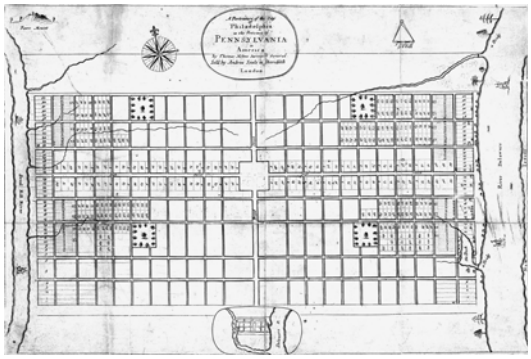
Independence National Historical Park
National Park Service
U.S. Department of the Interior









Cultural Landscape Report *for*
WASHINGTON SQUARE

Independence National Historical Park
Philadelphia, Pennsylvania

Prepared by

DHM Design
Denver, CO

Pressley Associates
Cambridge, MA

RK&K Engineering
Baltimore, MD

September 2010
Revised February 2011



Cultural Landscape Report

for

WASHINGTON SQUARE

National Park Service, Independence National Historical Park

Philadelphia, Pennsylvania

Prepared by

DHM Design
Denver, CO

Pressley Associates, Landscape Architects
Cambridge, MA

RK&K Engineering
Baltimore, MD

September 2010
Revised February 2011

ACKNOWLDEGMENTS

This Cultural Landscape Report has been a collaborative effort between the National Park Service, Independence National Historical Park and the consultant team. Special thanks and credit go to the cultural resources team at Independence NHP, particularly those who have contributed enormously to this effort: Susan Edens, Cultural Landscape Architect; Anna Coxe Toogood, Historian; and Karen Stevens, Archivist. The primary authors of this CLR are Christopher Beagan and Lauren Meier.

NATIONAL PARK SERVICE
Independence National Historical Park
Andrea Ashby, Library Technician
Derrick Black, Gardener Work Leader
Jane Cowley, Public Affairs Officer
Bill Double, Volunteer in Cultural Resource Management
BJ Dunn, Deputy Superintendent
Susan Edens, Cultural Landscape Architect
Doris Fanelli, Chief of Cultural Resource Management
Raymond Fossett, Facility Manager
Missy Hogan, Chief of Operations, Interpretation and Visitor Services
Cynthia MacLeod, Superintendent
Jean Marra, Chief of Maintenance
Karen Stevens, Archivist
Charles Tonetti, Chief Historic Architect
Anna Coxe Toogood, Historian

Olmsted Center for Landscape Preservation
Charlie Pepper, Deputy Director

CONSULTANT TEAM
DHM Design, Denver, CO
Robert Smith, Principal

Pressley Associates, Cambridge, MA
Marion Pressley FASLA, Principal
Lauren Meier ASLA, Project Manager
Christopher Beagan, Landscape Designer

RK&K Engineering, Baltimore, MD
Gary Thurman, Chief of Survey

IMAGE NOTES
Images contained in this Cultural Landscape Report are drawn from a variety of sources and may not be reproduced outside the body of this document without permission from the original source or repository, indicated on each caption. This technical report is not intended for commercial publication or sale.

TABLE OF CONTENTS

Cultural Landscape Report
for
Washington Square
Independence National Historical Park

Acknowledgments ii

Executive Summary xi

Introduction 0.1

Purpose 0.1
Relationship to Other Planning Documents 0.3
Description of the Cultural Landscape 0.5
Methodology 0.5

Chapter 1: Site History 1.1

Overview 1.1
Washington Square during the Colonial Period, 1682-1776 1.1
The Holme Plan, 1683 1.1
Pasture & Market Use 1.6
Potter's Field 1.9
African American Gatherings 1.10
Summary, 1682-1777 1.11
Capital City Improvements, 1776-1815 1.15
African Americans Continue to Protect the Square 1.17
Yellow Fever Epidemic of 1793 1.17
Landscaping Following the Close of Potter's Field 1.18
Building around the Square 1.26
Summary, 1777-1815 1.27
Bridport's Design, 1815-1881 1.33
Overview 1.33
Bridport's Design 1.35
Planting Improvements 1.42
François André Michaux, French Botanist and Explorer 1.46
Washington Monument 1.46
Decorative Furnishings & Portraits of the Square, 1820s-50s 1.49
Philadelphia Fountain Society & Use of the Public Square 1.54

Summary, 1815-1881 1.58
1843 Period Plan **1.67**
Dixey Plan, 1881-1913 **1.69**
Overview 1.69
Eisenhower's Tenure at the Bureau of City Property 1.73
New Site Features 1.78
Publisher's Square 1.78
Summary, 1881-1913 1.79
Olmsted Brothers Plan, 1913-1952 **1.83**
Overview 1.83
The Preliminary Plan, April 1913 1.88
Revised Preliminary Plan, July 1913 1.89
Fairmount Park Commission, 1915 1.91
Washington Square from the 1920s to the 1940s 1.95
Independence National Historical Park 1.106
Summary, 1913-1952 1.107
1917 Period Plan **1.111**
Brumbaugh Plan, 1952-1990 **1.113**
Washington Square Planning Committee, 1952 1.113
Memorial to the Unknown Revolutionary War Soldier 1.119
Urban Renewal in the Washington Square Neighborhood, mid-1950s 1.121
Washington Square Association, 1963 1.122
Bicentennial Improvements 1.124
National Register Designation, 1981 1.126
Summary, 1952-1990 1.127
Transition from the City of Philadelphia, Fairmount Park Commission to the National Park Service, 1990 to present **1.133**
Independence National Historical Park 1.133
Memorandum of Understanding, 1991 1.133
City Improvements, 1993-2003 1.134
National Park Service Stewardship 1.144
Society Hill Civic Association 1.144
Summary, 1990-present 1.145

Chapter 2: Analysis of Integrity and Significance 2.1

Introduction 2.1
Current Historic Status 2.1
Historic Context 2.4
National Park Service Thematic Framework 2.5
Historic Context Included in the Current NR Nomination 2.5
Additional Areas of Significance 2.9
Landscape Architecture: Bridport, Dixey, and the Olmsted Brothers Designs for Washington Sq. 2.9
Community and Neighborhood: African American Gathering & Burial 2.16

Historic Preservation and Commemoration in the Late 19th and Early 20th Centuries 2.19
Archeology: Colonial Period Burial 2.21
Public Horticulture: Washington Square as an Urban Arboretum 2.22
Landscape Integrity 2.24
Summary of Changes to the Washington Square Landscape, 1682 to present 2.24
Rabzak Diagrams for all Historic Periods 2.28
Contributing Resources and Character-defining Features 2.32
Statement of Significance 2.40
Recommendations 2.42

Chapter 3: Landscape Features 3.1

Introduction 3.1
Spatial Organization 3.1
Circulation 3.6
Vegetation 3.9
Site Systems & Furnishings 3.15
Statues & Memorials 3.26
Archeological Features 3.28
Existing Conditions Plan 3.33

Chapter 4: Treatment Recommendations 4.1

Introduction 4.1
Preservation Treatment Considerations 4.1
The Secretary of the Interior's Standards 4.5
Comparison of Treatment Alternatives 4.6
Treatment Recommendations 4.12
Overview 4.12
Spatial Organization 4.12
Circulation 4.12
Vegetation 4.14
Site Systems & Furnishings 4.21
Statues & Memorials 4.24
Structures 4.25
Maintenance Plan 4.25
Society Hill Civic Association 4.26
Recommendations for Additional Work 4.26
Treatment Plan 4.29

Sources 5.1

List of Repositories and Associated Collections 5.1
Bibliography 5.3

Appendices

A Site Survey (June 4, 2010)
B Memorandum of Understanding between the United States Department of the Interior and the City of Philadelphia, Pennsylvania through the Fairmount Park Commission (November 25, 2991)
C Washington Square Easement (May 18, 2005)
D National Register of Historic Places Nomination Form (1981)
E Survey of Washington Square Plaques & Waysides (January 2006)
F 2007-08 Tree Condition Assessment & 2010 Tree Inventory + Soil Survey
G Analysis of Historic Plant Lists
H Standards for Rehabilitation

List of Tables

2.1 Summary of Contributing and Non-contributing Resources 2.33
4.1 List of Trees recorded for Washington Square during the period of significance (1816-1957) 4.16
4.2 Shrubs noted in historic documents 4.18
4.3 Herbaceous plants noted in historic documents 4.18
4.4 Additional recommended shrubs 4.18

List of Figures

The following list includes abbreviated captions. For a full description and source, please see the full caption.

Executive Summary
1 Southwestern view from the central fountain plaza at Washington Square, fall 2009. xi
2 Existing conditions plan for Washington Square, 2010, revised February 2011. Xii
3 Approach to the Memorial to the Unknown Revolutionary War Soldier, fall 2009. Xiii
4 1843 period plan showing George Bridport's design for Washington Square. Xiv
5 1917 period plan showing the Olmsted Brother's design for Washington Square. Xiv
6 Central fountain basin and bluestone plaza, fall 2009. Xv
7 Study for the Memorial to Unknown Soldiers of the Continental Army by Brumbaugh Xvi
Introduction
0.1 Independence National Historical Park map. 0.2
0.2 Washington Square looking southeast from the center plaza, 2009. 0.4
0.3 Memorial to the Unknown Revolutionary War Soldier, 2009. 0.5
Chapter 1
1.1 1683 "A Portraiture of the City of Philadelphia in the Province of Pennsylvania in America by Thomas Holme, Surveyor General. Sold by Andrew Sowle in Shoreditch, London." 1.2
1.2 Richard Newcourt's 1666 plan for the rebuilding of London following the Great Fire. 1.3
1.3 1687 "A Mapp of Ye Improved Part of Pennsylvania in America" by Thomas Holme. 1.4
1.4 Denise Rabzak's period diagram for Washington Square, 1683. 1.5
1.5 Denise Rabzak's period diagram for Washington Square, early 1700s. 1.5
1.6 Detail of 1776 "Plan of the City of Philadelphia, the Capital of Pennsylvania from an actual survey by Benjamin Eastburn, Surveyor General." 1.7

1.7	Denise Rabzak's period diagram for Washington Square, mid-1700s.	1.8
1.8	Denise Rabzak's period diagram for Washington Square, 1776.	1.8
1.9	Detail of map "Philadelphia 100 Years Ago" completed in 1875 based on 1796 original by P.C. Varle	1.16
1.10	Detail of 1794 Davies map in Watson's Annals with later pen notes by J.F. Watson showing the course of Dock Creek and its tributaries.	1.20
1.11	Blueprint tracing of a 1795 map of Philadelphia.	1.21
1.12	Denise Rabzak's period diagram for Washington Square, 1796.	1.22
1.13	Detail of 1809 "A Ground Plat of the City of Philadelphia Marking the as[…] of Streets."	1.25
1.14	Denise Rabzak's period diagram for Washington Square, 1811.	1.26
1.15	Denise Rabzak's period diagram for Washington Square, 1820.	1.33
1.16	"Boys Playing Marbles in Washington Square" by John Carr, 1825.	1.35
1.17	George Bridport's November 1816 proposed plan for Washington Square.	1.36
1.18	George Bridport's November 1816 proposed alternative elevations for a memorial in Washington Square.	1.37
1.19	Etching by Edward Williams Clay, "A Promenade in Washington Square."	1.38
1.20	Circa 1835-40 plan of Washington Square attributed to Martien Maclean and William Rush by different scholars, from the Pennsylvania Horticultural Society.	1.39
1.21	William Rush's 1824 plan for Northeast (Franklin) Square.	1.40
1.22	1843 lithograph of an August 1842 survey of Washington Square by John B. Colahan.	1.41
1.23	1849 "Map of the City of Philadelphia" by J.C. Sydney, Civil Engineer & Surveyor.	1.42
1.24	Denise Rabzak's period diagram for Washington Square, 1833.	1.44
1.25	Detail from 1843 lithograph "Map of Washington Square" showing John Colahan's proposal for a monument to Washington.	1.48
1.26	Early 1830s photograph of South Washington Square.	1.50
1.27	1836 watercolor by David J. Kennedy showing the northwest corner of Washington Square.	1.52
1.28	Drawing by Frank Hamilton Taylor depicting the northwest corner of Washington Square.	1.53
1.29	Denise Rabzak's period diagram for Washington Square, 1849.	1.54
1.30	Circa 1840-6 competition entry for the Athenaeum of Philadelphia by John Notman.	1.55
1.31	Circa 1870 stereoscopic view of the Philadelphia Fountain Society's first drinking fountain.	1.56
1.32	1873 etching of the Philadelphia Savings Fund at the northwest corner of the square.	1.57
1.33	Denise Rabzak's period diagram for Washington Square, 1860.	1.58
1.34	Plate G of 1885 "Atlas of the City of Philadelphia" by Geo. W. & Walter S. Bromley.	1.70
1.35	Denise Rabzak's period diagram for Washington Square, 1885.	1.71
1.36	Detail of an 1886 "Perspective of Philadelphia" by Burk & McFetridge.	1.72
1.37	Plate from the 1895 "Street Atlas of Philadelphia by Wards" pub. by Charles D. Kaufmann.	1.73
1.38	1889 etching of the Philadelphia Savings Fund Society building at Seventh and Walnut	1.74
1.39	1904 *Philadelphia Inquirer* photograph of a police officer waking a napping man.	1.75
1.40	Photograph of the Washington Grays monument prior to 1939.	1.76
1.41	March 1902 photograph of Washington Square following a sleet storm.	1.77
1.42	March 1902 photograph of Washington Square following a sleet storm, showing "Lawyer's Row" and the 1900 D.A.R. memorial.	1.77
1.43	Detail of Bromley's 1908 "Atlas of Philadelphia."	1.79

1.44	1912 photograph of the Curtis Publishing Company building.	1.83
1.45	Denise Rabzak's period diagram for Washington Square, 1914.	1.84
1.46	April 1913 photograph of the Washington Grays monument.	1.85
1.47	January 1913 city survey traced from a blueprint made September 1894.	1.86
1.48	April 1913 Olmsted Brothers' preliminary design plan for Washington Square.	1.87
1.49	July 1913 Olmsted Brothers' revised preliminary plan for Washington Square.	1.90
1.50	Photograph of Christmas tree in Washington Square, 1913.	1.91
1.51	Pre-1916 hand-colored postcard of the Washington Grays monument.	1.92
1.52	1916 photograph looking toward Independence Square.	1.93
1.53	1917 view of the State House taken from near the northeast corner of Washington Square.	1.93
1.54	1919 aerial photograph of Washington Square showing the Olmsted Brothers renovations.	1.94
1.55	Denise Rabzak's period diagram for Washington Square, 1930.	1.95
1.56	1920 planting plan for improvements to the perimeter of the square by J.K. Lloyd.	1.96
1.57	1926 photograph showing the lavatory building near the northwest corner of the square.	1.97
1.58	Circa 1927 photograph along the eastern side of Washington Square.	1.98
1.59	January 1927 photograph of residences along the western side of the square.	1.99
1.60	Hand-colored postcard view of Washington Square postmarked 1932.	1.99
1.61	August 1927 aerial photograph of the northeast corner of Washington Square.	1.100
1.62	Women and children near the northwest corner of Washington Square in January 1932.	1.101
1.63	1941 *Philadelphia Inquirer* photograph on the south side of the square showing Gingko trees.	1.102
1.64	1941 photograph looking northeast toward the intersection of Sixth and Walnut Streets.	1.103
1.65	1927 view of the northwest corner of the square showing shrub planting at the entrance.	1.104
1.66	March 1947 traffic cut-off diagram from the *Philadelphia Inquirer.*	1.105
1.67	December 1931 aerial photograph of Washington Square and Independence Square.	1.106
1.68	Circa 1956 photograph showing construction of the Colonial Revival style perimeter wall.	1.114
1.69	Photograph of the northwest corner of Washington Square in 1956.	1.115
1.70	Circa 1952 sketch by G. Edwin Brumbaugh for Franklin-style lights in Washington Square.	1.116
1.71	Circa 1952 sketch by G. Edwin Brumbaugh for the entrance to Washington Square.	1.117
1.72	1952 plans by LeRoy E. Varner showing existing and proposed lavatories for the square.	1.118
1.73	Denise Rabzak's period diagram for Washington Square, 1957.	1.119
1.74	Circa 1952 plan by G. Edwin Brumbaugh for proposed "Memorial to the Unknown Soldiers."	1.120
1.75	Circa 1952 sketch by G. Edwin Brumbaugh for his proposed design of the "Memorial to the Unknown Soldiers of the Continental Army."	1.121
1.76	Washington Square Redevelopment Area Preliminary Site Plan, August 1961.	1.122
1.77	1964 aerial view of Washington Square looking west.	1.123
1.78	1965 aerial view of Washington Square looking northeast.	1.124
1.79	Circa 1974 sketch of proposed restrooms by Bartley Long Mirenda Reyonlds Architects.	1.125
1.80	1976 photograph of Bicentennial playground equipment in Washington Square.	1.126
1.81	1983 survey of Washington Square by Topographic Data Consultants, Inc.	1.127
1.82	*Philadelphia Inquirer* Magazine photograph, showing women on the base of the Washington Grays monument, located along the west side of Washington Square, c. 1940-50.	1.128
1.83	Denise Rabzak's period diagram for Washington Square, 1984.	1.129
1.84	Northeast view toward the center of the square prior to the replacement of the walks.	1.135

1.85 Laying new bluestone walks in Washington Square, November 2, 1998. 1.136
1.86 June 2002 photograph of deteriorated inscription on the memorial. 1.139
1.87 June 1998 photograph of walkway construction underway in front of the memorial. 1.140
1.88 June 2002 photograph of deteriorated pedestal on the memorial. 1.140
1.89 June 1998 photograph of guard house in the northwest quadrant of the square. 1.141
1.90 June 1998 photograph of guard house near the southeast corner of the square. 1.141
1.91 November 1998 photograph of wooden benches around the perimeter of the square. 1.142
1.92 2007 NPS, Olmsted Center tree condition assessment and inventory. 1.143
1.93 G. Edwin Brumbaugh's original 1956 design for the lily pad sculpture in the fountain. 1.144

Chapter 2

2.1 Map of the Society Hill Historic District. 2.4
2.2 1683 "A Portraiture of the City of Philadelphia in the Province of Pennsylvania in America by Thomas Holme, Surveyor General. Sold by Andrew Sowle in Shoreditch, London." 2.6
2.3 William Rush's 1824 plan for Northeast (Franklin) Square. 2.3
2.4 George Bridport's 1816 plan for Washington Square and detail of the 1843 lithograph of an August 1842 survey of Washington Square by John B. Colahan. 2.11
2.5 Elevation showing two alternatives for a memorial by George Bridport, November 1816. 2.11
2.6 Detail of Bromley's 1908 "Atlas of Philadelphia." 2.12
2.7 July 1913 Olmsted Brothers' revised preliminary plan for Washington Square. 2.14
2.8 W. Birch engraving of the Bethel African Methodist Episcopal Church. 2.17

Chapter 3

3.1 2009 aerial photograph of Washington Square. 3.1
3.2 Western view along South Washington Square of the brick perimeter wall, 2009. 3.2
3.3 Northwestern view showing the gradual slope away from the central plaza, 2009. 3.3
3.4 A minor entrance to Washington Square showing the perimeter brick wall, 2009. 3.4
3.5 Principal entrance at the southeast corner of Washington Square, 2009. 3.5
3.6 Northeast view toward Independence Square, 2009. 3.5
3.7 View of the D.A.R. Revolutionary War memorial (const. 1900), 2009. 3.5
3.8 Northeastern entrance to the square at the intersection of Walnut and Sixth Streets, 2009. 3.6
3.9 Seventh Street traffic cut-off at the northwestern corner of the square, 2009. 3.7
3.10 Low curb edge on pedestrian walks in Washington Square, 2009. 3.7
3.11 Northwestern view from the center of the square, 2009. 3.8
3.12 Eastern view along South Washington Square showing the perimeter brick sidewalk, 2009. 3.9
3.13 Street trees along Walnut Street, 2010. 3.10
3.14 General view of deciduous trees from the northeast corner of the square, 2009. 3.11
3.15 Bicentennial moon tree near the northeast entrance to the square, 2009. 3.12
3.16 View of shrubs near the southeastern corner of Washington Square, 2009. 3.13
3.17 Herbaceous plant material at the southeastern corner of the square, 2009. 3.14
3.18 Turf along the eastern side of the square, 2009. 3.15
3.19 Example of a drain inlet located in the border of the bluestone walks, 2009. 3.15
3.20 Spotlight directed at the American flag on the central fountain plaza, 2010. 3.16
3.21 Walkway lights in Washington Square, 2009. 3.16
3.22 Standard street light, installed 2005, at the northwest corner of the square, 2010. 3.17

3.23 Fountain basin and plaza at the center of Washington Square, 2009. 3.18
3.24 The Philadelphia Fountain Society's watering trough (const. 1869), 2010. 3.19
3.25 Irrigation heads in planting beds, 2010. 3.19
3.26 Teak bench and recycling receptacle near the center of the square, 2010. 3.20
3.27 Recycling receptacle near the side of the square, 2010. 3.21
3.28 Fourteen flagpoles flanking the approach to the memorial, 2009. 3.21
3.29 Flagpole plaque bearing the name of one of the thirteen colonies, 2010. 3.21
3.30 Metal bollards opposite the end of Seventh Street on the northern side of the square, 2010. 3.22
3.31 Arts and Crafts-inspired wooden guard house in the southeast corner of the square, 2009. 3.23
3.32 Wooden guard house to the northwest of the central fountain plaza, 2009. 3.23
3.33 Welcome to Washington Square identification plaque (added 2002), 2009. 3.24
3.34 Washington Square information and rules plaque at the northeast entrance, 2009. 3.25
3.35 Interpretive waysides (added 2002) near the northeast entrance to the square, 2009. 3.25
3.36 Parking pay kiosk along Walnut Street, 2010. 3.25
3.37 Steel tube bike racks at the northwest corner of the square, 2010. 3.26
3.38 Memorial to the Unknown Revolutionary War Solider (designed 1956), 2009. 3.26
3.39 Bronze cast of a standing figure of George Washington on the memorial, 2009. 3.27
3.40 D.A.R Revolutionary War memorial near the northeast corner of the square, 2009. 3.28

Chapter 4

4.1 Detail of Independence National Historical Park map. 4.2
4.2 Children playing around the fountain in Washington Square, 2010. 4.3
4.3 "World Pillow Fight Day" in Washington Square, 2010. 4.4
4.4 General view of Washington Square, spring 2010. 4.6
4.5 1952 plan of the fountain and memorial by Edwin Brumbaugh. 4.9
4.6 Revised Preliminary Plan by the Olmsted Brothers, Landscape Architects, 1913. 4.10
4.7 1842 survey showing implemented Bridport design for Washington Square. 4.11
4.8 Damaged bluestone curbing at the southeast corner of the square, 2010. 4.12
4.9 Existing brick sidewalk and bollards along Walnut Street, 2010. 4.12
4.10 Proposed re-paving of the triangle bordered by West Washington Square, Walnut Street, and the Seventh Street cut-off, showing the placement of additional bike racks. 4.13
4.11 Bicycle and motorcycle parked and locked on the triangle at Seventh and Walnut Sts., 2010. 4.14
4.12 Conceptual planting plan for the rehabilitation of the memorial. 4.19
4.13 Study sketch for the memorial by Brumbaugh. 4.20
4.14 Existing planting of Inkberry and roses around the memorial, 2009. 4.20
4.15 Existing hedge, curbing, and grass on the outside of the circular fountain court, 2009. 4.20
4.16 Existing lamp post in Washington Square, 2009. 4.20
4.17 Brumbaugh sketch for Colonial Revival light fixtures in Washington Square. 4.20
4.18 Rules sign near the fountain with laminated paper cell phone tour information, 2009. 4.21
4.19 Damaged sign at the entrance to Washington Square, 2009. 4.21
4.20 Existing waysides in Washington Square, 2009. 4.23
4.21 Existing teak bench in Washington Square with memorial plaque, 2009. 4.23
4.22 Southeast guard house, 2009. 4.25

EXECUTIVE SUMMARY

Overview

Originally known as Southeast Square, Washington Square belongs to a group of five squares originally laid-out by William Penn and his surveyor-general Thomas Holme in 1682 when they established the street grid for the city of Philadelphia. In 1825, the original squares were renamed in honor of important American figures: Washington, Franklin, Logan, Rittenhouse and Penn. Today, Washington Square is a 6.4-acre urban park bounded by city streets on all sides and adjoining Independence Square at its northeast corner, and is managed by the National Park Service as part of Independence National Historical Park. Washington Square was listed on the National Register of Historic Places in 1981 under "The Four Public Squares of Philadelphia Thematic Resource."

Beyond its original concept by Penn and Holme, Washington Square has a rich history that reflects the growth and development of Philadelphia. The boundaries of the current square are largely as specified in the city plan drawn by Thomas Holme in 1683. Of the original squares, Washington Square is the only one to have been granted a patent specifically for burials and until 1794 the square functioned as a potter's field, as well as the site of burials associated with the Revolutionary War for victims of the yellow fever epidemic. Trees for ornamental purposes were first introduced around 1794, and this practice expanded dramatically in the first half of the nineteenth century, guided by the design work of George Bridport and others, who also developed the square with a symmetrical path system for promenading.



Figure 1: *Southwestern view from the central fountain plaza at Washington Square, fall 2009 (Pressley Associates).*

Subsequent re-designs of the square include work by William Dixey (1881), Olmsted Brothers (1915) and G. Edwin Brumbaugh (1957), who preserved the essential concept of a symmetrical urban square with a developed tree canopy. The first official Washington monument was installed in the last major renovation by Brumbaugh; it is part of the Memorial to the Unknown Revolutionary War Soldier.

While Washington Square is owned by the city of Philadelphia, the National Park Service (NPS) acquired an easement in 2005 and is now responsible for the care and control of the landscape. Prior to the transfer to NPS, the city undertook a number of capital projects to improve the condition of the square, including replacement of many of the existing furnishings and repaving walks. At the same time, NPS undertook numerous studies to better understand the history of this important property, and these studies form the foundation for this Cultural Landscape Report (CLR).

This CLR consolidates the information contained in previous studies, combined with additional research related to the landscape's history and significance, and sets forth recommendations for its future treatment and management as an integral component of Independence National Historical Park.

Current Condition

The project area for the Washington Square CLR is defined by the perimeter streets that surround the square: Walnut Street to the north, South Washington Square to the south, South Sixth Street to the east, and West Washington Square to the west. The perimeter of the square includes brick sidewalks that are separated from the interior of the square by a perimeter Colonial Revival brick wall. The brick sidewalks are interrupted by bluestone pavement at the primary corner entrances to the square, which lead park visitors into the interior.

Within the square, bluestone walks lead to a central plaza with memorial basin and fountain. The square also includes a noteworthy collection of memorials and plaques, most notably the Memorial to the Unknown Revolutionary War Soldier, located to the west of the central plaza, which features the tomb of the unknown Revolutionary War soldier, as well as a bronze statue to the square's namesake, George Washington, modeled after Jean Antonie Houdon's standing figure of Washington (1785).

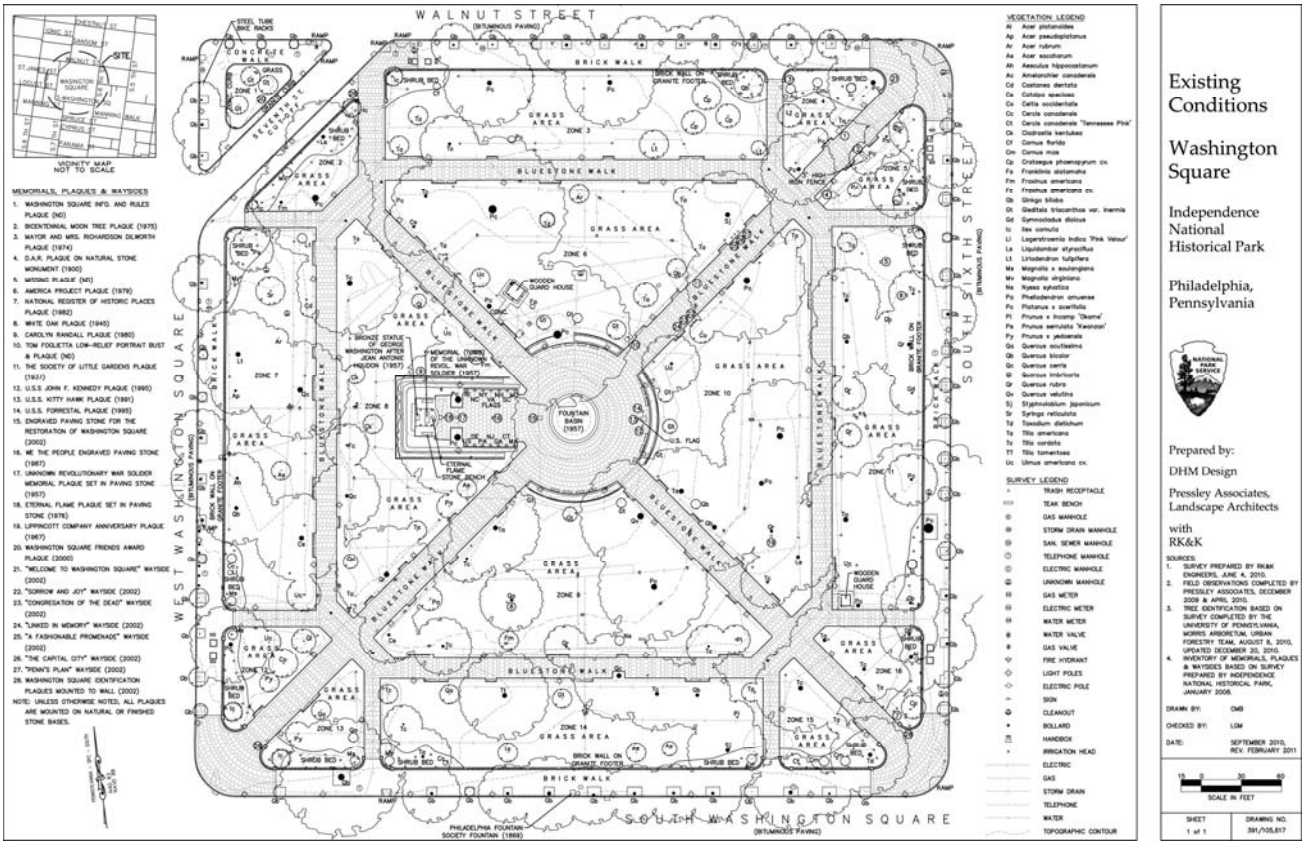


Figure 2: *Existing conditions plan for Washington Square, 2010, revised February 2011 (Pressley Associates).*

The square also includes an important collection of specimen trees over lawn, as well as shrubs and herbaceous plant material, located in planting beds around the central plaza and memorial and at each of the entrances to the square. Other structures within the square include two guard house buildings that relate to Fairmount Park's stewardship of the square and a watering trough/fountain located along South Washington Square, the first fountain constructed by the Philadelphia Fountain Society in 1869.

At present, Washington Square is in excellent condition. Given that the square has been redesigned numerous times throughout its three hundred plus-year history, it retains varying levels of integrity relative to each redesign. With respect to the most recent redesign of the square by architect G. Edwin Brumbaugh in the 1950s, the square retains a high level of integrity, diminished only by changes in furnishings and small-scale features and a change in surface material along the perimeter. Some new, non-historic plant material has also been added to the square since the 1950s, primarily new trees when the square was renovated by the City prior to the transfer of care to NPS and the new shrubs and herbaceous plant material introduced on an ongoing basis by the Society Hill Civic Association. Still, the square retains a significant and impressive collection of historic trees.

Significance

Washington Square is significant at the state level for its association with the founding of Philadelphia (1682) and the nation during the American Revolution, including the role the square played in the African American history of Philadelphia. Washington Square is also significant for the role it played in the national commemoration of George Washington and the Revolutionary War, which ultimately resulted in Brumbaugh's design for the Memorial to the Unknown Revolutionary War Soldier.



Figure 3: *Approach to the Memorial to the Unknown Revolutionary War Soldier, fall 2009 (Pressley Associates).*

Washington Square also contains an unknown number of archaeological resources that relate primarily to the burials that took place from the early 1700s, through the Revolutionary War era, until the square was closed as a public burial ground in 1794. Numerous archaeological investigations undertaken to date revealed buried human remains as well as physical evidence of human activity on the square, including earlier landscape features.

Washington Square is also noteworthy as an extant early example of one of the first urban squares in the U.S. and an integral component of William Penn's plan for Philadelphia. John Reps noted in his 1969 history of urban planning, "in setting aside the four smaller squares…they [Penn and Holme] established America's first designated public parks."[1] The design evolutions represented by the Bridport, Dixey, and Olmsted Brothers plans are an important facet of the square's history. Bridport was the first to draw a radially symmetrical design for the square in 1816, with diagonal promenades connecting to each street corner. Bridport's diagonals were the first such design implemented in Philadelphia's public squares. The layout was modified by City Commissioner William Dixey in 1881, who also contributed to the redesign of Independence Square around the same time. In spite of the later revised plan, the diagonals remain today.

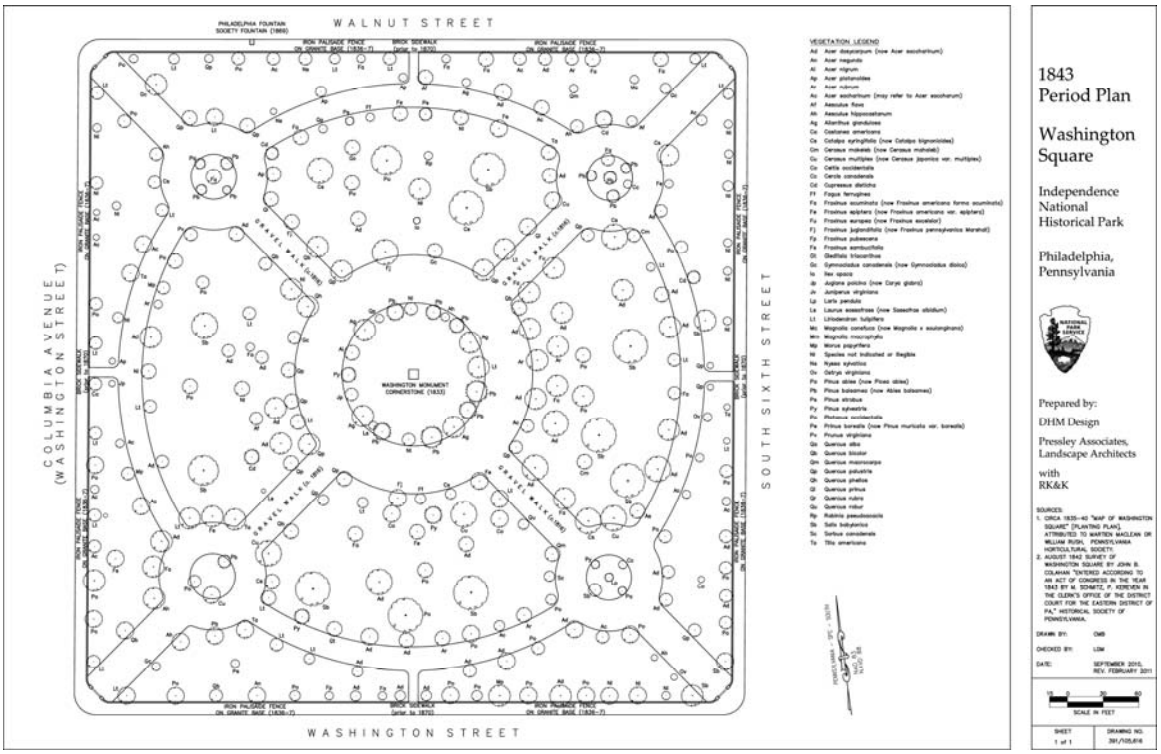


Figure 4: *1843 period plan showing George Bridport's design for Washington Square (Pressley Associates).*

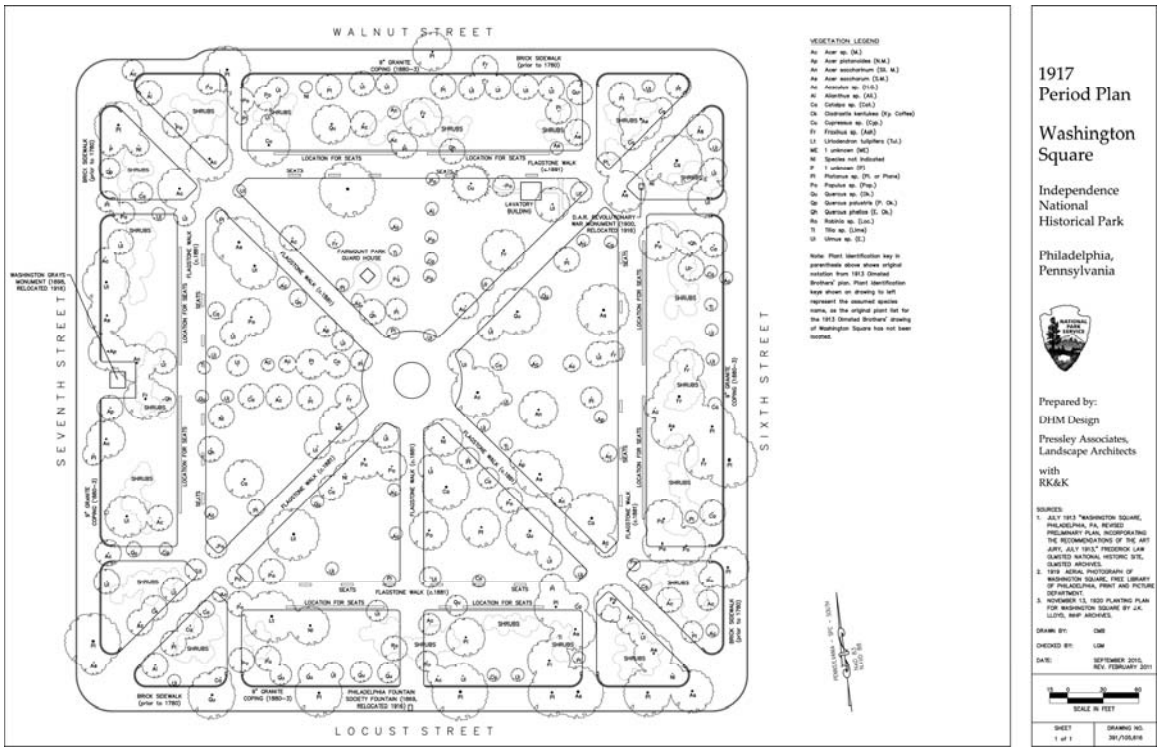


Figure 5: *1917 period plan showing the Olmsted Brother's design for Washington Square (Pressley Associates).*

The great arbiter of American taste Andrew Jackson Downing wrote of Washington Square in 1853:

> We do not forget that large and sylan [*sic*] park, with undulating surface, the Boston Common, or that really admirable city *arboretum* of rare trees, Washington Square of Philadelphia (Which probably contains more well grown specimens of different species of forest-trees, than any similar space of ground in America). Their groves are as bellowed and sacred in our eyes, as those of *Deo-dar* are to the devout Brahmins.[2]

Washington Square is also significant as a continuously maintained urban space with a diverse tree collection that illustrates the relationship between the square and Philadelphia's important role in the development of horticulture in America.

Preservation Issues

Preservation challenges at Washington Square today relate primarily to long-term management of a significant urban landscape, in which the retention of the tree collection is essential to the historic character and integrity of the square. Future changes should be carefully considered to ensure that they do not further reduce the integrity of the landscape. Modifications to the square undertaken prior to the transfer to the NPS improved the overall condition of the landscape, but included the removal of historic fabric. These changes included the complete in-kind replacement of the bluestone paving, replacement of benches and trash receptacles, replacement of the Brumbaugh lights with a modified design, the addition of new interpretive signage, as well as the removal of dead and hazardous vegetation and the installation of trees and shrubs as part of a new planting plan. The square's perimeter sidewalks were also repaved in brick between the corner entrances, replacing the earlier bluestone sidewalks.



Figure 6: *Central fountain basin and bluestone plaza, fall 2009 (Pressley Associates)*

Recommendations

With a few exceptions, Washington Square is in overall good condition; very few urgent issues require intervention, repair, alteration, or new additions. Therefore, the recommendations included in this CLR focus primarily on ensuring that the square remains in good condition and that it continues to convey the features, materials, and spaces that give it significance and historic integrity. To that end, this CLR evaluates each of the four treatment approaches for the square, with the ultimate recommendation of a rehabilitation approach. Rehabilitation would focus on retaining and improving the historic character of the landscape, while continuing contemporary uses on the site and improving overall condition.

Detailed, site-specific treatment recommendations are contained in the treatment chapter. The most urgent item requiring attention is the stabilization of the southeast guard house. Other recommendations emphasize long-term management of the vegetation as this is an important part of Washington Square's history and its significance as an urban square. The CLR recommends rehabilitation of the vegetation at the Memorial to the Unknown Revolutionary War Soldier to more closely reflect Brumbaugh's design intent, as well maintaining a diverse collection of trees over lawn within the square. The preservation of the historic tree collection is a priority, and the CLR provides guidelines for retention and replacement. To that end, an appropriate balance of shrub planting beds relative to trees over lawn should be maintained in the square as well.

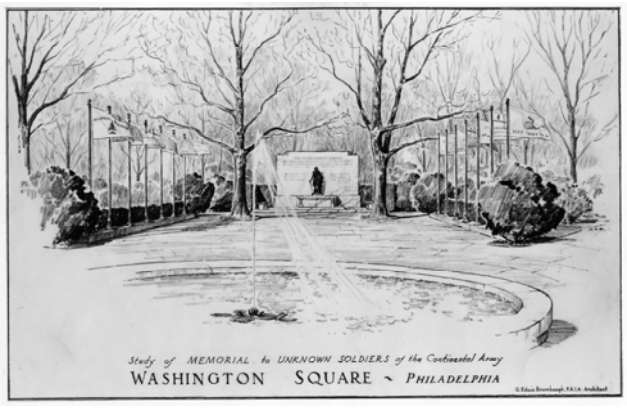


Figure7: *Study for the Memorial to Unknown Soldiers of the Continental Army, Washington Square, Philadelphia by Brumbaugh showing the original concept for planting surrounding the flag court (Courtesy, The Winterthur Library: Joseph Downs Collection of Manuscripts and Printed Ephemera).*

The existing light fixtures within the square are not historic and were added by the City of Philadelphia during the most recent rehabilitation. The overall character of the lamppost and heads is larger and bulkier than the original Colonial Revival fixtures designed by G. Edwin Brumbaugh, which had a longer and narrower profile, so the current lights appear awkward in the landscape. The traffic island at the northwest corner of the square was added in 1947 to alleviate congestion at the Walnut Street crossing. However, the current surface treatment on the sidewalk does not tie the island to the larger landscape of the square. This area requires rehabilitation to visually convey that it is part of Washington Square and to improve the clutter of small scale features along the sidewalk.

This CLR also recommends several follow-up studies to build upon the information contained in this report, including a historic resource study focused on civic associations and volunteer organizations that have worked to preserve and enhance Washington Square; detailed design plans for the Memorial to the Unknown Revolutionary War Soldier landscape; a maintenance plan; a formal agreement with the Society Hill Civic Association regarding additional planting in the square; a signage plan with comprehensive standards for Washington Square consistent with the new standards for Independence National Historical Park; a presentation of finding of this CLR to the City of Philadelphia, Society Hill Civic Association and other interested parties; an annotated chronology of historic events, design plans, and physical changes to Washington Square based on the Site History section of this CLR; an update to the RK&K survey using the City of Philadelphia datum; further research and analysis of the historic tree composition of Independence National Historical Park; and a lighting study in anticipation of the replacement of the existing non-historic features.

Endnotes

[1] John W. Reps. *Town Planning in Frontier America*. Princeton, NJ: Princeton University Press, 1969, p. 213.

[2] Andrew Jackson Downing. *Rural Essays*. New York, NY: Putnams, 1853, p. 305.

INTRODUCTION

Washington Square, originally known as Southeast Square, is one of the five original squares laid out in 1682-3 by William Penn's surveyor, Thomas Holme for the colonial city of Philadelphia. In 2005, the City's Fairmount Park Commission granted an easement over the 6.4-acre urban park to the National Park Service, and Washington Square is now part of Independence National Historical Park (INDE). The square has, over its lifetime, served as a potter's field, Revolutionary War burial ground, pasture, market place, public square, commemorative landscape, and urban park. It is also the home of the Memorial to the Unknown Revolutionary War Soldier. While the general boundary of the square has remained relatively consistent over time, changing land uses surrounding Washington Square and the evolution of the city of Philadelphia have influenced the use and configuration of the landscape. Today, it is a well used and important cultural landscape and verdant oasis, integral to the history and vitality of the city, and regularly used and appreciated by city residents, visitors, and workers.

Purpose

Washington Square has been the subject of or included in several cultural resource studies, including the "National Register of Historic Places Nomination Form: Four Public Squares of Philadelphia Thematic Resource" (1981), "Washington Square in Historic Society Hill Philadelphia: A Site Plan Chronology 1683-1984" by Denise Rabzak (1987), two archaeological reports by John Milner Associates (1996, 2000), a related, two-volume "Cultural Landscape Report for Independence Square" (1998) by Anna Coxe Toogood et al, "Washington Square: Bibliography of Source Material" by Wendy Woloson (2000), and a "Tree Inventory/Condition Assessment" by the NPS Olmsted Center (2007-8). Each of these documents provides an important perspective on the history and condition of Washington Square.

Several histories of Philadelphia also served as valuable resources related to the history of the square, including John F. Watson's *Annals of Philadelphia and Pennsylvania in the Olden Time* (1857), J. Thomas Scharf and Thompson Westcott's *History of Philadelphia, 1609-1884* (1884), and Joseph Jackson's *Encyclopedia of Philadelphia* (1933), as well as James Francis Dallett's *An Architectural View of Washington Square* (1968).

With the transfer of Washington Square from City stewardship to the National Park Service (NPS), this Cultural Landscape Report (CLR) provides a method for consolidating the aforementioned information with additional research related to the landscape's history and significance, and sets forth recommendations for its future treatment and management as an integral component of Independence National Historical Park.

The NPS defines CLRs as the primary guide for establishing treatment and use of cultural landscapes. A CLR typically analyzes a landscape's geographic context, development and evolution, materials, construction techniques, and use in all periods, including those deemed not significant. To that end, the CLR documents, analyzes, and evaluates historical, architectural, archeological, ethnographic, horticultural, landscape architectural, engineering, and ecological data as appropriate. A CLR makes recommendations for treatment

consistent with the landscape's significance, condition, and use, following the *Secretary of the Interior's Standards for the Treatment of Historic Properties.* CLRs are prepared in one or more parts; Part 1 constitutes history, existing conditions, and analysis of integrity and significance; Part 2 contains treatment recommendations; and Part 3 is a record of treatment work. This CLR contains Parts 1 and 2.

In the case of Washington Square, the CLR also serves to combine and organize the broad range of source material into a single reference document that can be easily used by the NPS staff as a reference document for future planning and design, and as background information for review and compliance.

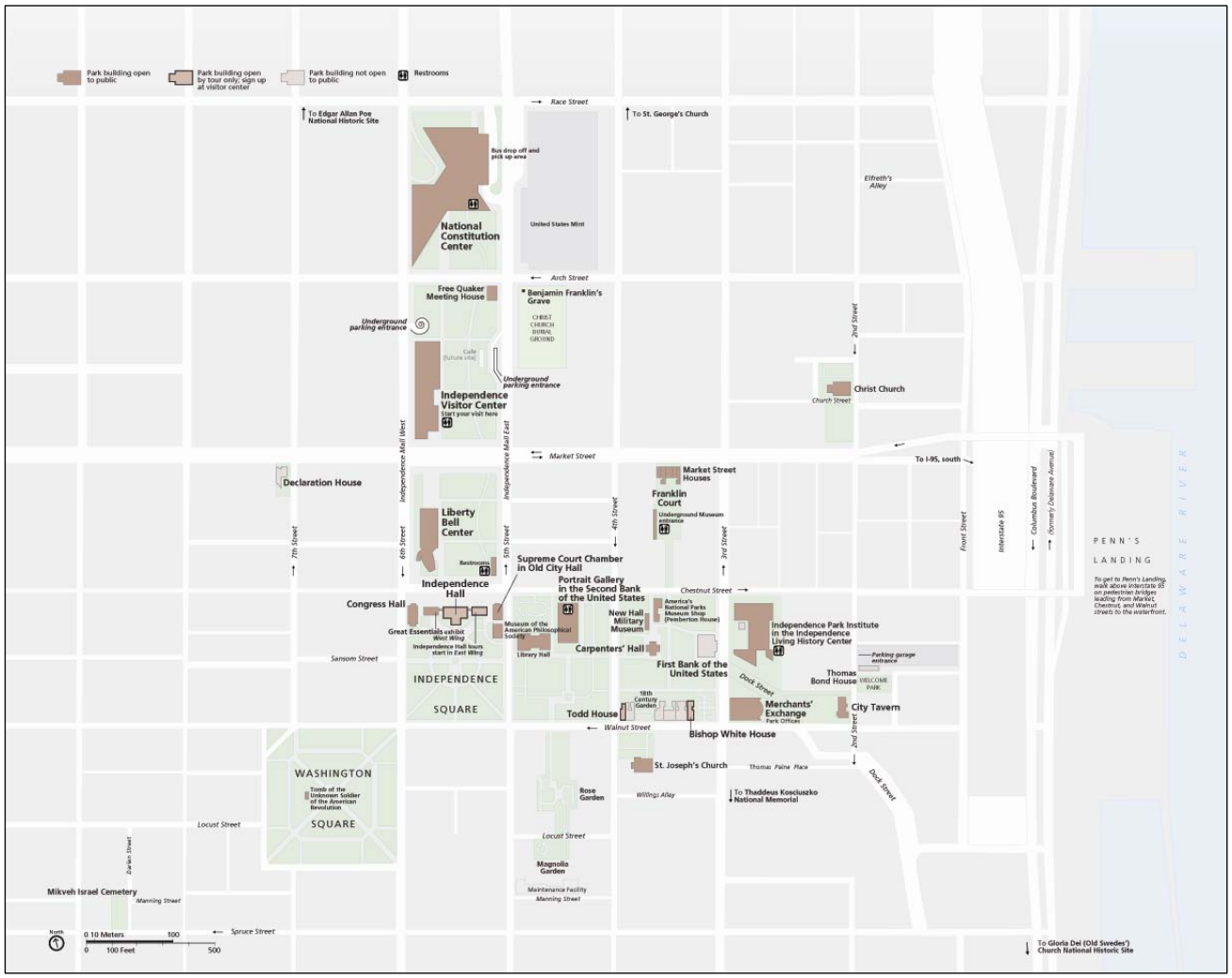


Figure 0.1: *Independence National Historical Park, excluding satellite properties (DEMO, EDAL, GLDE) located outside the 'Center City' area plan area; Washington Square is in the lower left (National Park Service).*

Relationship to Other Planning Documents

Independence National Historical Park occupies over fifty acres in the Old City section of Philadelphia. The park was established in 1956 to preserve and interpret the buildings, sites, and artifacts associated with the American Revolution and Philadelphia's founding role as the nation's capital city. This includes nationally significant historic buildings and landscapes such as Independence Hall, Congress Hall, Old City Hall, and Independence Square, as well as other park features that provide educational and museum experiences for park visitors, including the Liberty Bell Center, Independence Visitor Center, and the National Constitution Center located on Independence Mall. The NPS has a well-established and organized planning and stewardship approach for the park, which includes the specialized studies listed above, as well as a *General Management Plan* and *Interpretive Plan* that set the long term vision, goals, and direction for the management of Independence National Historical Park

Memorandum of Understanding

In November, 1991, the City of Philadelphia and the National Park Service entered into a Memorandum of Understanding (MOU) related to the future of Washington Square. The MOU authorized the Secretary of the Interior and the Fairmount Park Commission to work collaboratively to "preserve, protect, interpret and maintain" Washington Square in recognition of its importance to the history of the American Revolution. The MOU sets in motion an important sequence of events that would ultimately result in the transfer of care and control of Washington Square to the National Park Service, with specific actions identified for both the NPS and the City. The NPS agreed to add the square to Independence NHP once it is "restored, repaired and rehabilitated," and the Secretary of the Interior formerly designated the square as part of the national park; once this occurred, the NPS will "manage, maintain, operate, protect and interpret" Washington Square as part of Independence NHP. At the same time, the City of Philadelphia agreed to work with a third party to "restore, repair, and rehabilitate" Washington Square and relinquish control over Washington Square through the donation of an easement. The MOU also stipulates that the NPS "seek the Commission's approval for any capital improvements or structural changes."[1]

The MOU was signed by all parties on November 25, 1991. In 1993, the City and Secretary of the Interior acknowledged the role of the American Revolution Patriots Fund, as a party to the MOU as Amendment #1 to "raise and management funds to accomplish the goals of the MOU."[2] Subsequent amendments established an agreement between the NPS, City and the American Revolution Patriots Fund; addressed time extensions related to the completion of the rehabilitation work; and finally acknowledged the success of the City and American Revolution Patriots Fund in completing the rehabilitation work, making it possible for the City to donate an easement "for use and occupancy" of Washington Square. On May 24, 2005, title was granted in perpetuity through the donation of an easement on land at 600 Walnut Street, from the City of Philadelphia through its Fairmount Park Commission to the United States of America, Department of the Interior, National Park Service.

General Management Plan (GMP)

The *Final General Management Plan and Environmental Impact Statement for Independence National Historical Park* (1997) presents recommendations to meet the goals of the park in its mission to preserve and interpret Philadelphia's role in the founding of the nation from 1775-1800. The GMP was completed after the creation of the aforementioned MOU, but before Washington Square was officially acquired by

the NPS. Regardless, the square is clearly and directly addressed in the document:

> This city block will be transferred to the National Park Service when it is rehabilitated by the Fairmount Park Commission and the American Revolution Patriots' Fund, in accordance with a 1991 agreement. In addition to its current uses as a neighborhood park and memorial to the Unknown Soldier of the Revolution, Washington Square will become a place for interpretation about the 18th century African-American experience.[3]

The GMP establishes management zones for the park, which guides the general approach for improvements. Washington Square is not zoned per se, since it was not yet under the care and control of the National Park Service. The 3-block area surrounded by Chestnut Street, 3rd Street, Walnut Street and 6th Street, which includes Independence Square and numerous historic buildings and landscapes, is designated as a "Cultural Zone;" Independence Mall is a "Park Development Zone." Interpretive themes, which define the stories carried through park interpretive and educational programs, are also defined in the GMP, and developed further in the park's *Interpretive Plan* described below.

Long-Range Interpretive Plan

Independence NHP and the NPS Harpers Ferry Center completed the Long-Range Interpretive Plan (LRIP) for the park in 2007; this important document is a component of the NPS Comprehensive Interpretive Planning (CIP) process, which defines the "overall vision and long-term (5-7 years) interpretive goals of the park." The LRIP defines interpretive themes, which illustrate the important stories and core messages of the park:

- What was Revolutionary about the American Revolution?
- Liberty: The promises and the paradoxes;
- E Pluribus Unum: Out of Many, One;
- Benjamin Franklin – the relevant revolutionary.

Washington Square is specifically identified as a site relevant to the first three themes.



Figure 0.2: *Washington Square looking southeast from the center circle (Pressley Associates, 2009).*

National Resister Nomination

Washington Square is one of four landscaped squares included in the National Register Nomination titled "The Four Public Squares of Philadelphia Thematic Resource," approved in 1981. This designated the square on the National Register of Historic Places, a list of buildings, structures, sites and objects significant to the history of the nation. The 1981 nomination form notes the following:

> The importance of Washington Square to its neighborhood over almost two centuries has remained even as its immediate surroundings changed from residential to commercial and institutional. It is best expressed by the Horticulture Society's 1831 report: "…salubrity is diffused throughout the neighborhood and to the city generally, and recreation afforded to the assiduous citizen, where he may view four hundred trees in the midst of a populous and busy city… The whole is beautifully kept, and well illuminated at night…all showing the correct and liberal spirit of our city."[4]

The implication of listing Washington Square on the National Register of Historic Places is most importantly official recognition that the landscape is indeed historic. Federally-funded physical work undertaken on designated cultural resources is also subject to Section 106 review and compliance, consistent with 36 CFR, Part 800, which provides for protection of historic properties. This CLR expands the baseline National Register documentation (description + significance statement) further through a more detailed history, inventory of landscape features, and the analysis discussion of potential areas of significance, periods of significance, and discussion of contributing resources/features.

Description of the Cultural Landscape

Washington Square comprises a full city block 6.4 acres in size, bordered by Walnut Street (north), South 6th Street (east), South Washington Square (south), and West Washington Square (west). South 7th Street cuts diagonally through the northwest corner of the square. The landscape today reflects the layout of the Olmsted Brothers firm (1915) with improvements made by G. Edwin Brumbaugh with the addition of the perimeter wall (1956) and the Memorial to the Unknown Revolutionary War Soldier, including the central fountain and sarcophagus containing the remains of a Revolutionary War soldier (1957), as well as a recent rehabilitation work completed 1997-2004 prior to acquisition of an easement by the National Park Service.

The square is distinguished by diagonal walkways leading to a central circle and fountain. A square alignment of paths parallels the adjacent streets and defines a series of grass panels informally planted with mature specimen trees. Benches and Colonial Revival lights are located along the walks, giving the square a sophisticated, urbane character. The Memorial to the Unknown Revolutionary War Soldier forms a rectangular courtyard west of the central circle, with thirteen flagpoles representing the original colonies. A statue of George Washington stands in front of an inscribed wall with an eternal flame in front. Numerous small memorials and interpretive signs are scattered along the existing paths and two small buildings, formerly guardhouses, lie on the diagonal paths near the northwest and southeast corners. The square is a popular destination for residents, dog-walkers, office workers, and tourists.



Figure 0.3: *Memorial to the Unknown Revolutionary War Soldier (Pressley Associates, 2009).*

Methodology

This CLR utilizes primary and secondary historical research, a topographic survey, field research, electronic mapping, and consultations with NPS staff and other knowledgeable individuals to acquire the information that forms the narrative and graphic content of this document. The organization of the CLR follows the methodology already established for nearby Independence Square, except that this CLR is presented in a single volume. The first chapter, Site History, presents a narrative, illustrated history of the physical development of Washington Square, accompanied by two Period Plans that graphically depict the configuration of the square at critical points in its history - 1843 and 1917. Chapter Two addresses the integrity and significance of the

landscape, noting areas of significance and the degree to which Washington Square retains the features, materials, and spaces from each of its historic periods. Chapter Three presents and inventory and condition assessment of landscape features, including an Existing Conditions Plan that is based on the new topographic/boundary survey and field observations completed in spring 2010. Chapter Four (to be provided in the next draft) establishes treatment goals and objectives for physical work consistent with the "Secretary's Standards," and defines a recommended treatment approach with Treatment Plan.

Endnotes

[1] "Memorandum of Understanding Between United States Department of the Interior and City of Philadelphia, Pennsylvania Through the Fairmount Park Commission." Agreement Number MU-SECY-1-9001, 1991, p. 4

[2] "Amendment #1 to Memorandum of Understanding, Agreement Number MU-SECY-9001, Dated November 25, 1991 Between United States Department of Interior and City of Philadelphia, PA Through the Fairmount Park Commission." Signed by the Secretary of the Interior on April 19, 1993.

[3] National Park Service. *Final General Management Plan, Environmental Impact Statement,* Independence National Historical Park (Philadelphia, PA, 1997), p. 5.

[4] Trina Voux. National Register of Historic Places Inventory – Nomination Form, 1981, citing J. Thomas Scharf and Thompson Westcott. *History of Philadelphia, 1609-1884*, Vol. III. Philadelphia, PA: L.H. Everts & Co., 1884, pp. 1845-46.

CHAPTER 1

SITE HISTORY

Overview

This chapter describes the historical development of Washington Square, originally called Southeast Square, beginning with its original layout as one of the five original squares of William Penn's plan for the City of Philadelphia, and concluding with the transfer of care and control of the square from the City of Philadelphia to the National Park Service. The historic periods presented below correspond with major periods of landscape change and design, even though the physical use of the square may have varied. As such, they represent the time bracket in which the character of the square remained largely the same, even after a major change was made or design implemented. Key historic periods include Washington Square during the colonial period (1682-1776), capital city improvements (1776-1815), Bridport design (1815-1881), Dixey plan (1881-1913), Olmsted Brothers plan (1913-1952), Brumbaugh plan (1952-1990), and the transition from Fairmount Park Commission to the National Park Service (1990 to present).

This chapter is comprised of narrative text documenting the often numerous, smaller modifications that took place during each period, accompanied by illustrations. Two period plans (1843 and 1917) document the appearance of the landscape at critical points in its history. Since the level of plan and photographic evidence varies substantially for each of these historical periods, much of the earlier history of the square focuses on land use and historical events, rather than physical changes.

Washington Square during the Colonial Period, 1682-1777

The Holme Plan, 1683

William Penn (1644-1718) became the governor and proprietor of Pennsylvania in the spring of 1681 when Charles II signed a charter and in exchange for cancellation of a debt he owed Penn's father (d. 1670) of £16,000.[1] Penn was experienced with city planning; previously, he was involved with the planning of two towns on the New Jersey shore, Burlington in 1766 and Perth Amboy, settled at the same time as Philadelphia. In the spring of 1682, Penn appointed Thomas Holme as Surveyor General of Pennsylvania. Holme arrived in Philadelphia in June 1682, and from June to September he worked with the city commissioners to plan the layout of the eastern portion of Philadelphia. Whether or not the design of the city provided for the public squares at this time cannot be determined.[2]

By early 1683, Philadelphia was beginning to take physical shape; many lots had already been surveyed and conveyed to new owners and the first buildings erected. Eighty houses were complete and the city continued to grow quickly.[3] In an effort to attract additional settlers to Philadelphia, in 1683 a comprehensive plan of the city by Holme was published in London.[4] This plan, "A Portraiture of the City of Philadelphia in the Province of Pennsylvania in America," sold by Andrew Sowle in Shoreditch, London, is the first to show Southeast Square, as Washington Square was originally named (Figure 1.1).

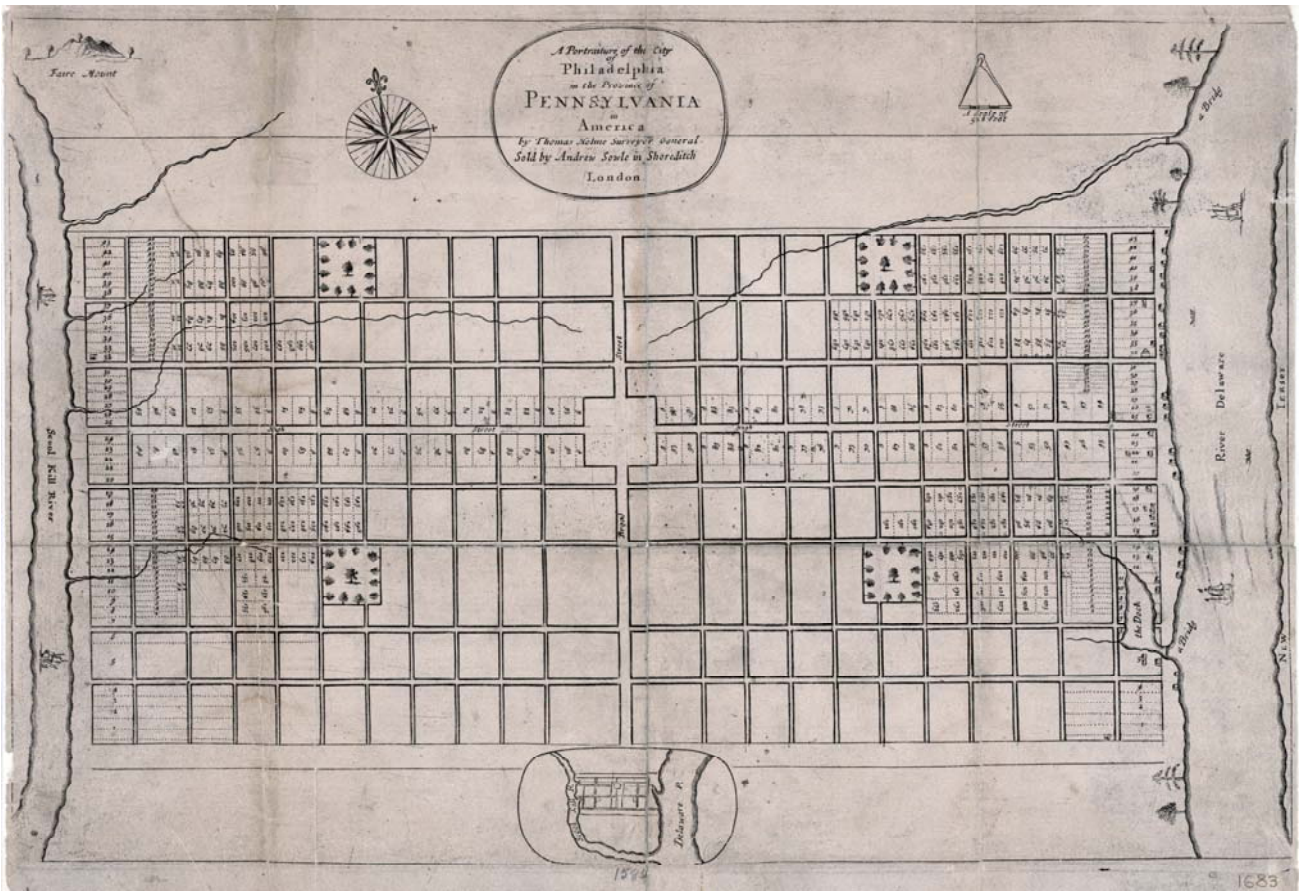


Figure 1.1: *1683 plan of Philadelphia titled "A Portraiture of the City of Philadelphia in the Province of Pennsylvania in America by Thomas Holme, Surveyor General. Sold by Andrew Sowle in Shoreditch, London." Southeast Square is shown in the lower right quadrant of the map. Note the presence of Dock Creek with a wider block on the street grid between Walnut and Spruce Streets (The Map Collection, Free Library of Philadelphia).*

The 1683 Holme plan consists of a rectangular street grid extending between the Delaware and Schuylkill Rivers, with a central square and four smaller squares in roughly the northeast, southeast, southwest, and northwest quadrangles of the city. In early Philadelphia, the squares were named for their geographical relationship to one another, in accordance with the Quaker avoidance of naming for persons.[5] On the 1683 Holme plan, Southeast Square is graphically depicted as an open rectangle with a central tree, bordered by a row of four trees on the east and west sides, and two trees on the north and south sides.

It is often suggested that the precedent for the plan of Philadelphia is Richard Newcourt's (circa 1610-1679) proposal for the design of London following the Great Fire of 1666. This plan also featured a rectangular street grid, large central square, and four smaller squares in each of the four quadrangles. It has also been suggested, however, that the apparent visual similarities may be coincidental (Figure 1.2).[6]

The description of the city prepared by Holme to accompany the plan reads, "in the Centre of the City is a Square of ten Acres; at each Angle are to be houses for Publick [*sic*] Affairs…there are also in each Quarter of the City a Square of eight Acres to be for the like Uses, as the Moore-fields in London."[7]

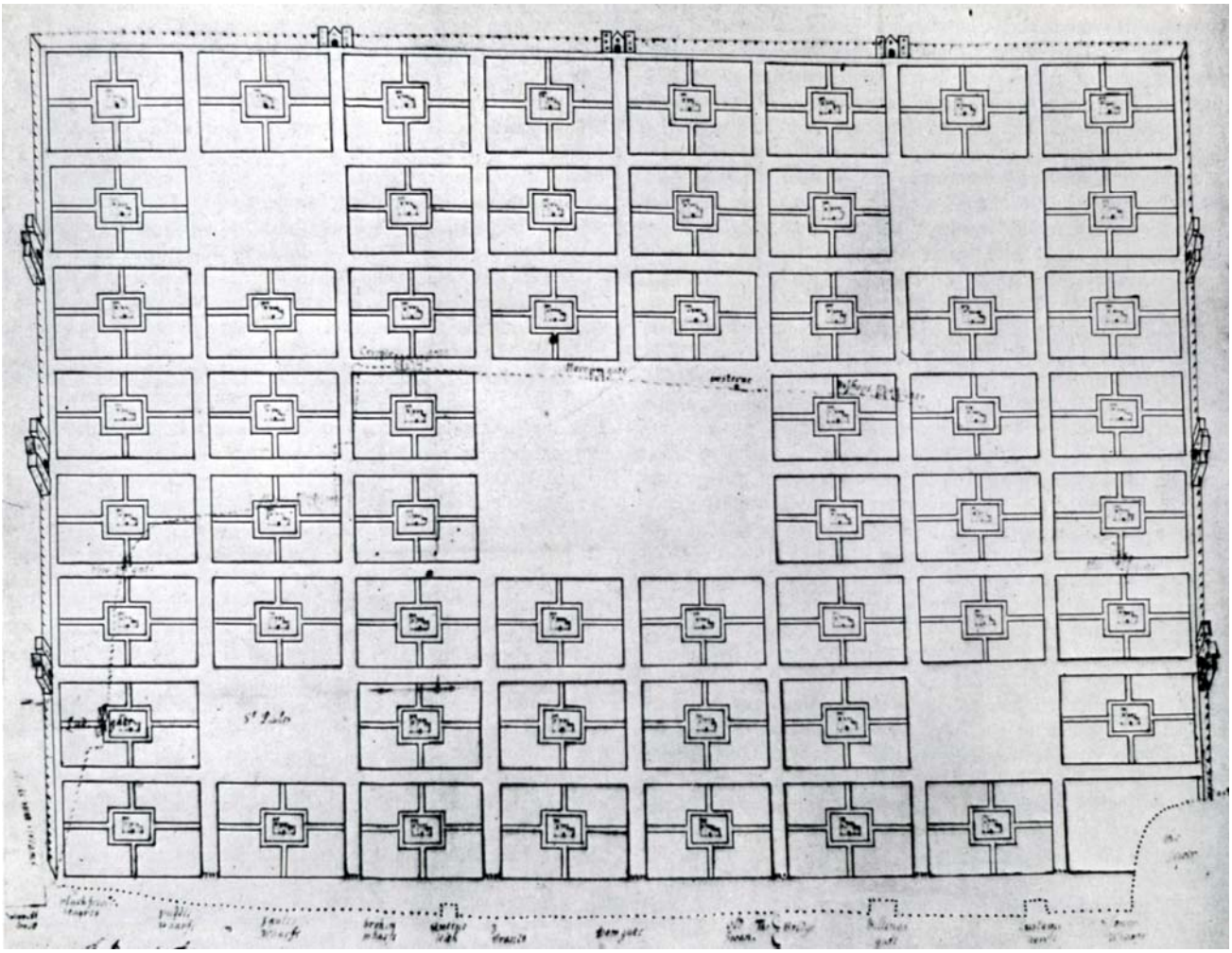


Figure 1.2: *Richard Newcourt's 1666 plan for the rebuilding of London following the Great Fire. Note the similarity to Holme's plan in the layout of the major open spaces in each geographical quadrant of the city and at the city center (Towne Planning Review, Vol. 18, No. 3 (1939)).*

The Moorfields was originally a great marsh that lay beyond the old wall to the north of London. Gradually, it was reclaimed by ditching and draining to become a common, "a subject of contest between the Londoners and the people of the neighboring towns, who strove constantly to enclose it for gardens and pasture."[8]

The Great Fire of London (1666), during which citizens of London sought refuge in the Moorfields, may have influenced Penn when he designed Philadelphia. By setting aside the four smaller squares in Philadelphia for common use, Penn established Philadelphia's first public parks.

Unlike Philadelphia's other squares, Washington Square is the only one with a formal patent, issued from William Penn to the mayor and people of the City of Philadelphia on January 29, 1706. "The purpose of the grant was declared to be 'for a common burying-place for the service of the city of Philadelphia for interring the bodies of all manner of deceased persons whatsoever, whom there shall be occasion to lay therein.' For the improvement of the burying-place, full and free liberty was given to the mayor and corporation 'to enclose, fence, plant, build on, or by any ways or means whatsoever that will improve the aforesaid piece of ground.'"[9]

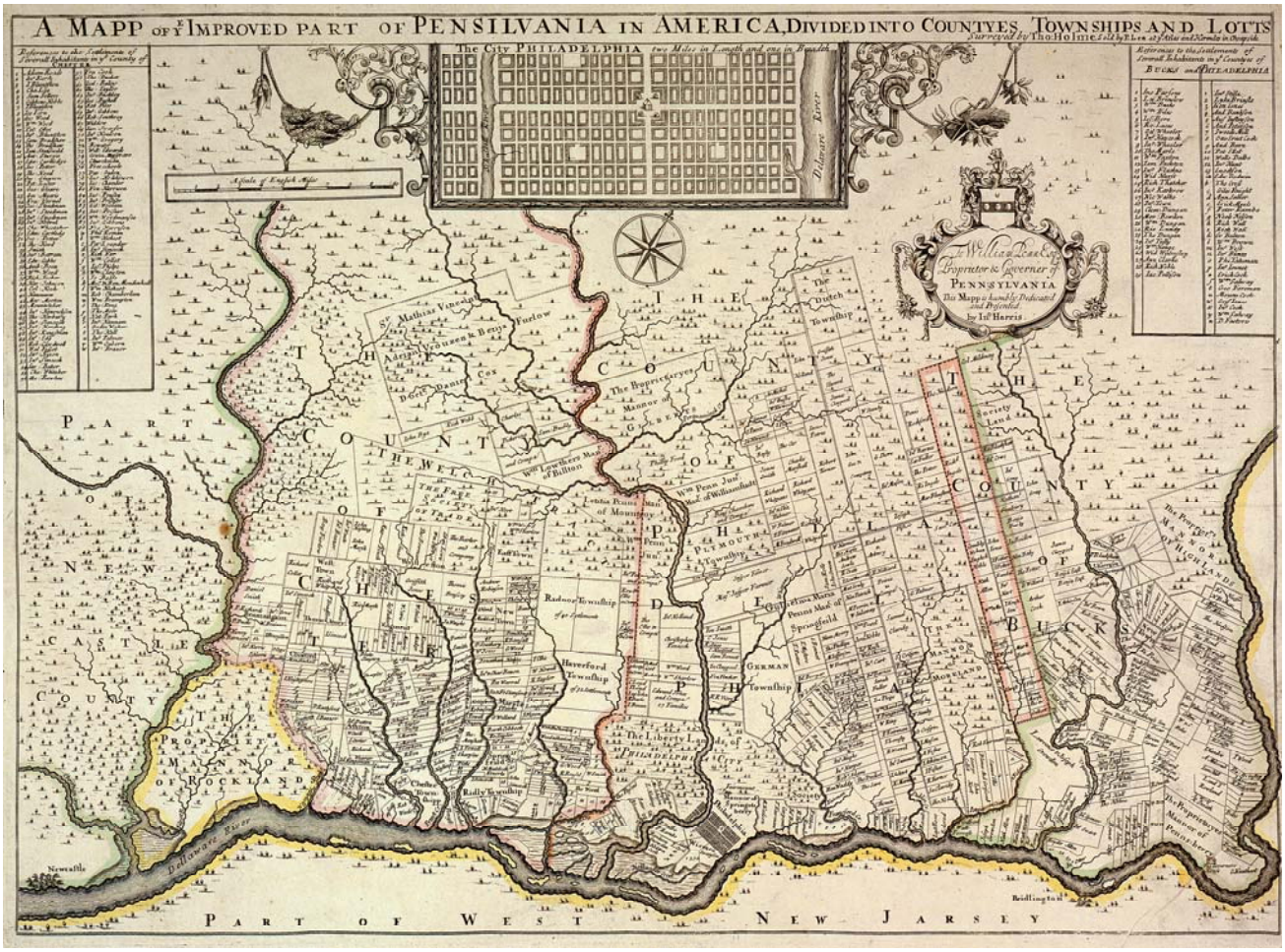


Figure 1.3: *Thomas Holme's 1687 Plan for Pennsylvania, "A Mapp of Ye Improved Part of Pennsylvania in America Divided Into Counties, Townships and Lots," including Philadelphia at bottom center. This plan shows the relationship of the city grid to the adjacent rivers and surrounding tracts of land, providing an illustration of the scale of development at the urban center relative to the improved portion of the province (The Historical Society of Pennsylvania, by Thomas Holme).*

Physically, the Southeast and Southwest Squares are different from Philadelphia's two other squares, each in different quadrants of the city. The north/south block bordering Southeast Square has a larger span than any other city block shown on the 1683 Holme plan. The extra width of this block was due to the presence of Dock Creek, which required that Spruce Street be laid-out further south of the square to ensure clear passage of the creek (as shown in Figures 1.1 and 1.6).[10] As a result, the southeast and southwest squares are bordered on only two sides by major through streets, while the John Lukens' 1766 *Survey Book* provides the first survey evidence of the topography near Southeast Square. He noted that the grade change along Sixth Street, "from ye South Side of Walnut street to the bottom of the Hallow [*sic*] between Walnut & Spruce Street (Distance 140 feet) Desent [*sic*] 5 feet 2 Inches."[11] In their *History of Philadelphia*, Scharf and Westcott also noted a hollow, where a stream flowed from a pond located about where the First Presbyterian Church was later constructed (at the southeast corner of Seventh Street and what is now South Washington Square) and converged with a second stream, which flowed into the square from

beyond Arch Street, on the square to the west of Sixth Street. The combined stream, then known as Beek's Hollow,[12] continued "eastward to Fifth Street, and half-way to Fourth Street, where it turned north, then east to about Hudson Street, where it emptied into the northwestern branch of Dock Creek."[13] This description of the creek's course is confirmed in John F. Watson's *Annals of Philadelphia and Pennsylvania*.[14] Watson also wrote of Southeast Square, "those who remembered the place long before my recollections knew it when the whole place was surrounded by a privet-hedge, where boys used to go and cut bow-sticks, for shooting of arrows."[15]

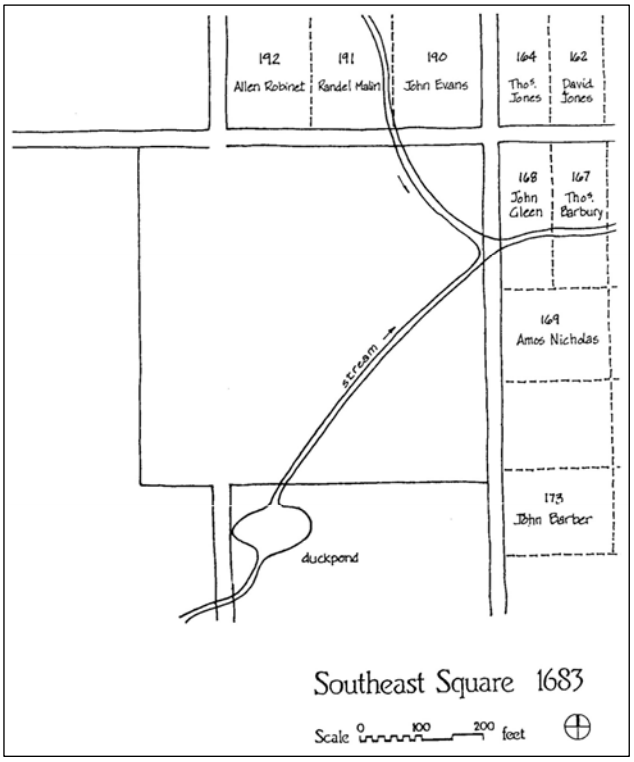


Figure 1.4: *Denise Rabzak's period diagram for Washington Square, 1683, showing the two creeks that converged on the square (Washington Square in Historic Society Hill: A Site Plan Chronology, 1683-1984).*

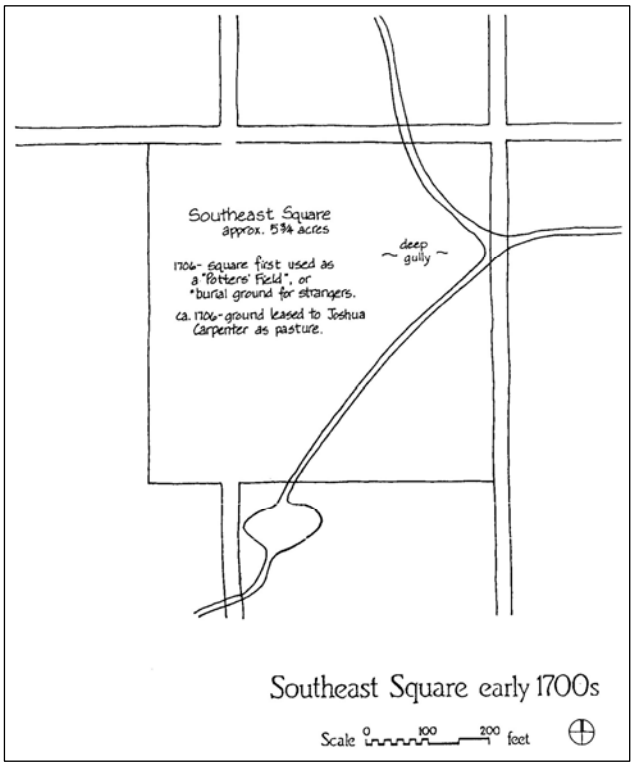


Figure 1.5: *Denise Rabzak's period diagram for Washington Square, early 1700s, showing initial use of the field for pasture (Washington Square in Historic Society Hill: A Site Plan Chronology, 1683-1984).*

Timothy Matlack remembered the pond in the square where he would go to shoot wild ducks between 1745 and 1750; Hayfield Conyngham Esq. also recalled catching fish of six inches in length in the stream; and another aged person remembered walking up the brook, catching crayfish in the stream.[16] Benjamin Kite recalled that around 1760 the southeast quarter of the square was "very unsightly, filled with many cartloads of brick bats, stones and rubbish."[17]

The Loganian Library was constructed in 1745 at the northwest corner of Sixth and Walnut Streets, facing the State House Yard (now Independence Square). This building, designed and constructed by amateur architect James Logan, President of the Provincial Council, housed his books until they were moved to the new Library Company building on Fifth Street in 1793. During the subsequent Yellow Fever epidemic,

the building was rented from John Swanwick to the Orphan Committee and housed children orphaned by the epidemic. At the time, the addition of a large room substantially increased the size of the building.[18]

In the 1760s, Walnut Street was also bordered by numerous brick houses between Fifth and Sixth Street, when the Assembly began purchasing the block for the expansion of the State House Yard. By 1752, Samuel Rhoads owned two of these brick houses on the corner of Sixth and Walnut Streets.[19] In 1773, the Walnut Street Gaol was constructed at the southeast corner of Sixth and Walnut Streets to alleviate overcrowding in the existing city jail. The Walnut Street Gaol was designed by noted Philadelphia architect Robert Smith (1722-1777), whose previous work included Carpenter's Hall (1770). As Watson reported in his *Annals*, "there used to be two or three small frame houses on the north-east corner [of the square], near the jail, afterwards used by the commissioners as stables for the horses of the dirt carts. Up Walnut street, nigh the corner of Eighth street, was a row of red painted frame houses; in 1784-5 they were the nearest houses to Schuylkill."[20]

An 1875 map showing Philadelphia as it existed in 1796 shows Seventh Street extending through Southeast Square, is based on an earlier map by French engineer, P.C. Varle. The 1875 map titled "Philadelphia 100 Years Ago," shows the square bordered by freestanding structures on the south and west sides, as compared to the blocks further east, which are shown as solid, built blocks (Figure 1.6). As late as 1794, the heavily built portion of the city scarcely reached Southeast Square. A detailed *Plan of the City and Suburbs of Philadelphia* drawn by A.P. Folie in 1794 shows the southwest corner of the square bordered by un-built lots.[21]

Pasture & Market Use

Shortly after the Patent for Southeast Square was issued by William Penn in 1706, "Joshua Carpenter, a Common Councilman, made an application for the ground. It might be useful as a place of pasture for cattle, and as the burials were not likely to be many for some years ensuing, the grass crop could be available in nearly the whole of the inclosure [*sic*]."[22] On March 8, 1706, Councils ordered that a twenty-one year lease should be granted to Carpenter in exchange for a nominal rent of one shilling per annum, provided he agreed to enclose the square with a fence at his own expense. The lease to Carpenter was signed on March 30, 1708.[23] While Carpenter's application included reference to fencing the square, records indicate that this did not occur until the 1760s.

Joshua Carpenter was a prominent Philadelphia citizen and the first Alderman nominated by Penn in the Charter of the City of Philadelphia. Carpenter, however, declined to serve. He was again elected to the same office in 1704 and again declined. In October 1705, he was chosen as a Common Councilman and served until his death in July 1722. In addition, Carpenter was a Justice of the Peace and a Representative of Philadelphia City and County in the Assembly of Pennsylvania. He adhered to the Established Church and was one of the earliest vestrymen of Christ Church in Philadelphia.[24]

Joshua Carpenter was buried on July 24, 1722 in the center of Southeast Square. His wife, Elizabeth, was buried alongside her husband on October 30, 1729.[25] There is a tradition that the center of Southeast Square was selected under the circumstance that a daughter of Joshua Carpenter committed suicide and was therefore excluded from burial in the church grounds.[26] In Watson's *Annals* (1857 edition), the family plot at the center of the square is described as a brick wall-enclosed space about forty feet square with an apple tree at the center, under which Joshua Carpenter was buried.[27]

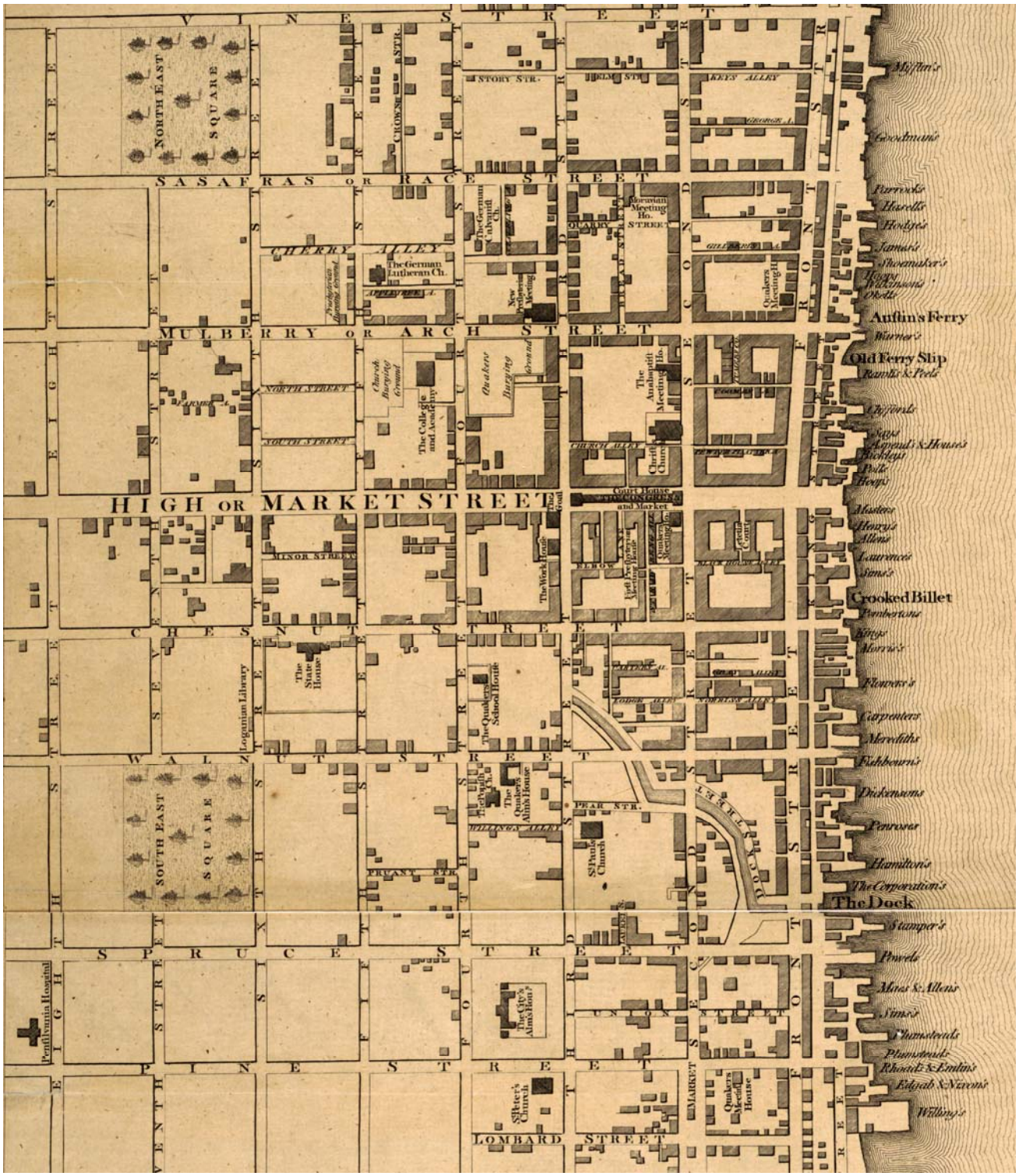


Figure 1.6: *Detail of 1776 "Plan of the City of Philadelphia, the Capital of Pennsylvania from an actual survey by Benjamin Eastburn, Surveyor General." Note that in 1776, the streets had yet to be laid on the southern and western sides of the square and that the developed portion of the city scarcely skirted the square (The Map Collection, Free Library of Philadelphia).*

(The description of the enclosure differs in the 1879 edition of Watson's *Annals*, revised by Willis P. Hazard, where it is described as twenty or thirty feet square.)

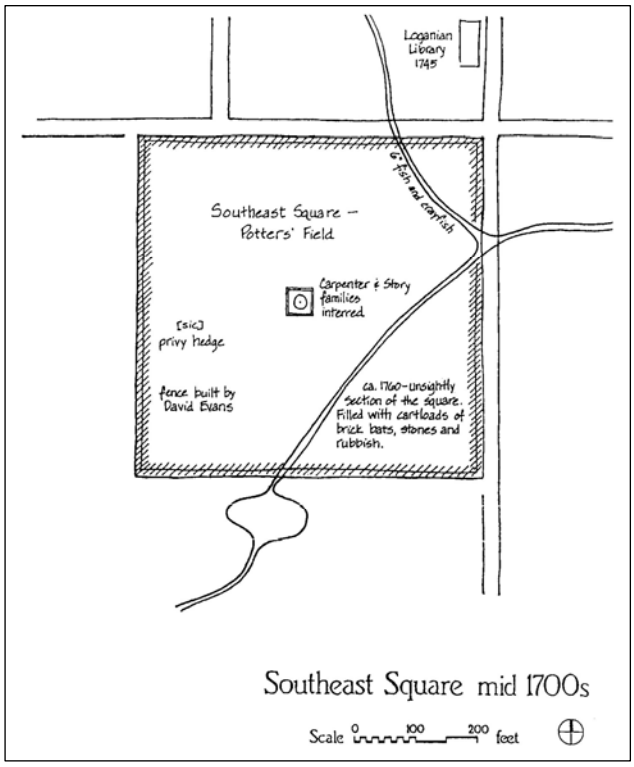


Figure 1.7: *Denise Rabzak's period diagram for Washington Square, mid-1700s, showing the square fenced with the Carpenter family burial plot at its center (Washington Square in Historic Society Hill: A Site Plan Chronology, 1683-1984).*

Upon Carpenter's death in 1722, it was alleged that his heirs had not complied with the condition of the lease and kept the ground in good order. A committee was appointed to investigate, but no record of their conclusion has been located.[28]

Subsequent leases to the grounds were issued to Jacob Shoemaker from 1730 to 1765 on the condition that he "oblige himself to keep the fences in good repair and to deliver it up in good order at the end of the term, and bury the bodies at least four feet and an half deep in the ground."[29] Upon the expiration of Shoemaker's lease, notices appeared in *The Pennsylvania Gazette*, each of which documented the size of the square at five and three quarters acres.[30] Jasper Carpenter was the last lessee of the grounds from 1766 to 1780 from the Corporation of the City of Philadelphia, as it ceased to exist at the expiration of his lease.[31] David Evans, elected to the Carpenter's Company in 1769, constructed a fence around the square for Carpenter.[32] George Vaux later noted in a letter in the first quarter of the nineteenth century:

> It is within the recollections of hundreds of persons, that about twenty years ago, this square was inclosed [*sic*] by one entire fence without any opening at Seventh Street. At an earlier period it was surrounded by a privy [*sic*] hedge – say Samuel Coate, Nathan Jones & David Evans. David Evans fenced the square many years ago entire under cont. with the corporation. This it is known was the case as late as 1795 on the 4th of May in which year a resolution passed the city council directing the commissioners to open the street, who opened it accordingly.[33]

In 1766, *The Pennsylvania Gazette* again advertised, "The public are hereby informed, that the Burial Ground of this City, known by the Name of the Potters Field, and which was heretofore under the care of Mr. Jacob Shoemaker, sen., is now under the care of the Subscriber, living in Spruce street, between Fourth and Fifth streets, where all Sorts of Joyners Work is done, and a Hearse and all Things necessary for Funerals provided by JOSEPH CARPENTER."[34] City Treasurer's records from 1809 to 1812 and 1814 document annual payments for rent of the east and west portions of the Southeast Square, separately in many instances, likely for continued use as pasture land.[35]

Potter's Field

Given the proximity of Southeast Square to the developed portion of the city, which spread along the western bank of the Delaware River, the square was both close enough and far enough to be suitable for use as a burial ground. The minutes of the Common Council from September 21, 1705 record the first resolution to acquire a public burial ground for the City of Philadelphia, "'it is ordered that the mayor (Griffith Jones), recorder (David Lloyd), and Alderman Wilcox (taking along with them such p'sons of the perspective religious p'suasions of this city as they shall think p. p.), apply themselves to the Com'rs of Property for a publick [*sic*] piece of ground in this city for a burying-place for strangers dying in this city, and report their doing therein to the next meeting.'"[36] As subsequently granted by William Penn's 1706 patent, from 1706 to 1794, Southeast Square was used as a potter's field, or a burial place for strangers.[37]

Almost as soon as the property was under the control of the City Corporation, interments were made of the poor and African Americans, both enslaved and free.[38] This was soon followed by additional burials including suicide victims, individuals unaffiliated with a church, prisoners of war from the Walnut Street Gaol, and victims of the 1793 Yellow Fever epidemic. As *The Pennsylvania Gazette* reported, John Bullock, who was executed after being convicted of murdering his wife, was buried in 1741 in the Stranger's Burying Ground at Southeast Square.[39] Scharf and Westcott speculated that before 1760 the southeast section of the square was used for the burial of Catholics.[40]

In late 1763, Christian Native Americans who were rounded up on the frontier by British officers with the support of the colonies were housed in barracks in Philadelphia before they were to be sent safely to New York. The Native Americans were brought to the city on account dangers posed by the Paxton Boys, a vigilante group who targeted Native Americans. Over the winter, however, "the poor Indians while in the Barracks were attacked by the small-pox, and more than fifty were buried in a corner of the Potter's Field."[41] It appears that sixty-six Native Americans died in Philadelphia in total, who were all buried in potter's field, with the exception of one, who was buried in the Monravian Church burying ground on Vine Street between Seventh and Eighth Streets.[42]

During the Revolutionary War, the Walnut Street Goal at the corner of Sixth and Walnut Streets housed prisoners of war. Conditions in the early prison were brutal; "during the severe winter of 1777-78, large numbers of the prisoners under Loring and Cunningham died of cold and hunger combined. The windows of the jail had been broken and were not restored, nor were fires permitted or covering given out. Every day the victims of this infamous barbarity perished, and were dragged to the trenches in the Potter's Field near by [*sic*]."[43] Also during the Revolution, nearby Independence Hall, completed in 1753 as the Pennsylvania State House for the Province of Pennsylvania, was used as a hospital. Some of the soldiers interred in Washington Square were patients imprisoned at Independence Hall. During the Revolution, John Adams wrote to Abigail Adams:

> I have spent an Hour, this Morning, in the Congregation of the dead. I took a Walk into the Potter's Field, a burying Ground between the new stone Prison, and the Hospital, and I never in my whole Life was affected with so much Melancholy. The Graves of the soldiers, who have been buryed [*sic*], in this Ground, from the Hospital and bettering House, during the Course of the last Summer, Fall, and Winter, dead of the small Pox, and Camp Diseases, are enough to make the Heart of sonnet to melt away. The Sexton told me, that upwards of two Thousand soldiers had been buried there, and by the Appearance, of the

> Graves, and Trenches, it is most probable to me, he speaks within Bounds.[44]

Another letter from Deborah Norris to Sally Wister documents the scene at the Potter's Field as soldiers who died in the Pennsylvania Hospital from a recent military campaign in New Jersey were buried in the Potter's Field: "Oh! It is too dreadful a scene to Attempt to describe. The poor Creatures die without number. Large pits are dug in the negroes burying ground, – and forty or fifty coffins are put in the same hole. This is really true I do not exaggerate."[45] According to Scharf and Westcott, pits of twenty by thirty feet were dug along Walnut Street near Seventh Street and were stacked with coffins. A second set of trenches were dug along the southern border of the square for the burial of American and British soldiers alike.[46]

In 1765, Dr. William Shippen, Professor of Anatomy and Surgery and Philadelphia resident at Prune and Fourth Streets, used bodies from the Potter's Field in his Anatomical Lectures, presented at the College of Philadelphia. "The Bodies he dissected were either Persons who had willfully murdered themselves, or were publickly [*sic*] executed, except now and then one from the Potters Field, whose Death was owing to some particular Disease; and that he never had one Body from the Church, or any other private Burial Place."[47] However, the African American community felt targeted by Shippen's selection of subjects from Potter's Field. During the preceding decades, the community had regularly gathered in the square, and as a result developed a tradition of watching over the burial ground.

African American Gatherings

The proximity of Southeast Square to the developed portion of the city also made it a popular gathering place for both free and enslaved blacks during the eighteenth century. Scharf and Westcott noted in their *History of Philadelphia*, "In times of festival it has been said that the slave blacks of both sexes used to go to the square in considerable numbers, and amuse themselves by dancing, singing, and speaking."[48] In 1738, an ordinance was circulating in the Councils "for the better regulation of the more Effectual suppressing Tumultuous meetings and other disorderly doings of the Negroes, Mullatos [*sic*], and Indian servts, and slaves within the City and Liberties thereof."[49] Complaints were again issued in 1741 against "many disorderly persons that meet every ev'g. about the Court house of this city, and great numbers of Negroes and others sit there with milk pails, and other things, late at night, and many disorders are there committed against the peace."[50] Officially, the board responded by ordering that all depart within a half an hour after sunset.[51] However, it is likely that these complaints and subsequent orders pushed the free and enslaved blacks from the center of the city to the area near Southeast Square. Watson noted in his *Annals*:

> It was the custom for the slave blacks, at the time of fairs and other great holidays, to go there [to the Potter's Field] to the number of one thousand, of both sexes, and hold their dances, dancing after the manner of their several nations in Africa, and speaking and singing in their native dialects, thus cheerily amusing themselves over the sleeping dust below! An aged lady, Mrs. H.S., has told me she has often seen the Guinea negroes, in the days of her youth, going to the graves of their friends early in the morning, and there leaving them victuals and rum![52]

According to Dr. Charles Blockson in his book *Philadelphia 1639-2000*, the term "Congo Square" was used to refer to Southeast Square during the colonial period.[53] The name Congo Square is also used for a portion of Louis Armstrong Park in New Orleans, Louisiana, where free and enslaved African Americans historically gathered on Sundays to relax. However, the term Congo Square in reference to Washington Square is not recorded in writing; rather, it is possible that it was passed through the oral tradition of the African American community in Philadelphia.

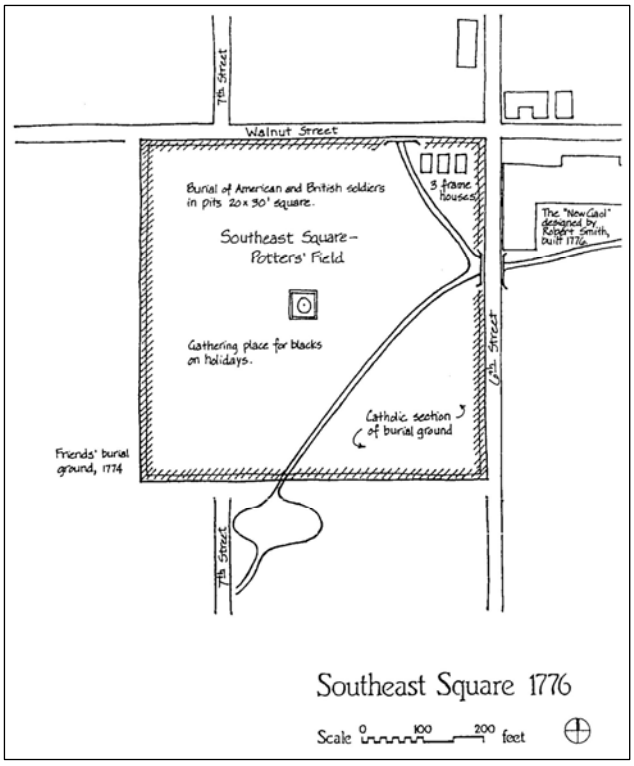


Figure 1.8: *Denise Rabzak's period diagram for Washington Square, 1776, showing a fence enclosing the square and three frame houses referenced by Watson across Sixth Street from the Walnut St. Goal (Washington Square in Historic Society Hill: A Site Plan Chronology, 1683-1984).*

Summary, 1682-1777

The period between 1682 and 1777 consisted of the establishment of Southeast Square as a part of the urban fabric of Philadelphia, based on Thomas Holme's plan for the city authorized by William Penn in 1682. During the colonial period, the landscape of the square consisted of a duck pond with two small streams running through the southeast and northeast corners of the site, converging on the eastern side of the square. The shape of the square and its primary bordering streets were established by 1683 and sometime around the 1760s, the square, then under lease by Jasper Carpenter, was fenced by David Evans. A portion of the square was leased for pasture from 1706 to as late as 1814.

By the first quarter of the 1700s, the Carpenter and Story families created a small brick wall-enclosed plot at the center of the square for family burials. Before Philadelphia became the young nation's capitol city in 1790, the landscape of Washington Square was used for a wide variety of purposes, including as a potter's field for burials of free and enslaved blacks, victims of suicide, prisoners of war from the Walnut Street Gaol, and Revolutionary War Soldiers imprisoned at Independence Hall. Prior to the Revolution, the square was also a prominent location for African American gatherings and celebrations, as documented in Watson's *Annals*. African Americans guarded their burials in the Potter's Field against theft for use in medical school.

Endnotes

[1] John W. Reps. *Town Planning in Frontier America*. Princeton, NJ: Princeton University Press, 1969, p. 206.

[2] Ibid., p. 209.

[3] Ibid., p. 215.

[4] Ibid., p. 210.

[5] Caroll Frey. *Philadelphia's Washington Square*. Philadelphia, PA: The Penn Mutual Life Insurance Company, 1952, p. 1.

[6] Sylvia Doughty Fries. *The Urban Idea in Colonial America.* Philadelphia, PA: Temple University Press, 1977, p. 97.

[7] *A Short Advertisement upon the Situation and Extent of the City of Philadelphia and the Ensuing Plat-form thereof, by the Surveyor-General*, London, 1683, as quoted in Reps. *Town Planning,* pp. 211-212.

[8] Henry Wharton. *Washington Square: Opinion as to the Legality of its Use for Public Purposes*. Philadelphia, 1870, p. 3.

[9] J. Thomas Scharf and Thompson Westcott. *History of Philadelphia, 1609-1884*, Vol. III. Philadelphia, PA: L.H. Everts & Co., 1884, p. 2355.

[10] As Scharf and Westcott reported in their early history of the city, "the actual reason of the width is that Dock Creek (although this [the 1683 Holme] plan does not show it) entered the Delaware north of Spruce Street, and just where any street laid immediately adjacent to the southern boundary of Southeast Square would have come out. To avoid this, Spruce Street was placed far enough south of the square to secure a clear passage. The distance from Walnut Street to Spruce Street is seven hundred seventy feet. The distance from Chestnut Street to Walnut Street is four hundred and seventy feet." Ibid., p. 1841.

[11] John Lukens. *Survey Book.* July 1776. Lukens Papers, 1760-1788.

[12] John F. Watson. *Watson's Annals of Philadelphia and Pennsylvania*, Vol. I, Philadelphia, PA: Elijah Thomas, 1857, p. 407.

[13] Scharf and Westcott. *History of Philadelphia,* Vol. III, p. 2356.

[14] John F. Watson. *Watson's Annals of Philadelphia and Pennsylvania*, Philadelphia, PA: E.L. Carey & A. Heart, 1830, p. 351.

[15] Watson. *Watson's Annals*, Vol. I, pp. 405-7.

[16] Ibid., pp. 405-7.

[17] Benjamin Kite. "Recollections of Philadelphia Nearly Seventy Years Ago," *The Pennsylvania Magazine of History and Biography*, 19 (1895), p. 264, as quoted in Denise R. Rabzak for the National Park Service, Independence National Historical Park. "Washington Square: A Site Plan Chronology, 1683-1984," May 1987, p. 3.

[18] Francis James Dallett. *An Architectural View of Washington Square*. Frome, England: Butler & Tanner, 1968, p. 8, from John H. Powell. *Bring Out Your Dead*. Philadelphia, PA, 1949. A sketch of the Loganian Library is in the Wallace Collection, Historical Society of Pennsylvania.

[19] PA Archives, Ser. VIII, VI, 5484; PA Archives, Ser. VIII, VII, 6047, 6268, as cited in Anna Coxe Toogood, Historian, National Park Service, Independence National Historical Park. "Cultural Landscape Report, Independence Square, Volume One, Historical Narrative," 2004, p. 23.

[20] Watson. *Watson's Annals*, Vol. I, pp. 405-7.

[21] Reproduced in John W. Reps. *The Making of Urban America: A History of City Planning in the United States*. Princeton, NJ: Princeton University Press, 1965, Figure 101, p. 170.

[22] Scharf and Westcott. *History of Philadelphia,* Vol. III, p. 2355.

[23] Ibid., p. 2356.

[24] Gregory B. Keen. "The Descendants of Jöran Kyn, the Founder of Upland," *Pennsylvania Magazine of History*, Vol. 3 –31 (1882), p. 456.

[25] Edward Carpenter and General Louis Henry Carpenter. *Samuel Carpenter and His Descendents*. Philadelphia, PA: J.B. Lippincott Company, 1912, p. 36.

[26] Ibid., p. 36.

[27] Watson. *Watson's Annals,* Vol. I, pp. 405-7.

[28] Scharf and Westcott. *History of Philadelphia,* Vol. III, p. 2356.

[29] Samuel Hazard, ed. *Pennsylvania Archives. Selected and Arranged from Original Documents in the Office of the Secretary of the Commonwealth*, Vol. XII, Philadelphia, PA: Joseph Severns & Co., 1856, p. 471.

[30] *The Pennsylvania Gazette*. 13 April 1753, p. 3, col. 2. and "Commons," *The Pennsylvania Gazette*. 6 April 1758, p. 3, col. 2.

[31] Scharf and Westcott. *History of Philadelphia,* Vol. III p. 2356.

[32] Dallett. *An Architectural View of Washington Square*, p. 21, from George Vaux's letters.

[33] George Vaux to Mr. Bronson, n.d. (circa 1816-1824).

[34] *The Pennsylvania Gazette*, 8 May 1766, as quoted in Wendy A. Woloson, Ph.D. for the History Branch, Cultural Resources Management Division, Independence National Historical Park, National Park Service, U.S. Department of the Interior. "Washington Square: Bibliography of Source Material," March 2000, p. 66.

[35] City Treasurer Cash Accounts, 7 August 1807-31 December 1810, Archives Division, City of Philadelphia, 18 February 1809 (east part to Lambert Smyth) and 30 November 1809 (west part to John Meany). City Treasurer City Property Receipt Book, 3 October 1810-31 March 1815, Archives Division, City of Philadelphia, 31 December 1810 (west part of John Meany), 1 January 1811 (to David Solter Jr.), and 9 December 1812 (to George Harrison, Esq.). City Treasurer City Property Receipt Book, 3 October 1810-31 March 1875, Archives Division, City of Philadelphia, 6 May 1814 (west part to Daniel Fiss) and 10 May 1814 (east part to Lambert Smith).

[36] Common Council minutes, 21 September 1705, as quoted in Scharf and Westcott. *History of Philadelphia,* Vol. III., p. 2355.

[37] "History of the City's Oldest House" *Evening Bulletin*, 25 February 1949. Free Library of Philadelphia, Castner Scrapbooks on microfilm. Reel 2, vol. 18, p. 33. And Coxey Toogood, NPS History Division, to Susan Kraft, NPS District I, regarding Potters Field in the eighteenth century, 23 April 1990.

[38] Scharf and Westcott. *History of Philadelphia,* Vol. III. p. 2356.

[39] *The Pennsylvania Gazette*, 12 November 1741, as referenced in Woloson. "Bibliography," p. 66.

[40] J. Thomas Scharf and Thompson Westcott. *History of Philadelphia, 1609-1884*, Vol. II, Philadelphia, PA: L.H. Everts & Co., 1884, p. 1369.

[41] Ellis Paxson Oberholtzer, Ph.D. *Philadelphia: A History of the City and its People, a Record of 225 Years*, Vol. I. Philadelphia, PA: S.J. Clarke Publishing Company, 1912.

[42] Scharf and Westcott. *History of Philadelphia,* Vol. II. p. 1327.

[43] J. Thomas Scharf and Thompson Westcott. *History of Philadelphia, 1609-1884*, Vol. I, Philadelphia, PA: L.H. Everts & Co., 1884, p. 372.

[44] L.H. Butterfield, editor and Wendell D. Garrett and Marjorie E. Sprague, assistant editors. *Adams Family Correspondence*, Vol. 2, June 1776-March 1778. Cambridge, MA: The Belknap Press of Harvard University Press, 1963, pp. 209-210.

[45] Albert Cook Myers, ed. *Sally Wister's Journal*. Philadelphia, PA: Ferris & Leach, 1902, p. 190.

[46] Scharf and Westcott. *History of Philadelphia,* Vol. III. p. 2356.

[47] *The Pennsylvania Gazette*, 26 September 1765.

[48] Scharf and Westcott. *History of Philadelphia,* Vol. III. p. 2356.

[49] Watson. *Watson's Annals*, Vol. I, p. 62.

[50] Ibid, p. 62.

[51] Ibid.

[52] Ibid., pp. 405-7.

[53] Charles L. Blockson. *Philadelphia, 1639-2000*. Charleston, SC: Arcadia Publishing, 2000, p. 9.

Capital City & Washington Square Improvements, 1777-1815

The Continental Congress (and later the Congress of the Confederation) remained in Philadelphia through the close of the Revolution until 1783, when Congress relocated to Princeton, NJ, Annapolis, MD, and Trenton, NJ before finally establishing the seat of government in New York City in 1785. They relocated again in 1790, back to Philadelphia. Philadelphia then served as the nation's capital from 1790 to 1800 while Washington, D.C. was under construction. By 1800, Philadelphia was the most populous city in the United States. The shape of the populated area was expanding from a crescent along the Delaware into the open country beyond Seventh Street toward Centre Square (Figure 1.8). Accordingly, around the turn of the century, the City of Philadelphia initiated many public improvements and a new age of civic engagement began for Southeast Square, with city government and citizens both expressing increased interest in the square and its adjacent streets.

Little early evidence of trees near the square exists, aside from references to the apple tree planted in association with the Carpenter family burial plot. The Philadelphia Contributorship, convinced that trees in the city constituted a fire hazard, refused to insure houses located near trees. Despite public opposition, the Assembly affirmed the company's policy on April 15, 1782 when it ordered the removal of all trees in streets, lanes, and alleys because they obstructed passage, destroyed watercourses, and spread fire. The act was repealed just five months later after petitioners protested that trees "conduce much to the health of the inhabitants, and are in other respects of great public utility."[1] Although the act was repealed, the Contributorship adhered to its policy, and thus encouraged the establishment of a competitor, Mutual Assurance Company, who would insure houses near trees. Consequentially, the company became known as Green Tree.[2]

After the Revolution, the City resumed efforts to channelize streams. In his diary, Jacob Hiltzheimer recorded a meeting with the Street Commission in April 1786:

> In the afternoon met the Magistrates with my brethren of the Street Commission; then went and viewed the sewer, back of the Workhouse; from thence went to Cedar Street; and from thence went to J. McClutcheon's tavern. There we resolved that the Common sewer, above mentioned, be built this summer, from the wall of the Workhouse, down to Fifth Street, and about 100 feet east of said street, to a house-wall; and likewise agreed that Sixth Street, from Market Street southward to Carpenter Street, be paved, and Dock Street, between Third and Walnut Streets, be paved; provided the arch under said street is sufficient and in good repair to receive all water conveyed to said arch.[3]

From Hiltzheimer's diary entry, it is evident that the sewer under Sixth Street, which received water from the Dock Creek tributaries through Southeast Square, was in place by 1786, with plans for its extension to Fifth Street under the Walnut Street Gaol over the summer. Minutes of the Common Council meeting ten years later indicate that the city anticipated expansion of the sewer in the opposite direction, in the coming years, under the square, "From the local situation of this Square, it is expected in some future day a common sewer will be continued through wide draft."[4]

In 1792, citizens petitioned the mayor for tree planting in the five public squares, which they cited as "public nuisances" out of neglect. They urged tree planting to improve the general health of the City, and wrote to the mayor, "it is an established fact that trees and vegetation" contribute to "the increased salubrity of air."[5]

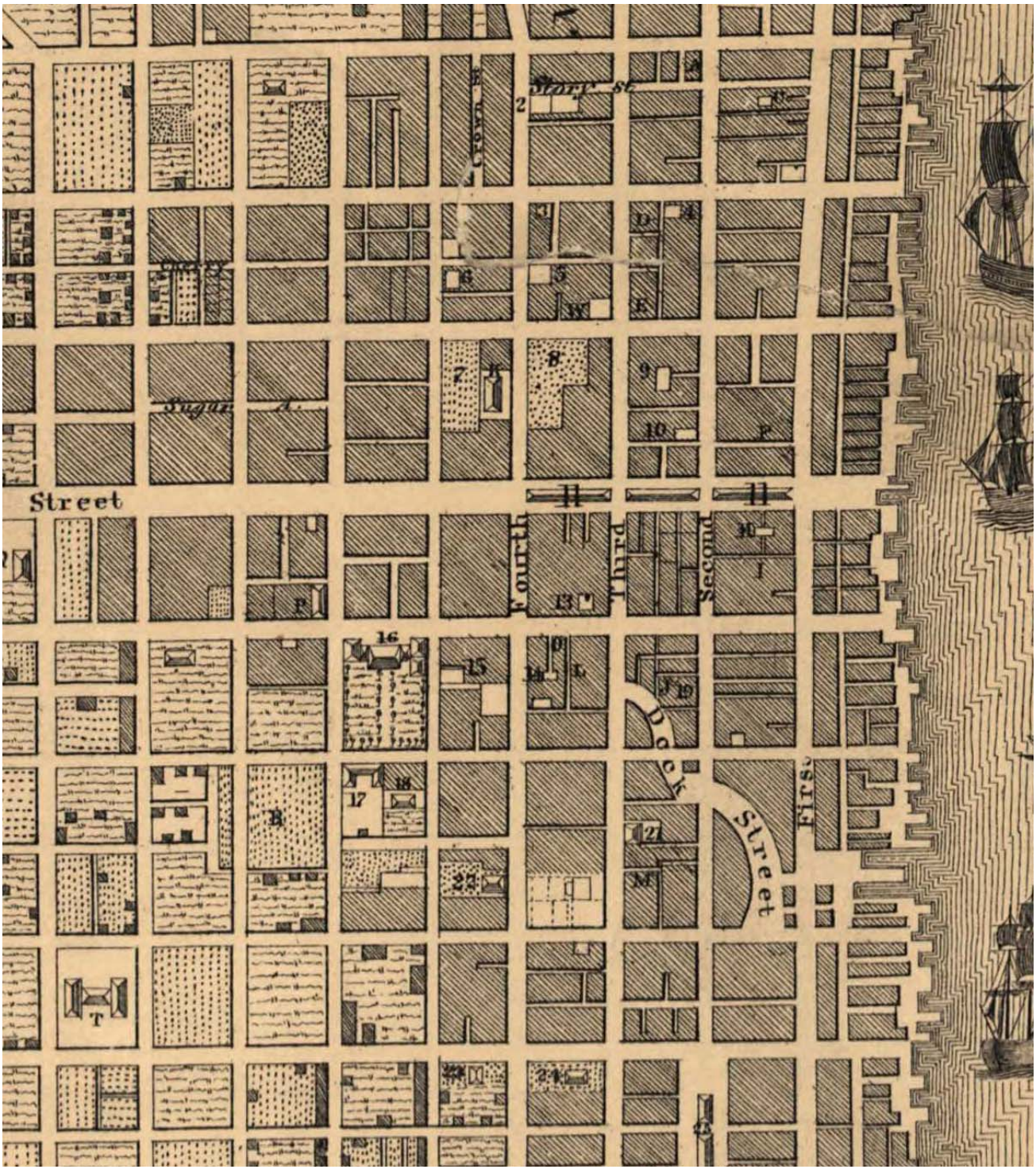


Figure 1.9: *Detail of a map showing Philadelphia as it existed in 1796 with Seventh Street extending through Southeast Square (labeled B). Note the free-standing structures on the south and west sides of the square and the Walnut Street Gaol to the south of the State House Yard. The 1875 map titled "Philadelphia 100 Years Ago" was reproduced from the 1796 original by P.C. Varle, French Engineer for W.E. Lyndall for H.J. Toudy & Co. (Library of Congress).*

This request [for tree planting] reflects an increased interest in the square. On July 14, 1793 Jacob Hiltzheimer recorded in his diary use of Southeast Square, "Owing to the rain on the 4th inst., the fireworks Civic Advocacy for Public Improvements were ex-hibited tonight at the Potter's Field."[6]

African Americans Continue to Protect Potter's Field

In 1782, a group of six African American petitioners, including the now well-known James Oronoko Dexter, activist and former slave who bought his freedom, as well as John Black, Samuel Saville, Cuff Douglass, Aram Prymus, and William Gray, petitioned the city to install a fence around "Potter's Square," Philadelphia's black burial ground, as it was called. However, the petitioners were unsuccessful.[7] Despite this, the African American community continued to be active in protecting Potter's Field, and these efforts were successful in keeping Dr. William Shippen from exhuming additional bodies for dissection, as he had done in 1765. In a 1787 letter to his son, Shippen wrote:

> We have and are still at a great loss for want of a Subject for dissection and demonstration, few dies [*sic*] and the negroes have determined to watch all who are buried in the Potters field – the young men have been twice driven off by arms, once fired on and two wounded, with small shot, on Saturday night with the assistance of six invalids with muskets they beat off the negroes and obtained a corps [*sic*]. I lodged it in the Theater. The resolute impertinent blacks broke open ye. house stole ye subject and reburied it.[8]

Upon subsequently hiding a second subject for dissection in his hay loft, Shippen's house was mobbed by "3 or 400 sailors, negroes, &c."[9] In the letter, Shippen also indicates that the Potter's Field is patrolled nightly by armed blacks.

In 1787, Richard Allen, a minister associated with St. George's Methodist Church on Fourth Street, joined with Absalom Jones to establish the Free African Society, a secular, benevolent organization founded to assist and protect free and enslaved Africans. The society appealed to the white community for support, but faced resistance. In May 1790, the Free African Society attempted to lease the Potter's Field to officially turn it into a black cemetery under the Society's control, but the request was denied by the City.[10] By 1792, the Free African Society purchased a lot on the west side of Fifth Street and broke ground on the African Episcopal Church of St. Thomas, which was completed in 1794.[11] (Richard Allen also founded The Bethel African Methodist Episcopal Church in 1794, which remains standing today, known as Mother Bethel. The church is the longest continuously owned property by African Americans in the country, located just south of Washington Square at Sixth and Lombard Streets.)

Yellow Fever Epidemic of 1793

In 1793, the worst Yellow Fever epidemic to date broke out in Philadelphia and about one third of the resulting dead (1,334) were buried in the Potter's Field. At first, the dead were buried in individual graves; however, as deaths increased, bodies were interred in trenches.[12] The African American community, particularly the Free African Society, provided substantial aid to many of the city's residents during the epidemic, responding to the mayor's call for assistance burying the dead in Potter's Field. The society ended the year of 1793 in debt £177/9/8 largely because of the expenses they incurred bedding and moving Yellow Fever victims.[13] In turn, this assistance garnered the support of the white community for the completion of the African Episcopal Church of St. Thomas and its adjoining burial ground in 1794.[14]

The 1793 Yellow Fever epidemic was not the last in Philadelphia. The fever returned in 1794, 1795, 1796, and 1798, though never as fiercely as in 1793. On

September 20, 1793 Jacob Hiltzheimer, a Representative of the City in the Assembly from 1786 to 1797, recorded in his diary, "The burials in the Potter's Field were upwards of twenty to-day. My daughter Betsey was bled again to-day." Two days later on September 22nd, Hiltzheimer wrote, "After breakfast, drove to the meadow. The number of burials in the Potter's Field was greater to-day than yesterday."[15] By the following month, the rate of burial in the Potter's Field was truly evident as Hiltzheimer recorded, "Mr. Joseph Ogden, who superintends the burial of the poor, told me that 517 bodies have been interred in the Potter's Field between August 19 and October 1."[16] A broadside bill of mortality from 1793 indicated that there were 1426 burials in the Stranger's Ground between December 25, 1792 and December 25, 1793.[17] In addition to the previously interred Revolutionary War soldiers and an unknown number of 'strangers,' the number of burials in the Potter's Field was staggering. Scharf and Westcott recorded that there were so many burials in the Potter's Field that no more could be made without disturbing the remains of those previously interred.[18] As such, the City closed the Potter's Field to burials in 1794.[19] A.P. Folie's 1794 *Plan of the City and Suburbs of Philadelphia* is the last to indicate Southeast Square as a potter's field.[20] City closing of the Potter's Field opened up the site to public use and improvements.

Landscaping Begins Following the Close of Potter's Field

In 1794, following the close of the Potter's Field, a row of Lombardy Poplars was planted along each side of Southeast Square, following a citizen's petition. According to *Moreau de St. Mery's American Journey*, in the late 1790s, "plans had been made to turn it into a pubic promenade."[21] In *Gardens of Colony and State*, Alice B. Lockwood wrote, "in 1794-5 and the Council ordered that two rows of trees be planted in addition to the row already there. The committee to which the subject was referred made report that in their opinion public walks were very desirable, and therefore the square should be improved."[22] Within just a few years, it appears that the square was opened as a public walk.

On May 4, 1795 the joint Councils passed a resolution to open Seventh Street through the square.[23] The antiquarian Watson reported in his *Annals*, Seventh Street continued through Southeast Square (and Northeast Square) and "was fenced on both sides, though unpaved."[24] The following year, minutes of the Common Council meeting indicate that Southeast Square "is now inclosed [*sic*] by a board fence. In the center of the square is a small portion of Ground enclosed with a brick wall used as a burial place in which some of the family of J. Carpenter…are interred, by what right is unknown to your Committee."[25]

Just a few years later, in 1797, Charles Wilson Peale, live-in curator at Philosophical Hall envisioned State House Square and Southeast Square (Independence Square and Washington Square, respectively) united together to make a shaded gravel walk by erecting a high arched wooden bridge between Independence Square wall abutments and Southeast Square.[26] In the ensuing decades, a growing association developed between the two squares, although there is no evidence an arched bridge was ever constructed. Jeridiah Morse, also writing in 1797, reported, "Potters-field, formerly a public burying ground, is now converted into a public walk, and planted with rows of Lombardy poplars on each side. When the trees are grown, and the ground leveled, it will be one of the most pleasant promenades in the vicinity."[27] Development along the west side of the square ensued, culminating in 1799 with "Sansom's Row" on Walnut Street about Seventh Street. This row of stately Federal style houses was designed by architect Benjamin Henry Latrobe.[28]

In 1790, the Assembly gave the Common Council power to raise and levy taxes "for the purposes of lighting, watching, watering, pitching, paving and

cleansing the streets, lanes, and alleys of the City."[29] Following citizen petitions dated December 11 and 27, 1799, the City Commissioners resolved "to provide and fix curb stones and pave the footways adjoining the south east public square in Walnut Street and that they regulate said street from sixth to eight [*sic*] streets From Delaware and pave the gutters thereof as early as the weather will permit." However, this resolution was rejected by the Committee to whom it was referred on March 13, 1800.[30] A second petition was submitted on February 5, 1801 and accepted by the Select Council on February 13, 1801, "resolved by the Select and Common Councils that the proposal made by William Sansom to advance a sum of money sufficient to defray the expence [*sic*] of paving Walnut Street between 6th and 8th streets (allowing him interest therefor [*sic*] until paid) be accepted and that the Commissioners be directed to proceed to the paving thereof as early as its is practicable agreeable to the conditions specified in his offer."[31] An 1805 letter from William Sansom to the Select and Common Councils indicates that during the summer of 1805, Walnut Street was paved from Seventh to Eighth Streets, but following heavy rains and the development of dangerous ruts, the paving proved to be impassable. The city did not have the funds to continue the paving, instead appealing to the "memorialists" for a two year loan. The "memorialists" consented to loan $800, for which the City Treasurer's receipt is dated June 20, 1805.[32]

In April 1797, a cattle market opened on Dock Street on Wednesdays and Saturdays. Shortly after its opening, the market was moved to Seventh Street between Walnut and Prune Streets (now Locust Street), adjacent to Washington Square.[33] According to Frank Collinger's recollections in 1859, the horse market, operated by John M. Irwin, was held on Locust Street, at the rear of the Potter's Field.[34] Despite improvements around the square, including the nearby addition of "Sansom's Row" in 1799, the unsightly livestock market remained. On August 6, 1801, the Common Council put forth a resolution to expand the space appropriated for the market. It was:

> resolved by the Selt. and Common Councils that the city commissioners be directed to remove apart [*sic*] of the fence on the west side of Seventh Street between Walnut and Spruce Streets and on the east side of the Street called Little seventh Street (now West Washington Square) so as to lay open a part of the public square not less than 60 nor more and 80 Feet wide near the posts fixed in Seventh Street to be used together with the ground already appropriated for a horse and cattle market. The Select Council non-concurred in said resolution.[35]

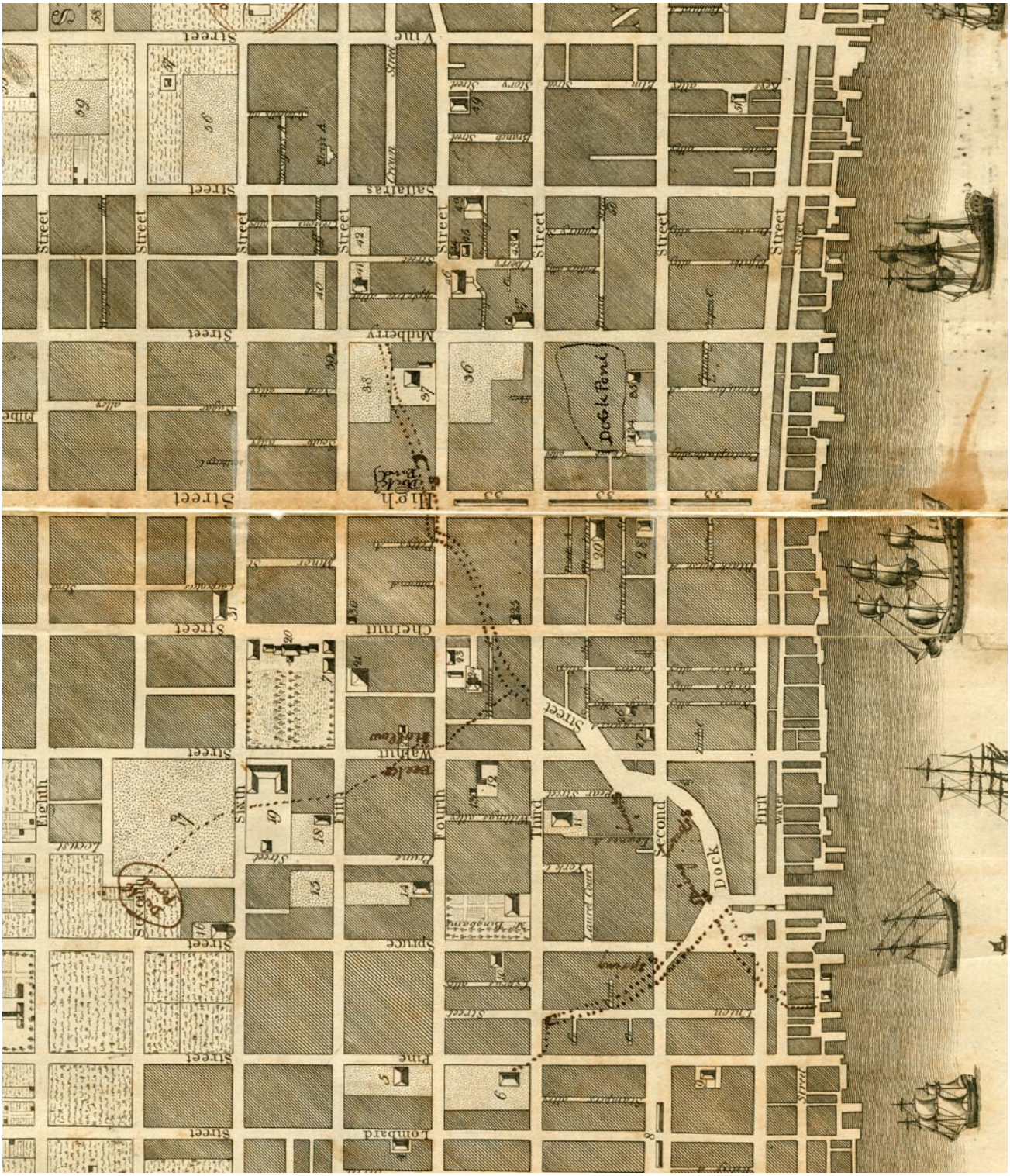


Figure 1.10: *Detail of 1794 Davies map in Watson's Annals with later pen notes by J.F. Watson showing the course of Dock Creek and its tributaries, leading from the Duck Pond on Washington Square. Also note Beek's Hollow, labeled along Walnut Street between Fourth and Fifth Streets (The Library Company of Philadelphia).*



Figure 1.11: *Blueprint tracing of a 1795 map of Philadelphia given to Thomas Mifflin, Governor and Commander in Chief of the State of Pennsylvania by "the Editor" showing Southeast Square (17, center), including what is likely the Carpenter family plot at its center. Note the design of the State House Yard to the northeast of the square and the undeveloped area at the southwest corner of the square and* that Seventh Street terminates *at the square, as it was opened through the square in 1795 (Historical Society of Frankford).*

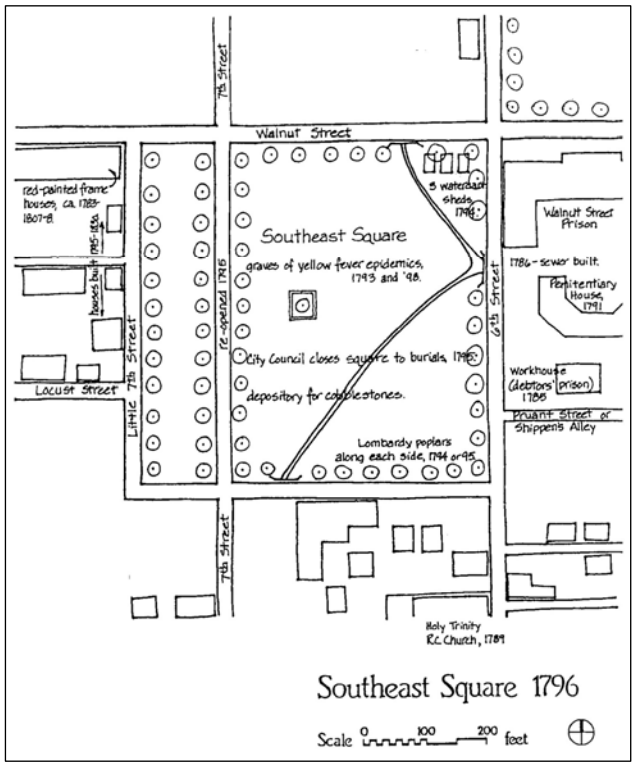


Figure 1.12: *Denise Rabzak's period diagram for Washington Square, 1796, showing Seventh Street open through the square and Lombardy Poplars around the perimeter of the square (Washington Square in Historic Society Hill: A Site Plan Chronology, 1683-1984).*

On January 15, 1801, citizens submitted a petition for pumps or fountains on Walnut Street between Sixth and Eighth Streets.[36] However, there is no evidence that water was provided along the street at that time. In 1802, another petition was presented to the City Councils for improvement along Walnut Street: "The Memorial of Sundry Citizens soliciting Council to throw out thirty feet of the publick [*sic*] ground called Potters field on the South side of Walnut [Street], between 6th and 7th Streets and that two rows of Trees in addition to the one already there may be planted and the ground so as to from a publick [*sic*] walk, was presented read and referred to Messrs. Bartram Thewell and Shoemaker."[37] However, it is not known if the petition for additional rows of trees was approved by the Council.

In response, on May 13, 1802, the first steps toward major improvements of Southeast Square itself were approved by the Select and Common Councils:

> The Committee to whom was referred the Memorial of Sundry citizens [re: trees for Potters Field]....made Report that they have viewed the ground attentively and obtained as much information as they could on the subject, that ***they believe that publick [sic] walks are highly necessary in a large City, a they [sic] are conducive to the health, convenience and innocent recreation of the Inhabitants*** [emphasis added]; that there are fewer places of this kind in this City than perhaps in any other of the same magnitude and that every improvement of the above nature that can be conveniently made should be encouraged. They are therefore of opinion that the prayer of the petitioners is reasonable and ought to be granted. That they are further of opinion that it would be advisable to extend the walk contemplated by removing the fence on the west side of sixth street five feet within the row of Trees; by planting another row Trees [*sic*] on sixth street; by totally removing the wooden building used by the City Commissioners from their present situation to the Corner of seventh street and the horse market; and by rounding the Corner of the ground at Walnut Street and sixth street, by describing a curve from two points equi-distant from the comer; and not exceeding one hundred feet each way. Your Committee therefore offer the following resolution vis. ***Resolved by the Select and Common Councils that the City Commissioners be directed to lay out the above ground for a publick [sic] walk in manner and form as above described, provided that the whole be fenced from the street way, by a substantial railing to prevent the intrusion of horses and carriages and provided that the corporation of the City be not called upon for the expence [sic] thereof, but that it be defrayed by voluntary contribution***, allowing

> however the part of Walnut Street to be first completed provided the funds cannot be conveniently raised to do the whole at once— which report was read and adopted. The Select Council concurred in the foregoing resolution.[38]

Thus, the City Councils directed the City Commissioners to construct a walk on the west side of Sixth Street with a fence to protect pedestrians from traffic in the adjacent street, provided the costs to the city were defrayed by private contributions. They also planted a second row of trees along Sixth Street. Several buildings at the corner of Seventh Street and the horse market were also directed to be removed at this time. The livestock market, however, remained until Councils ordered in May 1815, "that the cattle-market should cease at that place [along Seventh Street and west], and it was transferred to the hay-market, in Sixth Street, above Callowhill." [39]

In January 1803, the Common Council received a petition from the owners and occupiers of the block south of the Southeast Square between Seventh and Eight Streets indicating that their property was overflowed with water during heavy rains, which became stagnant following the storms. Historic descriptions show that one of the Dock Creek tributaries flowed through this block, feeding the duck pond, which itself was located just to the east near the southwest corner of Southeast Square (Figure 1.11). The citizens' petition was referred to the streets committee to determine which streets required paving to remedy the problem.[40]

On April 2 and 7, 1803, the Common Council "resolved that such of the citizens as may find it convenient be permitted to deposit in the S.E. public square of the City any earth suitable for filling up the said square subject to the regulation and direction of the City Commissioners."[41] The decision was quickly reversed, and on April 16, 1803, the Select and Common Councils resolved "that no dirt shall hereafter be deposited in the S.E. public square of the City of Philadelphia."[42] However, the Councils remained interested in leveling the irregular terrain of the square in a more orderly manner and in November 1805 resolved:

> Whereas the Citizens inhabiting the neighbourhood [*sic*] of that part of the south east Public Square, which parts on Walnut Street, have commenced the improvement of the same at their own expence [*sic*], under the authority of a Resolution of Councils and whereas they are prevented from the completion of their intended improvement by a Ravine, or water-course, which runs in a diagonal direction from Walnut to Sixth streets – Therefore in order that the contemplated improvements should not be delayed. ***Be it resolved that the Select and Common Councils, that the City Commissioner, forthwith cause sidewalls to be built along the said water-course, to the distance of at least thirty five feet south from Walnut Street, and to lay the bottom thereof with such condemned water logs, as the Watering Committee can spare, or otherwise to cover, or arch the same, so that the course of water be not impeded, nor the improvements delayed*** [emphasis added]. Provided the expence [*sic*] of erecting the said Wall, and laying the said logs, does not exceed the sum of One hundred Dollars, and charge the same to Appropriation No. 2.[43]

Thus, the Councils jointly authorized the City Commissioner to put the Dock Creek tributary that ran from Walnut Street to Sixth Street through the northeast corner of the square underground, as the City as a whole continued to expand based on Holme's plan. In 1812, the Common Council authorized the City Commissioners to have a second tunnel constructed under Southeast Square, to extend from the eastern side of the square at Sixth Street in a southwestern direction across the square

to toward the intersection of Locust and Seventh Streets, provided that funding was paid into the City Treasury on interest-free loan for two years (Figure 1.13).[44] (Around the same time, Mr. George Vaux, who later played an important role in the design of the square, appears in Council records for the first time relative to Southeast Square heading a committee on the public squares.[45])

In the same 1812 resolution, the Councils jointly resolved that "the South east public square [was] to be surrounded by a suitable open fence provided, that the sum to be drawn from the city Treasury for the purpose aforesaid shall not exceed $400."[46] This resolution was perhaps in response to an earlier (September 14, 1808) citizens' petition from the inhabitants on and near Walnut Street stating that "the fence of the Potter's Field is in want of repair and praying permission to repair the same, or put up a new one at their own expensce [*sic*]."[47]

With the City growing westward, streets were paved and improvements undertaken in the vicinity of Southeast Square, both to improve drainage and reduce levels of street dust in the city.[48] During the summer of 1805, the Common Council authorized the paving of Walnut Street from Seventh to Eighth Streets.[49] However, a later Common Council resolution from April 11, 1811 indicates that the street was just being prepared for paving: "the City Commissioner cause the earth which it may be necessary to remove in order to prepare Walnut Streets [*sic*] and the neighbouring [*sic*] streets for paving to be place[d] upon such parts of the South-east public square as are lower that [*sic*] the adjoining Footways."[50] Later, in 1822, the Councils jointly directed the City Commissioners to pave Walnut Street from Dock Street to about sixty (60) feet west of Sixth Street.[51] In October 1805, the Common Council resolved to pave Sixth Street between Walnut and Prune (now Locust) Streets from side to side.[52] However, a September 17, 1806 resolution suggests that the paving of Sixth Street occurred later: "the Commissioners…hereby are authorized, to pave the said Sixth Street opposite the Public Square from side to side, instead of in part, as heretofore ordered."[53] In 1805, a writer describing the city in *The Port Folio*, said:

> The streets of Philadelphia are paved with pebblestones, and bordered with ample footways, raised one foot above the carriageway, for the ease and safety of passengers. They are kept cleaner than those of any city in Europe, excepting the towns of Holland…London is the only capital in the world that is better lighted at night. Many of the New Streets have been laterally planted with Poplars…Their introduction has also ready given to some section the air of Public Walks, for ornament of which nothing is wanting but Fountains and Statuary.[54]

During this era, for the first time, the city was asked to permit alternative uses of the square. In 1809, a petition for the use of the public square was submitted to the Councils by John Connelly, Lieut. Col. Artillery, "Your memorialists [*sic*] beg leave to represent that the southeast public square would answer all the purposes contemplated. They do therefore solicit and pray the Council to grant the priviledge [*sic*] of erecting a Brick Building sufficient to hold the guns of the Regiment Artillery and the square for the use of the company's and Regiment's to exercise thereon."[55] Then, on February 22, 1810, "Mr. Browne read in his place a Bill for appropriating the South East public square for a parade grounds for the Militia of the City of Philadelphia and other purposes, which was ordered to lie on the table."[56] Although the outcome of the petitions are not clear, they were likely turned down by a December 20, 1810 resolution "not to lease all or any part of the North-east or South-east public square until authorized to do so by a resolution of Councils."[57]



Figure 1.13: *Detail of "A Ground Plat of the City of Philadelphia Marking the as […] of Streets, elevation for the Regulated Curbstone, and e[x]hibiting the main Tunnels &c. [For particulars see the Book corresponding herewith. [March] 15th 1809. Reading Howell." This plan shows the elevations of streets along the perimeter of the square, as well as the course of the two creeks that historically ran through the square, with the southern creek channelized by 1809. The northern creek was channelized a few years later. A common sewer is also present along the northern side of the square, where it ties into a creek at the northeast corner of the square, providing drainage from properties north and west of the square. (City Plans Division of the City of Philadelphia Bureau of Survey and Design).*

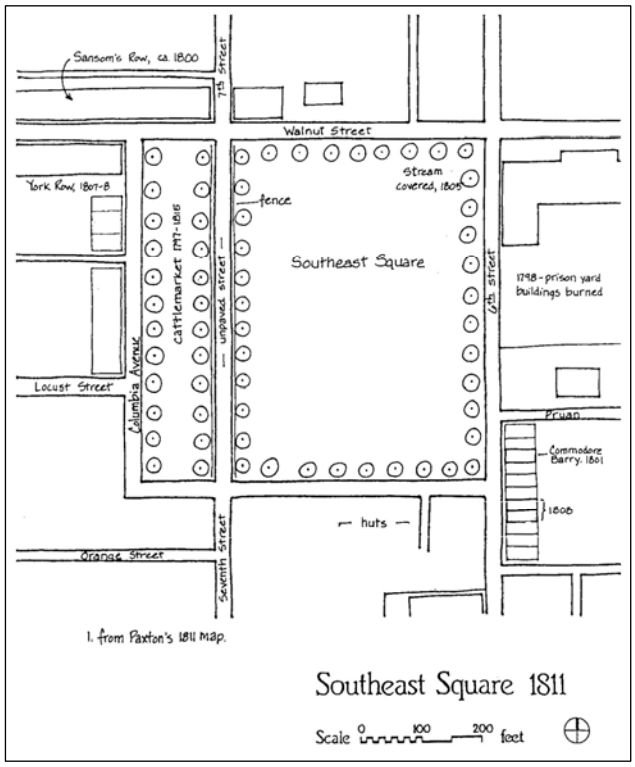


Figure 1.14: *Denise Rabzak's period diagram for Washington Square, 1811, showing the watercourses covered and buildings removed from the northeast corner of the square. However, later evidence shows that the northern watercourse was not completely covered until 1816 (Washington Square in Historic Society Hill: A Site Plan Chronology, 1683-1984).*

Building around the Square

In 1774, the Friends purchased a tract of land on the western side of the square from the Penn family. By 1782, the Friends had enclosed the Seventh Street frontage near the southwest corner of the square for burial, although only one interment was made on account of water three feet below the surface. Most of the land was sold for building purposes.[58] By the time John Hills produced his detailed 1796 "Plan of the City of Philadelphia," there were several houses on the west side of the square to the north of Locust Street, which were likely the red-painted frame houses described by Watson in his *Annals*.[59] The second set of red-painted frame houses described by Watson at the northern end of this block (north of Goodwater Street, now St. James Street) date to circa 1783.[60] In 1807-8, these houses were replaced by York Row, built in cooperation between carpenter Joseph Randall and bricklayer Thomas S. Ridgeway.[61] To the south of Locust Street, the 'Lisle Houses' were added from 1818 to 1823.[62] Later, in 1832, John Morin Scott, later Mayor of Philadelphia, bought 224 Little Seventh Street, near the southwest corner of the square.

In 1794, John Swanwick purchased nearly all of the Logan land along Walnut Street west of Seventh Street and in 1796 began constructing.[63] Similarly, in 1797, William Sansom acquired Robert Morris's property on Walnut Street between Seventh and Eighth Streets, and hired architect Henry Latrobe to design houses for the block, which was completed in 1799. As such, these row houses, known as 'Sansom's Row,' are generally considered the first Philadelphia row houses to be built on a uniform plan.[64] These block-long rows of houses were a novelty in America. When built elsewhere they were known as 'Philadelphia rows.'[65]

In the wake of the Revolutionary War, the Philadelphia Society for Alleviating the Miseries of Public Prisons, founded in 1787 by Dr. Benjamin Rush and several other men from the city, advocated for reform of the Walnut Street prison, which was renovated in the 1790s to alleviate suffering and encourage inmates' reflection.[66] The new prison established cells for solitary confinement and separated criminals from debtors. On January 9, 1793, a crowd gathered in Southeast Square to see the first air voyage in America as a balloon ascended from the prison yard under the direction of Jean Pierre Blanchard, passing over the city and landing near Woodbury, New Jersey. Watching the flight was President George Washington.[67] A subsequent balloon flight on July 4, 1797 carried animals from the prison yard to the Market Street wharf.[68] In 1836, the prison property was sold for $299,000.99. The purchaser, John Moss, proposed to construct a hotel called the Penn Hotel, but the proposal fell

through.[69] The property was subsequently divided into building sites to be again much later combined into one plot by the Penn Mutual Life Insurance Company for its new building in 1912.

In 1836, John Moss purchased the Walnut Street Prison on the eastern side of the square and demolished it in 1837 in anticipation of constructing a large hotel, The Penn. Although Moss's venture failed, the demolition of the Walnut Street Prison and debtor's prison (added in 1785 at Prune Street, now Locust) opened the land at the corner of both Washington and Independence Squares for redevelopment. The first of the houses to be erected along the eastern side of the square was the home of Horrace Binney Jr., lawyer, and founder and first president of the Pennsylvania Horticultural Society.[70] The group of three-story Colonial style houses that were eventually completed here became known as 'Lawyer's Row.' These properties were the homes and offices of many prominent members of the bar and bench, close to the court house, which then stood in Independence Square. The older and wealthier attorneys kept their homes and offices along Walnut Street, while the younger attorneys were along Sixth Street, then known as 'Poverty Row.'[71] Much later, the Athenaeum of Philadelphia was added mid-block along Sixth Street in 1847, based on a design by architect John Notman.

In the first quarter of the nineteenth century, the south side of the square included several huts, which Watson described as "miserable and deformed a set of negro huts and sheds as could be well imagined."[72] These huts were replaced with six new houses from 1822 to 1832. These houses were occupied by prominent Philadelphia families, including the Merediths and the Penroses. William Morris Meredith (1799-1873), Secretary of the Treasury under President Zachary Taylor, spent some of his childhood on South Washington Square. One of these houses was occupied by James Brown (1766-1835), former minister to France. The Classical Revival style First Presbyterian Church was constructed on the south side of the square from 1820 to 1822, designed by architect John Haviland. Haviland, who came to Philadelphia from London in 1816, had planned to establish a drawing school with noted artist Hugh Bridport. From 1818 to 1821 they published the three-volume *Builder's Assistant* together.[73] The First Presbyterian Church was occupied until 1928 and demolished in 1939.

Summary, 1776-1815

By 1776, the square was enclosed by a board fence and is known to have provided a gathering place on holidays for African Americans, with an area set aside for Revolutionary War burials and burials of victims of the yellow fever epidemic of 1793. The African American community continued to guard their burials in Potter's Field and in 1782 petitioned to fence their burial plot. After being denied by the City, they worked to establish an independent burial ground.

As Philadelphia developed as the second nation's capital beginning in 1790, improvements to Southeast Square began to give it a landscaped effect, beginning with closing the square to burials in 1794 and the planting of Lombardy Poplars around the perimeter of the square and along Seventh Street, which bisected the square beginning in 1795. Shortly after the turn of the century, citizen petitions drove the development of the square, which saw construction of a new walk on the west side of Sixth Street, an associated new fence, and additional tree planting. Increased city and citizen interest in the square resulted in the beginning of leveling the sloping terrain in 1803 and authorizing the channelization of one of the Dock Creek tributaries into a culvert in 1805. However, the topography remained relatively uneven and it is not until after 1815 that the character of Southeast Square began to resemble an urban park. Despite development around the square as the City grew westward, a livestock market, opened in 1797 along the western side of the square, remained in

operation until 1815. After the turn of the nineteenth century, Sixth Street was paved along the square, with Walnut Street paved after 1811.

Endnotes

[1] *Pennsylvania Statutes at Large*, 9:490, 511, as quoted in Richard G. Miller. "The Federal City, 1783-1800" in Russell F. Weigley, ed. *Philadelphia, A 300-Year History*. New York, NY: W.W. Norton & Company, 1982, p. 151.

[2] Nicholas B. Wainwright. "Philadelphia's Eighteenth-Century Fire Insurance Companies," in Luther P. Eisenheart, ed. *Historic Philadelphia: From the Founding Until the Early Nineteenth Century: Papers Dealing with Its People and Buildings with an Illustrative Map*. Philadelphia, PA: American Philosophical Society, 1953, pp. 250-51, in Miller. "The Federal City," p. 151.

[3] Jacob Cox Parsons, ed. *Extracts from the Diary of Jacob Hiltzheimer, of Philadelphia*. Philadelphia, PA: Press of Wm. F. Fell & Co., 1893, pp. 83-84.

[4] Common Council Minutes, Book I, Thursday, 29 September 1796, Roll XXV.

[5] Typescript copy of the citizens' memorial, undated, in Sellers Coll., Folder 9, Independence National Historical Park, as quoted in Anna Coxe Toogood, Historian, National Park Service, Independence National Historical Park. "Cultural Landscape Report, Independence Square, Volume One, Historical Narrative," 2004, p. 117.

[6] Parsons, ed. *Extracts from the Diary of Jacob Hiltzheimer*, p. 180.

[7] Stephanie Farr. "Fundraiser for Fence of History at Delco's Eden Cemetery." *Philadelphia Daily News*, 16 October 2008. See also Gary B. Nash, F*orging Freedom: The Formation of Philadelphia's Black Community, 1720-1840.* Cambridge, MA: Harvard University Press, 1988, p. 94.

[8] William Shippen Jr. to Thomas Lee Shippen, 18 December 1787. Thomas L. Shippen Papers, Library of Congress.

[9] Ibid.

[10] Gary B. Nash. *Forging Freedom: The Formation of Philadelphia's Black Community, 1720-1840*. Cambridge, MA: Harvard University Press, 1991, p. 109, and Toogood, "Cultural Landscape Report, Independence Square," p. 129.

[11] Gary B. Nash. *Forging Freedom: The Formation of Philadelphia's Black Community, 1720-1840*, Cambridge, MA: Harvard University Press, 1988, p. 108, as referenced in Toogood. "Cultural Landscape Report, Independence Square," pp. 128-29

[12] Toogood. "Cultural Landscape Report, Independence Square," p. 130-31, from Drinker, *Not So Long Ago*, p. 112, and John Harvey Powell, *Bring Out Your Dead The Great Plague of Yellow Fever in Philadelphia in 1793* (New York, 1949), pp. 13-16; Isaac Heston to His Brother Abraham, Sept. 19, 1792, Independence National Historical Park Museum Collection; Benjamin Rush, M.D., *An Account of the Bilious remitting Yellow Fever as it appeared in the City of Philadelphia in the year 1793* (Philadelphia, 1794), pp. 317, 322-3; A[bsalom] Jones and R[ichard] Allen, *A Narrative of the Proceedings of the Black People, During the Late Awful Calamity in Philadelphia in the Year 1793 and A Refutation of the Censures, Thrown upon them in some late Publications* (Philadelphia, 1794), p. 4; Matthew Carey, *A Short Account of the Malignant Fever, Lately Prevalent in Philadelphia: with a statement in Different parts of the United States* (Philadelphia, Nov. 14, 1793), appendix; Elaine Forman Crane, ed., *The Diary of Elizabeth Drinker, Three Volumes, I* (Boston, 1991), p. 510; Butterfield, ed., *The Letters of Benjamin Rush, II*, p. 722; Julie Winch, *Philadelphia's Black Elite* (Philadelphia, 1988), p. 16.

[13] Richard G. Miller. "The Federal City, 1783-1800" in Russell F. Weigley, ed. *Philadelphia, A 300-Year History*. New York, NY: W.W. Norton & Company, 1982, p. 187.

[14] Anna Coxe Toogood. "National Register Amendment, Independence National Historical Park, Underground Railroad and Anti-Slavery Movement," September 2000, Sec. 8, p. 22, And Toogood. "Cultural Landscape Report, Independence Square," p. 131 from Doctor Benjamin

Smith Barton (1766-1815), "facts, notes, etc. for an account of the yellow fever in Philadelphia," MSS, B.S. Barton Papers, American Philosophical Society.

[15] Jacob Cox Parsons, ed. *Extracts from the Diary of Jacob Hiltzheimer, of Philadelphia*. Philadelphia, PA: Press of Wm. F. Fell & Co., 1893, p. 195.

[16] Ibid., p. 196.

[17] Miller. "The Federal City," p. 183 from the Library Company of Philadelphia.

[18] Scharf and Westcott. *History of Philadelphia,* Vol. III, p. 2356.

[19] Scharf and Westcott. *History of Philadelphia,* Vol. III, p. 2356.

[20] Reproduced in Reps. *The Making of Urban America: A History of City Planning in the United States*. Princeton, NJ: Princeton University Press, 1965, Figure 101, p. 170.

[21] Médéric Louis Élie Moreau de Saint-Méry. *Moreau de St. Mery's American Journey, 1793-1798*, translated from the French edition by Kenneth Roberts and Anna M. Roberts. New York, NY: Doubleday and Company, 1947, pp. 343-44.

[22] Alice B. Lockwood. *Gardens of Colony and State*, Vol. I, New York, NY: Charles Scribner's Sons for the Garden Club of America, 1931-34, p. 335.

[23] Francis James Dallett. *An Architectural View of Washington Square*. Frome, England: Butler & Tanner, 1968, p. 21. And George Vaux to Mr. Bronson, n.d. (circa 1816-1824).

[24] John F. Watson, rev. by Willis P. Hazard. *Watson's Annals of Philadelphia and Pennsylvania*, Vol. III, Philadelphia, PA: Edwin S. Stuart, 1899, p. 230.

[25] Common Council Minutes, Book I, Thursday, 29 September 1796, Roll XXV.

[26] Toogood. "Cultural Landscape Report, Independence Square," p. 117, citing Sellers Papers, Charles Wilson Peale's Autobiography, typescript copy, p. 233, American Philosophical Society.

[27] Jeridiah Morse. *American Gazettier*, 1797, under "Philadelphia."

[28] *American Daily Advertiser*, #7071, 13 August 1799, p.4., Independence National Historical Park card files, "Misc. Fringing Park Area, bet. 6-7," as cited in Toogood. "Cultural Landscape Report, Independence Square," pp. 133-134.

[29] Richard G. Miller. "The Federal City, 1783-1800" in Weigley, ed. *Philadelphia*, pp. 166-167.

[30] Minutes of the Common Council Vol. 2-Feb. 18, 1799-Jan. 13 1803, p. 78, as quoted in Wendy A. Woloson, Ph.D. for the History Branch, Cultural Resources Management Division, Independence National Historical Park, National Park Service, U.S. Department of the Interior. "Washington Square: Bibliography of Source Material," March 2000, p. 24.

[31] Minutes of the Common Council Vol. 2-Feb. 18, 1799-Jan. 13 1803, p. 157, as quoted in Woloson. "Bibliography," p. 23.

[32] Phila., County of, Misc. Papers, 1802-1855, Am. 3841, HSP.

[33] Thompson Westcott. *A History of Philadelphia*, Philadelphia, PA: Bulletin Co., 1947, 3: Chapter CCCXXXII, as quoted in Denise R. Rabzak for the National Park Service, Independence National Historical Park. "Washington Square: A Site Plan Chronology, 1683-1984," May 1987, p. 6.

[34] *Sunday Dispatch*, 30 October 1859. [LCP, Poulson's Scrapbooks of Phila. History, vol. VIII, p. 33], as cited in Woloson. "Bibliography," p. 51.

[35] Minutes of the Common Council Vol. 2-Feb. 18, 1799-Jan. 13 1803, p. 178, as quoted in Woloson. "Bibliography," p. 24.

[36] Minutes of the Common Council Vol. 2-Feb. 18, 1799-Jan. 13 1803, p. 130, as quoted in Woloson. "Bibliography," p. 24.

[37] Minutes of the Common Council Vol. 2-Feb. 18, 1799-Jan. 13, 1803. p. 246, as quoted in Woloson. "Bibliography," p. 25.

[38] Minutes of the Common Council Vol. 2-Feb. 18, 1799-Jan. 13 1803, pp. 248-249, as quoted in Woloson. "Bibliography," p. 25.

[39] Scharf and Westcott. *History of Philadelphia,* Vol. III, p. 1845.

[40] Minutes of the Common Council Vol. 2- Feb. 18, 1799-Jan. 13, 1803, p. 285, as cited in Woloson. "Bibliography," p. 25.

[41] Minutes of the Common Council Vol. 3- Jan. 1803-May 17, 1813, pp. 14, 16, as quoted in Woloson. "Bibliography," pp. 25-26.

[42] Minutes of the Common Council Vol. 3- Jan. 1803-May 17, 1813, p. 25, as quoted in Woloson. "Bibliography," p. 26.

[43] Minutes of the Common Council Vol. 3- Jan. 1803-May 17, 1813, pp. 150-151, as quoted in Woloson, "Bibliography," p. 27.

[44] Minutes of the Common Council Vol. 3- Jan. 1803-May 17, 18183, pp. 545-6, as cited in Woloson. "Bibliography," p. 28.

[45] Minutes of the Common Council Vol. 3- Jan. 1803-May 17, 18183, pp. 521, as cited in Woloson. "Bibliography," p. 28.

[46] Minutes of the Common Council Vol. 3- Jan. 1803-May 17, 18183, pp. 545-6, as cited in Woloson. "Bibliography," p. 28.

[47] Minutes of the Common Council Vol. 3- Jan. 1803-May 17, 1813, p. 268, as quoted in Woloson. "Bibliography," p. 27.

[48] As previously indicated, drainage of unpaved ways was resulting in stagnant pools. Jacob Hiltzheimer reported on October 2, 1793 that street dust was a health concern: "By request of Mayor Clarkson, the water engines began sprinkling the streets of the city, as it is said that a moist atmosphere will add to the general health. I have been watering Seventh Street from Market to half way to Chestnut Street, for the past ten days. Parsons, ed. *Extracts from the Diary of Jacob Hiltzheimer*, p. 196.

[49] Phila., County of, Misc. Papers, 1802-1855, Am. 3841, Historical Society of Pennsylvania.

[50] Minutes of the Common Council Vol. 3-Jan. 1803-May 17, 1813, p. 445, as quoted in Woloson. "Bibliography," p. 28.

[51] Minutes of the Common Council, Vol. 5-Mar. 25, 1819-Oct. 3, 1823, Phila. Municipal Archives, May 9, 1822, p. 312.

[52] Minutes of the Common Council Vol. 3- Jan. 1803-May 17, p. 198, as quoted in Woloson. "Bibliography," p. 27.

[53] Minutes of the Common Council Vol. 3- Jan. 1803-May 17, 1813, p. 268, as quoted in Woloson. "Bibliography," p. 27.

[54] *The Port Folio* 5 (April 6, 1805), as quoted in Edgar P. Richardson. "The Athens of America, 1800-1825," in Weigley, ed. *Philadelphia*, p. 221.

[55] "Petition for the use of the Public Square," 12 January 1809, MS, Petitions to the Council of Phila.

[56] Minutes of the Common Council Vol. 3- Jan. 1803-May 17, 1813, p. 339, as quoted in Woloson. "Bibliography," p. 28.

[57] Minutes of the Common Council Vol. 3- Jan. 1803-May 17, 1813, p. 339, as quoted in Woloson. "Bibliography," p. 28.

[58] Dallett. *An Architectural View of Washington Square*, p. 14.

[59] John F. Watson, rev. by Willis P. Hazard. *Watson's Annals of Philadelphia and Pennsylvania*, Vol. I, Philadelphia, PA: J.M Stoddart & Co., 1881, p. 230

[60] Dallett. *An Architectural View of Washington Square*, p. 11.

[61] Ibid.

[62] Ibid.

[63] Ibid., p. 8.

[64] Ibid., p. 10.

[65] Edgar P. Richardson. "The Athens of America, 1800-1825," in Weigley, ed. *Philadelphia*, p. 251.

[66] The first meeting of the Philadelphia Society for Alleviating the Miseries of Public Prisons was on May 8, 1787 and the following men were present:

Benjamin Rush, John Swanwick, John Morrison, Thomas Morrison, Tench Coxe, Zachariah Poulson, Thomas Lloyd, Joseph Moore, William Roger, John Haighn, James Whitehall, Richard Wells, Thomas Wistar, Jacob Shoemaker, Isaac Parrish, William Lane, Thomas Rogers, Samuel Griffiths, Francis Baily, Joseph James, Charles Marshall, John Olden, Caleb Lownes, Thomas Parkinson, John Morris, John Baker, Dr. George Duffield, James Reynolds, Benjamin Wynkoop, George Krebs, Dr. William White, Dr. Henry Helmuth, Dr. John Jones, Dr. William Shippen, Dr. Gerardus Clarkson, Jonathan Penrose, and Lawrence Sickle.

William White was named the first president and the following were the first officers: Richard Wells and Dr. Henry Helmuth (vice presidents); Roger (treasurer); Swanwick and Morris (secretaries); and Rush, Clarkson, Shippen, and Jones (physicians). Historical Society of Pennsylvania, Pennsylvania Prison Society Records, Collection 1946.

[67] Jean Pierre Blanchard. *Journal of my Forty-fifth Ascension, being the First Performed in America, on the Ninth of January, 1793*. Philadelphia, PA: Printed by Charles Cist, 1793. Reprinted Tarrytown, NY: William Abbatt, 1918.

[68] *Porcupine Gazette*, 5 July 1797.

[69] *Of Washington Square (Publisher's Square)*. Philadelphia, PA: Priv. print., 1912, p. 6.

[70] Dallett. *An Architectural View of Washington Square*, pp. 18-19.

[71] "Progress to Wipe Out 'Lawyers' Row; Buildings on Walnut and Sixth Streets in Which Noted Attorneys were Located to be Demolished,'" *Bulletin*, 11 September 1908.

[72] John F. Watson. *Watson's Annals of Philadelphia and Pennsylvania*, Philadelphia, PA: E.L. Carey & A. Heart, 1830, p. 351.

[73] Edgar P. Richardson. "The Athens of America, 1800-1825," in Weigley, ed. *Philadelphia,* p. 254.

Bridport's Design, 1815-1881

Overview

By 1815, the developed portion of the city extended between Vine and South Streets, with Southeast Square surrounded by development. In *Gardens of Colony and State*, Alice B. Lockwood noted, "before 1816 it was decided that the square should be abandoned as a cattle Market, and in 1816 it was resolved that it should be fenced. This was but one step from having it adequately laid out as a public park."[1] On October 26, 1815, the Select and Common Councils "resolved that a joint committee of two members of each Council be appointed to advise and assist the City Commissioners in the improvement of the Public Squares." The Select Council appointed George Vaux and William Rush (sculptor); and the Common Council appointed Watson (annalist) and Garret.[2] The following year, on November 14, 1816, Vaux and Wallace were appointed to the same positions by Select Council, and Stocker and Newcomb were appointed by the Common Council to "superintend the improvements of the South East Public Square."[3]

An undated plea to create a park at Southeast Square in the George Vaux collection at the Athenæum of Philadelphia, presumably by Vaux, cites the need for parks due to encroachment by city development, "with the exception of the State House Yard & the center square there is not at this time any place where the citizens of Philad. can enjoy the walking on the grass and under the shade of trees without stepping on private property." The author also acknowledges need for local park for "those classes whose occupations are mechanical or sedentary" and who can not travel outside of the city, "to a distance from their ordinary dwellings," and calls to keep the streets running through the square closed.[4] This plea relates directly to the surge of immigrants and the growing density of the neighborhood at the time. George Vaux was both philanthropic and practical, and recognized that the urban poor needed some open space for health and to curb impulses to act out against their hard lives.

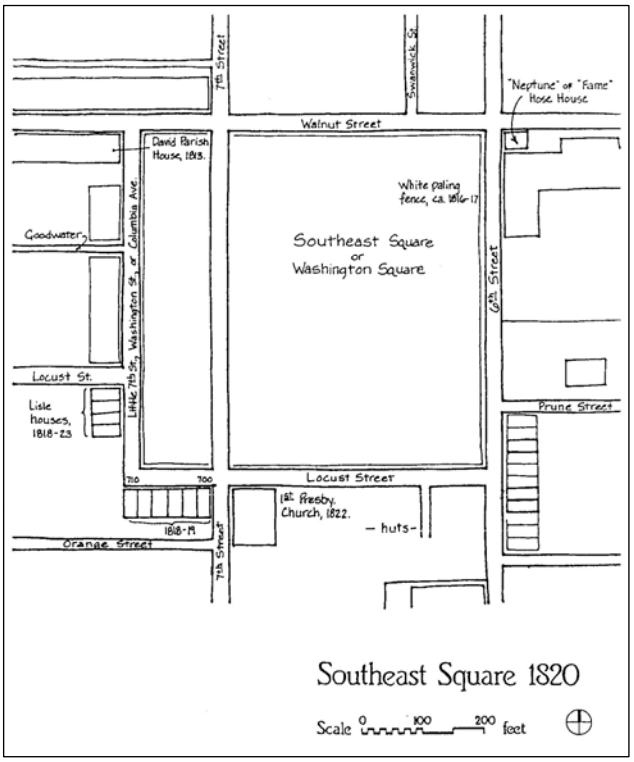


Figure 1.15: *Denise Rabzak's period diagram for Washington Square, 1820, showing Seventh Street extending through the square and the white paling fence in place. This diagram assumes that the Bridport design was not implemented until later (Washington Square in Historic Society Hill: A Site Plan Chronology, 1683-1984).*

The Vaux family was a prominent Philadelphia Quaker family active in a number of charitable concerns.[5] George Vaux was a name passed through many generations of the family, and as it related to Southeast Square, refers to George Vaux, Esquire (1780-1836), a native Philadelphian and member of the Society of Friends, who married to the daughter of William Sansom, developer of 'Sansom's Row,' constructed in 1799 along Walnut Street to the north

of Washington Square. Vaux studied law, but did not practice, instead serving in the municipal councils.[6] He lived near Washington Square on South Fourth Street and was integral to the early design of the square.[7] In 1832, George Vaux also served as the President of the Horticultural Society of Pennsylvania.[8]

Neighboring landowners were again engaged in the development of the square in 1815, when "Councils adopted a resolution that as soon as the owners and occupiers of property in the vicinity of the Southeast Public Square would pay fifteen hundred dollars into the City treasury a culvert should be built in the square, and the paving stones, lumber, and dirt should be removed from the line of Seventh Street. An open fence was to be put upon the Seventh Street front, and the other fences around the square were to be repaired."[9] In 1816, the Councils ordered that the city carpenter shop on Locust Street should be removed to Lombard Street and rubbish used to fill the square.[10] This final order suggests that the culvert was complete by 1816, and thus the carpenter shop was no longer needed. The rubbish associated with the shop could be used to fill the uneven terrain of the square, formerly associated with the Dock Creek tributary.

According to a 1933 portrait of the square, "In November [1816], Councils passed a resolution directing that the Southeast public square should be fenced according to its patent boundaries, and that gates should be left open opposite Seventh Street for the use of foot passengers. The street opened on the west side of Southeast Square was named by Councils Columbia Avenue."[11] However, this description of the square is misleading as the Seventh Street extension that ran through the square was not completely eliminated until 1822.[12]

George Vaux's papers at the Athenæum of Philadelphia indicate that funds expended on the Southeast Square in 1816 include payments to the City Commissioner for labor hands, Lawrence Harmstead for fence, J. Hallowell for layering, Zachariah Poulson for advertising, Bunting Watson for lumber, William Duane for advertising, and George J. Patterson for bricks,[13] with similar expenditures on the square in 1817.[14] Presumably, the bricks were used to pave the sidewalks surrounding the square, as the interior walks were surfaced with gravel, and also to construct a brick culvert that channelized the north stream branch.

In 1823, Thomas Wilson wrote in his *Picture of Philadelphia, for 1824*, "Washington Square, formerly the old Potter's Field, has been handsomely laid out into gravel walks, planted with trees, and fenced with handsome palings. At present, it is kept closed."[15] A 1957 sketch by the Athenæum of Philadelphia indicates that the public was admitted through gates for a stroll on the graveled walks only during the summer and autumn months in the early 1820s.[16] An 1829 account confirms the presence of gravel walks in the square by that date.[17]

A circa 1825 watercolor by John Carr in the collection of the Library Company of Philadelphia titled "Boys Playing Marbles in Washington Square," confirms the white paling fence surrounding the square in the 1820s (Figure 1.16). The image also shows gas lamps in the square and what appears to be an early guard box similar to those that stood in Independence Square circa 1785 and in Franklin Square by 1839.[18] The foliage of a Weeping Willow is visible in the distance. The white perimeter fence was still standing in January 1824 when the Common Council "resolved…that the within sum of one hundred and seventy nine dollars and seventy nine cents be and there same is hereby appropriated to pay the expense incurred in painting the fence around Washington Square."[19]



Figure 1.16: *"Boys Playing Marbles in Washington Square" by John Carr, 1825 showing the white paling fence (installed in 1796, replaced c. 1836 with an iron fence), a street lamp, and a cylindrical structure within the square, which appears to be an early guard box. Substantial, diverse tree growth that was likely planted 5-10 years earlier is also evident (The Library Company of Philadelphia).*

Bridport's Design

George Bridport (1783-1819) was born in London on March 22, 1783.[20] A decorative painter by trade, Bridport trained in England with landscape painter Robert Dixon and theatrical scenery painter Gaetano Marinari.[21] By 1808 he moved to the United States, and by February that year he was working on the ceiling of the House of Representatives in Washington, D.C. with architect Henry Benjamin Latrobe. This work, however, was destroyed by fire in 1814.[22] In 1809, Bridport was again in Washington, D.C. to paint the ceremonial oval drawing room of the President's house.

A resident of Philadelphia, the 1810 census lists Bridport as a "decorator" living at the northeast corner of Market and Tenth Streets. By 1818 he advertised himself as a decorative architect and furnisher at the northwest corner of Seventh and Chestnut Streets, a few blocks closer to Washington Square.[23] Bridport operated a drawing academy in 1816-17 with his brother, Hugh Bridport (1794-1870), a portrait and landscape painter, muralist,

miniaturist, engraver, lithographer, and architect who moved to Philadelphia circa 1816.[24] Shortly after, George Bridport was also reportedly working with John Haviland, one of the highest regarded architects of the time and designer of the First Presbyterian Church along the south side of Washington Square, constructed from 1820 to 1822.[25] In 1819, Bridport died in Havana, Cuba, where he traveled to restore his health after a pulmonary complaint.[26]

In November 1816, Bridport drew a plan for Southeast Square that established two diagonal paths across portions of the square and two walks that ran mid-block perpendicular to adjacent streets, all of which met at a round plaza at the center. The proposed plaza featured a central circular focal point and semi-circular areas in each quadrant of the plaza. Two circuit walks were also proposed within the interior of the square, with semi-circular approaches at the square's corners (Figure 1.17).

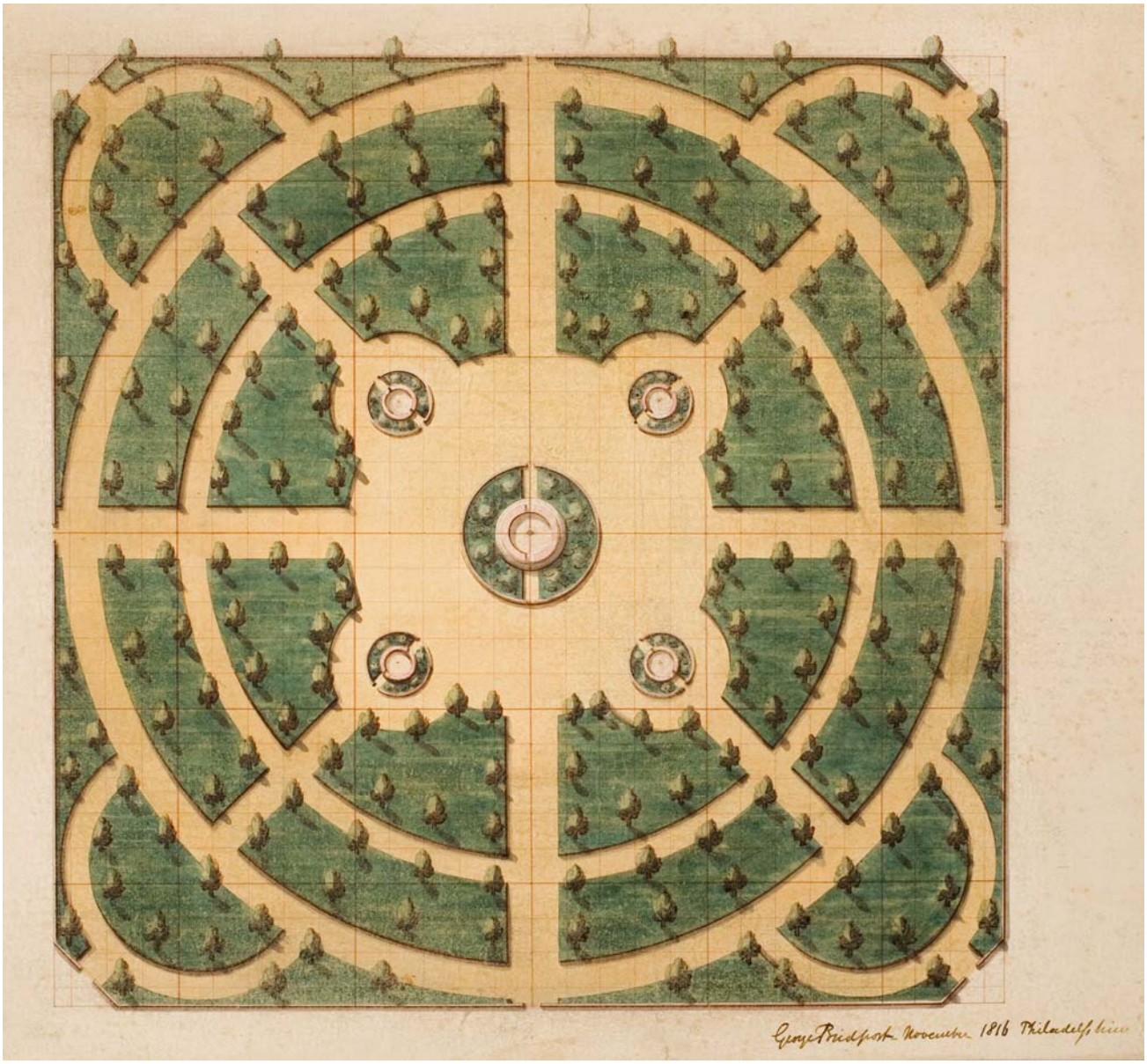


Figure 1.17: *George Bridport's November 1816 proposal for Washington Square. Note the differences between this plan and the final executed plan, shown in Figures 1.11 and 1.12 (The Library Company of Philadelphia).*

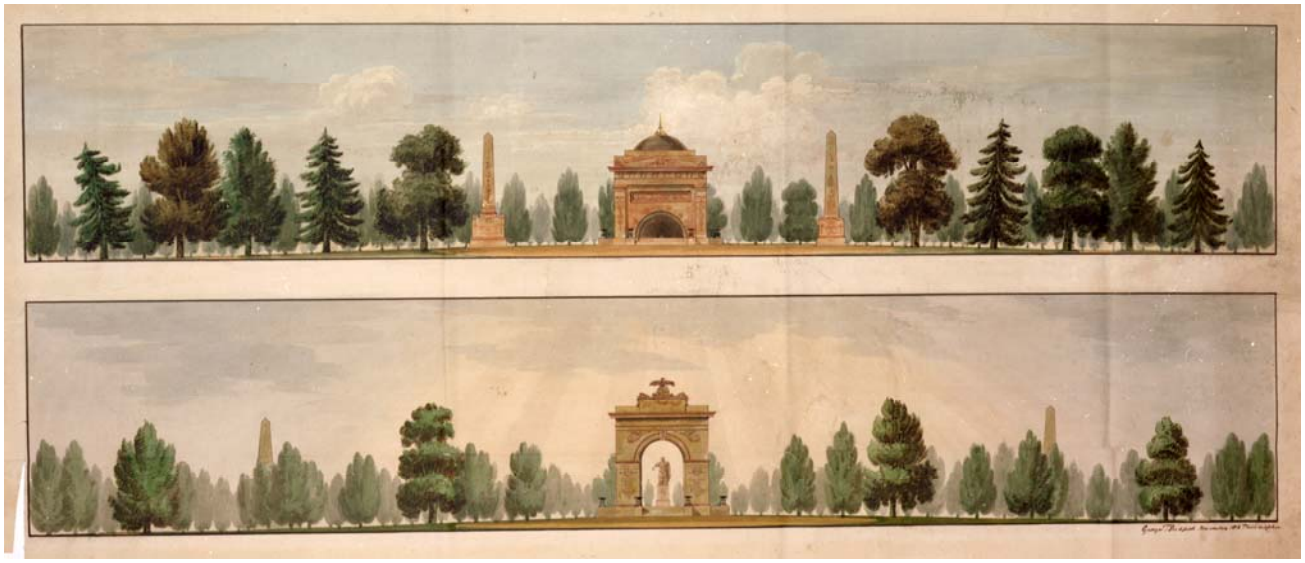


Figure 1.18: *Elevation showing two alternatives for memorials in Washington Square by George Bridport, November 1816. This proposal was in response to an 1810 movement initiated by the Society of the Cincinnati to memorialize George Washington (The Library Company of Philadelphia).*

To accompany his design plan, Bridport also prepared a section, which shows dense tree planting within the square as well as a substantial arch at its center, which likely represented Bridport's design proposals for a monument to George Washington (Figure 1.18). (Just six years earlier, in 1810, the Society of the Cincinnati began an effort to fund a monument to Washington.) Bridport's drawings for Washington Square, both now in the collection of the Library Company of Philadelphia, show marked similarities and differences from the final executed plan for Washington Square, as documented in later surveys.[27]

The final design plan has not been located. An 1828 etching in the collection of the Library Company of Philadelphia titled "Promenade in Washington Square" is the earliest drawing to show circular walks in place on the square (Figure 1.19). A plan in the collection of the Pennsylvania Horticultural Society, which dates to circa 1835-40 also shows the layout of the square, as executed, as well as details of its early planting (Figure 1.20). Although the Pennsylvania Horticultural Society plan is undated, the fence shown on the plan is the single most important factor in identifying the period of the plan. The style and ornaments of the fence suggest that it is of the American Empire style (post 1810). The plan was given to the Society by Mrs. W. Moylan Lansdale and Miss Julia Binney of St. David's. They believed the plan was made by Martien Maclean, who presented the plan to their father, Horace Binney Jr. (1780-1875), son of the noted lawyer. Binney lived on the east side of Washington Square and became the first president of the Pennsylvania Horticultural Society in 1827.[28] Martien Maclean was a French gardener who is reported, although not verified, to have been employed by Joseph Bonaparte at one time.[29]

In 1968, James Francis Dallett suggested that the plan at the Pennsylvania Horticultural Society was possibly drawn by William Rush, who completed a survey of the square in 1822.[30] In his *Annals* (1899), Watson confirms that Rush completed a survey of the square at that date.[31] However, the Rush survey of Washington Square has not been located despite an extensive search of archives in Philadelphia. William Rush (1756-1833) was an American sculptor, well-known for his figure-head carvings, who

served during the Revolution as an officer in the Philadelphia militia. Joining with Charles Willson Peale (1741-1827) in 1804, he founded the Columbarium. The following year, he was also elected to the board of the Pennsylvania Academy of the Fine Arts.[32] Rush also served on Philadelphia's Watering Committee, which supervised the dealings of the Fairmount Water Works.



Figure 1.19: *Etching by Edward Williams Clay (1799-1857) showing the fashions of the day on the unpaved, circular promenade in Washington Square with a white board fence around the perimeter of the square, from Clay's satirical Life in Philadelphia Series, published by W. Simpson beginning in 1828 (The Library Company of Philadelphia).*

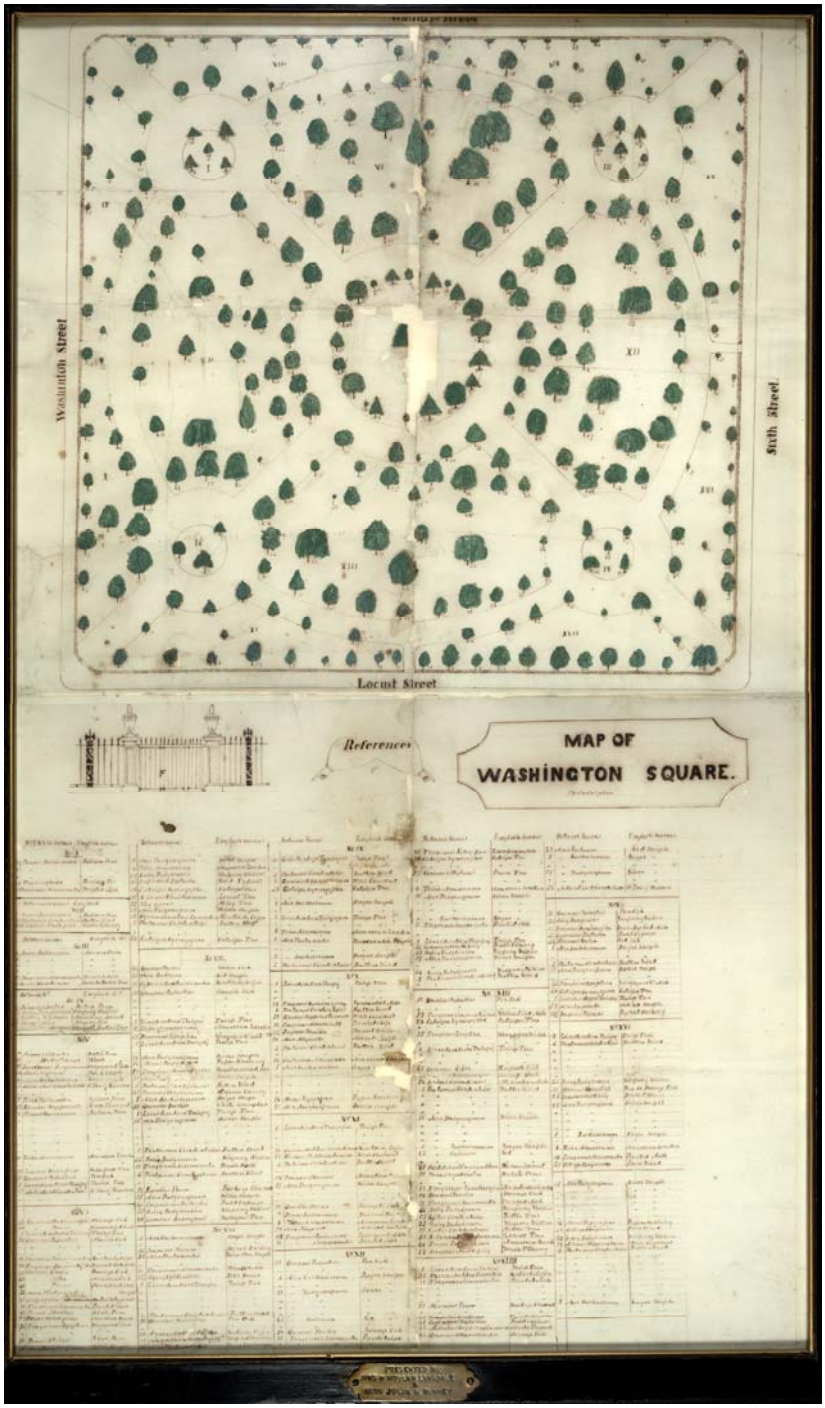


Figure 1.20: *Circa 1835-40 plan of Washington Square attributed to Martien Maclean and William Rush by different scholars, showing planting in the square. The plan was found in the papers of Horrace Binney, first president of the Pennsylvania Horticultural Society. Nicholas Wainwright, former president of the Pennsylvania Historical Society, dated the plan based on the years Binney served as president (The McLean Library, Pennsylvania Horticultural Society).*

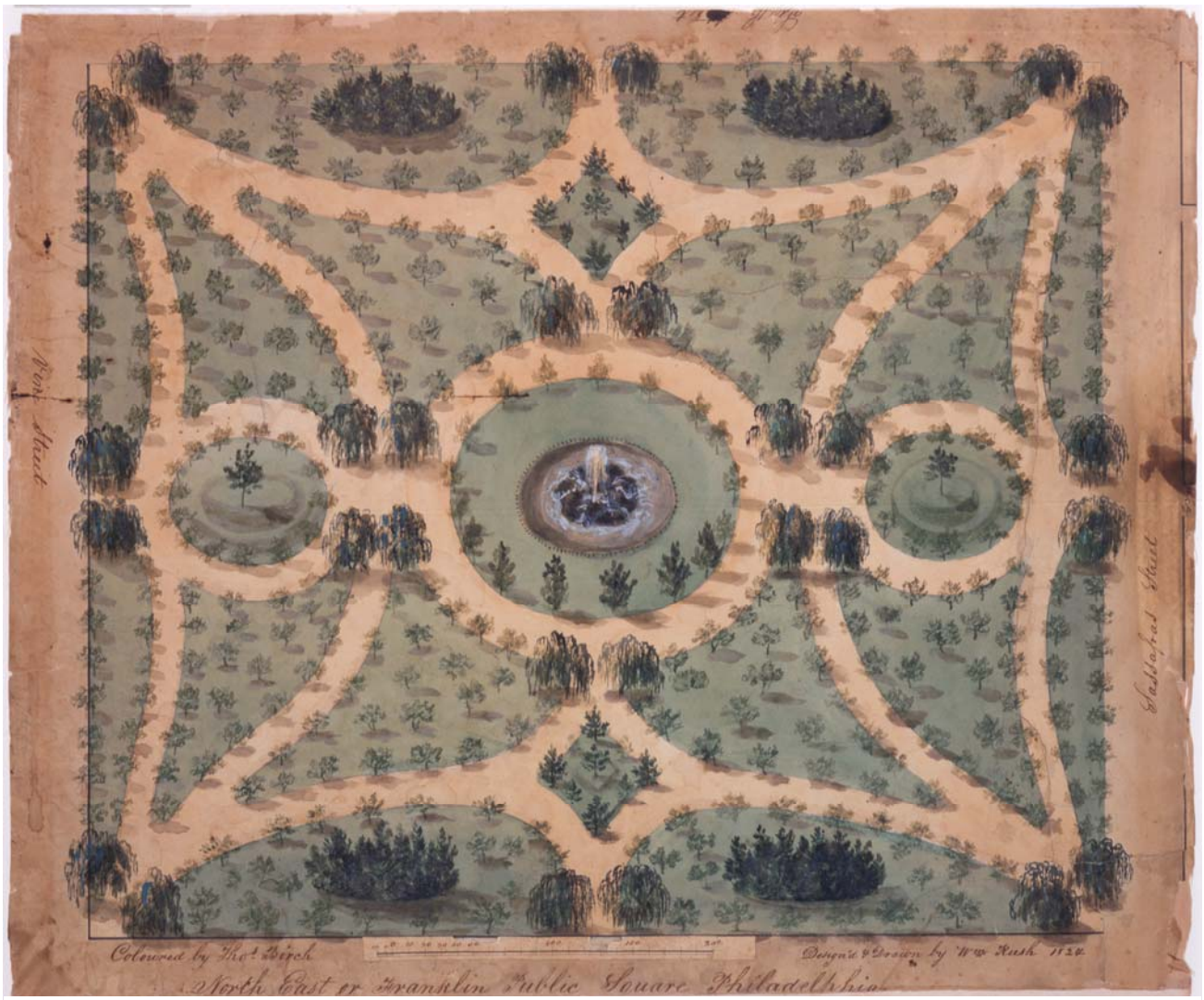


Figure 1.21: *William Rush's 1824 plan for Northeast (Franklin) Square. The square was laid-out with gravel walks and planted with trees. The fountain at its center was fed by water from the Fairmount Park Waterworks beginning in 1838 (The Library Company of Philadelphia).*

Rush completed a similar watercolor of Franklin Square in 1824, now in the collection of the Library Company of Philadelphia (Figure 1.21). The similarities and differences between the designs of Franklin Square and Washington Square at the time are both noteworthy. Both squares featured corner and mid-block entrances, trees over lawn, and a circular path alignment at their centers. Weeping Willows flanked the entrances to Franklin Square, as they did at the southwest corner of Washington Square.

However, the path layout of Franklin Square is markedly different from that of Washington Square, with only two smaller circular path intersections and two diamond-shaped intersections. Franklin Square included four distinctive clump plantings of evergreen trees, with nearly all other vegetation consisting of deciduous trees over lawn, while at the time Washington Square included a combination of deciduous and evergreen trees over lawn throughout the square. Franklin Square had a fountain at its center, while Washington Square had a simple evergreen tree planting.

In 1842, a lithograph plan of Washington Square was created based on an August survey by John B. Colahan (Figure 1.21). Born in Ireland, Colahan was a prominent member of the Philadelphia bar; he had immigrated to the United States as a young man and to work for the United States as a surveyor for the boundary line between Louisiana and Texas.[33] The inscription on the lithograph, now in the collection of the Historical Society of Pennsylvania, reads, "entered according to an act of Congress in the year 1843 by M. Schmitz [sp.] P. Kereven in the clerk's office of the District Court for the eastern district of Pa.; Surveyed Aug. 1842 by John B. Colahan C.E."[34] Patrick Kereven is listed on the plan as the chief gardener of both Washington and Independence Squares. In 1842, Kereven lived at the corner of Schuylkill Fifth Street (now Eighteenth Street) and Chestnut Street, where the *Public Ledger* reported that he hosted a public sale of plants in his garden in 1842.[35]

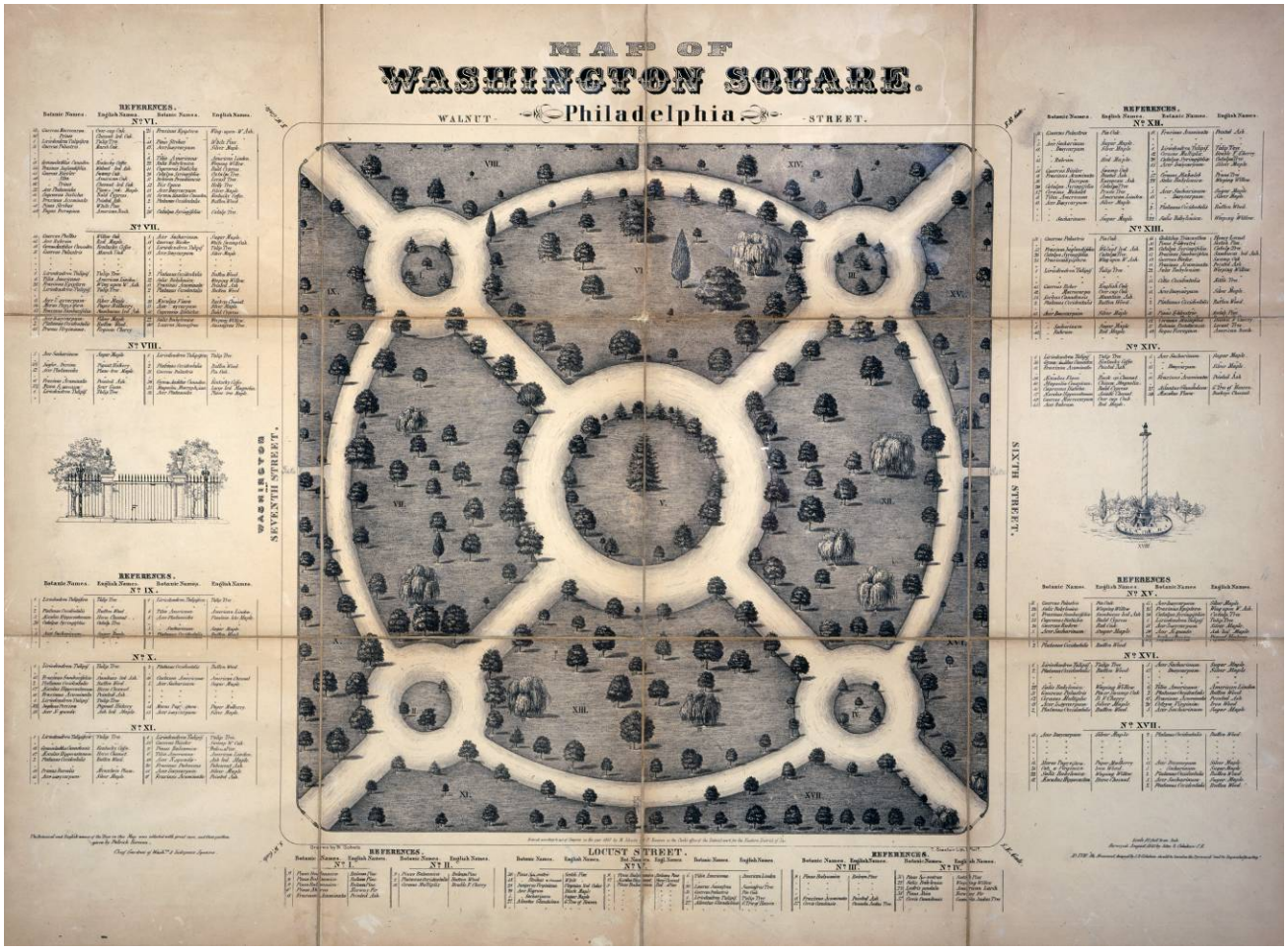


Figure 1.22: *1843 lithograph of an August 1842 survey of Washington Square by John B. Colahan entered according to an act of Congress in the year 1843 by M. Schmitz, P. Kereven in the Clerk's Office of the District Court for the Eastern District of PA. By this time, the iron fence shown at left was in place. The memorial shown at right represents a proposal by John Colahan for a monument to Washington, detail shown in Figure 1.14 (The Historical Society of Pennsylvania).*

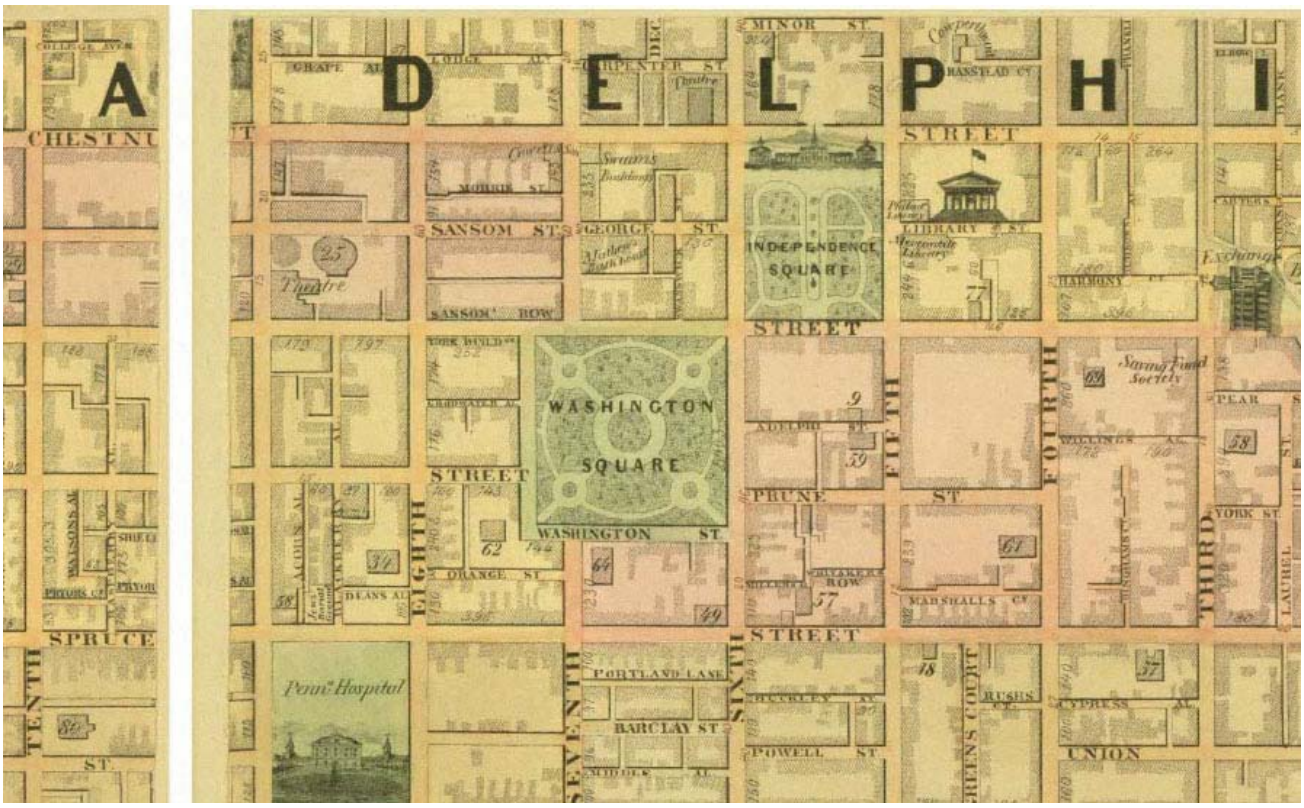


Figure 1.23: *1849 "Map of the City of Philadelphia" by J.C. Sydney, Civil Engineer & Surveyor, Published by Smith & Wistar (Historical Society of Frankford).*

The 1843 lithograph includes both a sketch of a fence, which matches the fence shown on the Pennsylvania Horticultural Society plan, and another design for a monument. The iron fence was added to the perimeter of the square in 1836-37 and is documented in place in later drawings and one photograph (Figure 1.30, circa 1870).[36] A later, 1849 "Map of the City of Philadelphia" by J.C. Sidney also shows the layout of the walks as they are indicated on the earlier plans (Figure 1.23).

A local affairs note in *The North American* from April 1843 indicates that, "The White Magnolia Tree, which is now in flower on Washington Square, near the corner of Sixth and Walnut Streets, is a most beautiful object. The Square is putting on its most attractive features, at least as far as we can judge by a peep through the iron railings, for the public at large are yet excluded from it. If the present weather should continue but a few days, it will be arrayed in all the beauty of young spring, and draw crowds of young and old to enjoy this pleasant pathway."[37]

Planting Improvements

Planting improvements first began in 1816, when the square was fenced and laid out by George Bridport.[38] By 1817, the square was densely planted by Andrew Gillespie. In the City directories for 1818-19, Gillespie is listed as having a greenhouse at Thirteenth and Pine Streets.[39] An undated (circa 1817) draft letter in George Vaux's papers to Mr. Paulson of *Paulson's Daily Advertiser* indicates, "as some of your readers may not have examined the trees in the South East public square, which are called 'paltry shrubs' by one of your correspondents, I beg leave to hand you the following list of the names and numbers of each kind already planted, and some intended to be here after added…" Vaux totaled his list at 187 specimens, 56 dead and 131

alive.[40] In a second letter to Paulson, Vaux continued, "about 200 trees have been planted of which 61 or 62 are dead. Amongst the dead are all the hickorys [*sic*] and a considerable part of the oaks. The larches have all been destroyed by an insect within the last month. The whole of the planting will be completed this fall and the following will be added, Hemlock Spruce, Balm of Gilead Fir, a further variety of oaks, Honey Locust, Italian Mulberry, Spanish & native Chestnut, Black Walnut."[41]

In 1816, Vaux also compiled a "List of Trees Proper to Be Planted in the Public Squares of Philadelphia," which included a rationale for planting the trees: "the noble trees indicated will afford sufficient shade if put in the grass in the course of the present and proceeding years…Their proper disposition in the grass and the future care of them, are points equally essential to insure [*sic*] the [ill.] of providing a place of recreation and for preserving the health of those who are to proceed the present generation."[42]

Other plant lists in George Vaux's papers are numerous, although most are undated. It should also be noted that only four of the lists specify that the trees shown are for planting in Southeast Square, listed below in bold, although all lists are included in Vaux's Washington Square Park Improvement file at the Athenæum of Philadelphia.

- An undated (circa 1816-1824) note in George Vaux's papers lists 2 Cypress trees, 4 Honey Locust, 2 Sugar Maples, 2 Striped Maple, 1 Catalpa, and 2 Ash, totaling 13 trees.[43]
- **An undated (circa 1816-24) list of trees bought at Bartram's Garden by George Vaux "to be delivered to Mr. [Andrew] Gillespie at Potters' Field" includes 1 Black Poplar, 1 Deciduous Cypress, 1 Oriental Plane Tree, 1 Sycamore Maple, 4 Sugar Maple, 1 Kentucky Coffee Tree, 1 Willow-leaved Oak, 1 European Oak, and 1 Sweet Gum, totaling 12 trees.[44]**
- An undated (circa 1816-1824) list in George Vaux's papers includes a list of plants that "may be had at Bartram's," including, "*Viburnum arboretum* (tree black haw), Balsam Poplar (tacamahae [*sic*]), *Magnolia tripetala* (umbrella tree), White Walnuts, *Euonymus atropurpureus* (burning bush), *Cornus florida* (dog wood)."[45]
- **A January 1, 1817 list of trees bought at Bartram's Garden by George Vaux included 1 *Cupressus disticha* (Bald Cypress), 5 *Acer saccharinum* (Sugar Maple), 1 *Fraxinus alba* (White Ash), 2 *Fraxinus nigra* (Black Ash), and 3 *Liquidambar styraciflua* (Sweet Gum), totaling 12 trees "to be delivered at Potters' Field."[46]**

Bartram's Gardens in West Philadelphia, was the home of American botanist John Bartram. John Bartram was born in 1699 in Darby, England to Quaker parents.[47] Carl Linnaeus, with whom Bartram corresponded, declared him to be the "greatest natural botanist in the world."[48] Bartram's sons, John and William ran the family nursery business.

- **On January 6, 1817 George Vaux paid five dollars in full to Daniel Haines for six trees delivered to Potter's Field for public use.[49]**
- A October 28, 1817 list of trees delivered from Landreth included 10 Tulip Trees, 2 White Lindens, 3 Cork Bark Oaks, 2 White Oaks, 2 Bedford Oaks, 2 Buttonwoods, 6 Hemlock Spruce, 5 White Pines, 2 Pecan Nuts, 1 Kentucky Coffee, totaling 35 trees.[50]
- An October 31, 1817 list of trees bought of Robert Carr (botanist John Bartram's grandson in-law, who maintained Bartram's Gardens after 1812) by George Vaux includes 6 Sugar Maples, 1 Sasafras, and 2 Sweet Gum, totaling 9 trees.[51]
- On December 2, 1817, Harvey Elliott offered to supply Juniper Trees at $.75 each delivered, provided a dozen of them were purchased for planting in the public squares.[52]

- An undated list of trees in George Vaux's papers includes, "Pines – two or three species (White Pine, Jersey Pitch Pine, Jersey 3 leaved Pines), China Arbor Vitae, Junipers, Red Cedars, *Kalmia latifolia* (laurel), American Ash, (white & black), Horse Chestnuts, Maples (Sugar maple & Red maple), Sweet Gum, *Amorpha fruticosa*."[53]
- **Records of the Landreth Seed Company indicate a selection of eight (8) trees "for planting in Washington Square," March 17, 1820: 2 Balm of Gilead, 2 Hemlock Spruce, 2 Linden Trees, and 2 Magnolias.[54]**
- In March 29, 1824 Mr. Anthony Finley for George Vaux Esq. bought of William Prince Isabella Grape, Isabella Grape cuttings, and White Sweet Water, or Muscadine.[55] It seems likely that these grapes were purchased for personal use.

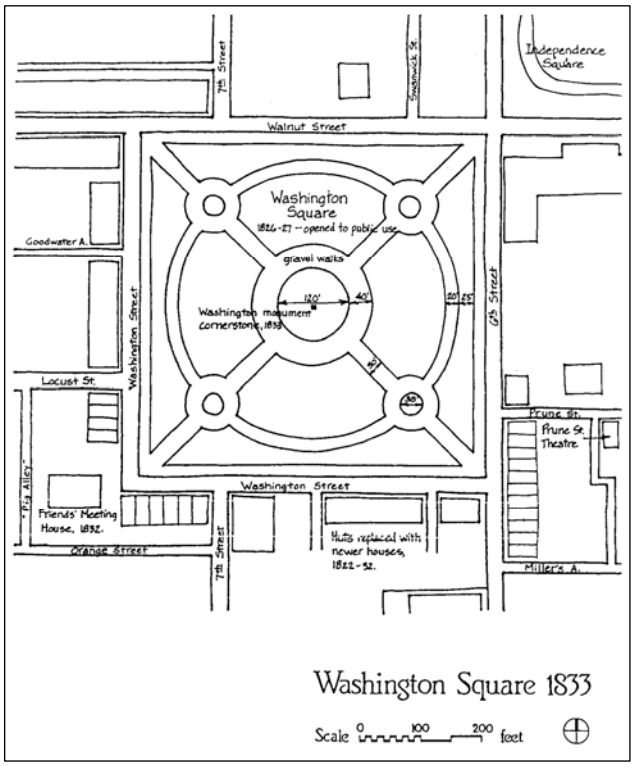


Figure 1.24: *Denise Rabzak's period diagram for Washington Square, 1833, showing gravel paths laid-out (Washington Square in Historic Society Hill: A Site Plan Chronology, 1683-1984).*

Of all of Vaux's lists, an undated "list of trees planted in the S.E. public square of Philadelphia under direction of G. Vaux – principally in 1816 & 17" is the most informative.[56] A note on the list indicates that "the 'Washington Square' was improved according to the design of George Bridport – the gardener employed was Andrew Gillespie." Trees on the list include several dead trees, as well as a Flowering Cherry from the Rocky Mountains, with a note to its association with Lewis & Clark. (For a complete list of plant material historically found in Washington Square, please see Appendix G, Analysis of Historic Plant Lists.)

Initial planting in the square was complete by July 1818, when letter to the editor of *Poulson's American Daily Advertiser* asked: "Why we are debarred from the use of Washington Square?—if it is intended merely to raise successive Crops of Grass for any particular set—very well—only as it was contemplated for a public walk, let us at least know why it is not used as such, now it is finished."[57] In 1819, it was later reported, Oaks were planted in the square, which had grown to noble specimens by 1843.[58]

After the completion of the initial planting of Washington Square, City Councils appointed Committees to superintend the improvements to Southeast Square annually from 1819 to 1829:

- October 25, 1819: Resolution that a Committee of two members from each Council be appointed to superintend improvements to Southeast Square[59]
- October 26, 1820: Joint committee selected to include from the Select Council: Messrs. Watson and Mr. Meredith; from the Common Council: Messrs. Coates and Miller[60]
- November 5, 1821: Joint committee selected to include from the Select Council: Messrs. Watson and Meredith; from the Common Council: Messrs. Coates and Miller[61]

- October 24, 1822: Joint committee selected to include from the Select Council: Messrs. Lewis and Miller; from the Common Council: Messrs. Broome and Coates[62]

- October 23, 1823: Joint committee selected to include from the Select Council: Messrs. Lewis and Miller; from the Common Council: Messrs. Coates and Percival[63] (Note that Northeast square was also funded for improvement in July 1823.[64])

- October 28, 1824: Joint committee selected to include from the Select Council: Messrs. Lewis and Miller; from the Common Council: Messrs. Percival and Linn[65]

- November 10, 1825: Joint committee selected to include from the Select Council: Messrs. Lewis and Miller; from the Common Council: Messrs. Johnson and Walmsley[66]

- October 26, 1826: Joint committee selected to include from the Select Council: Messrs. Toland and Miller; from the Common Council: Messrs. Johnson and Walmsley[67]

- October 25, 1827: Joint committee selected to include from the Select Council: Messrs. Toland and Miller; from the Common Council: Messrs. Johnson and Walmsley[68]

- October 23, 1828: Joint committee selected to include from the Select Council: Messrs. Toland and Miller; from the Common Council: Messrs. Horner and Graff[69]

- April 9, 1829: Select Council resolved that the Joint-Committees appointed to Independence, Washington, Franklin, Penn and Rittenhouse Squares be and they are hereby authorized and empowered to employ such person or persons, as they may think proper to improve and take care of the same and that they [*sic*] City Commissioners be and they are hereby authorized and required to pay all Bills which may be presented to them for labour, etc."[70] However, the Common Council did not concur and presented a counter-resolution, with which the Select Council subsequently did not concur.[71]

- October 29, 1829: Joint committee *to take charge of Washington and Rittenhouse Squares* selected to include from the Select Council: Messrs. Miller and Horn; from the Common Council: Messrs. Johnson and Walmsley[72]

An 1833 article in the *National Gazette* reported that, "When done, as the trees were generally small, their number did not appear to be sufficient and some censures were cast upon Mr. Bridport, but he objected to any change, saying that, in a few years, as the trees grew, the number would be ample."[73] Bridport's justification did not satisfy the censures, and his premature death in 1819 at the age of thirty-six left the square in the hands of its caretakers, who it seems undertook additional planting. In 1833, the *National Gazette* observed, "Those who for some years have had charge of this square do not appear to have entertained the same opinion with Mr. Bridport, but have planted over the whole of the grass plats small trees, leaving scarcely room for another one to be put down, until, from the regularity of the rows, the divisions of the square have assumed a strong resemblance to a common farm orchard."[74] By 1842, the gardeners in the square were:

> Removing a large number of European Linden Trees, which have been destroyed by worms. The removal of these trees causes a vacancy which will require some years to replace. On inquiry we find it is the intention of the Councils to replace them with trees of native growth, which are not touched by these insects. In this class are included some twenty varieties, which are unsurpassed by any other kinds for their beauty and grace.—We fear that the

> numerous rows of European Lindens which ornament our sidewalks will have to follow these in the Square.[75]

This newspaper account provides a glimpse of the advances in horticultural understanding at the time, as well as the development of what A.J. Downing would later call a "really admirable city *arboretum* of rare trees" at Washington Square.[76]

François André Michaux, French Botanist and Explorer

John Fanning Watson, who was George Vaux's co-advisor on the Common Council in 1815 for the improvements of the square indicated in his *Annals* that "trees were planted by order of City Councils under the superintendence of the eminent French botanist, Michaux."[77] A sketch of Washington Square published by N.W. Ayer & Son in 1957 also notes, "in 1815 it [Washington Square] was turned into a park, and trees were planted by a noted French botanist, François André Michaux."[78] This is contrary to all other evidence that credits George Bridport with the 1816 design of the square and Andrew Gillespie with its planting. However, although it is not well documented, it is possible that Michaux was involved with the square in the early 1800s.

Francois André Michaux (1770-1855) was a French botanist, the son of André Michaux, French botanist and explorer. On Michaux's first visit to Philadelphia in 1802, he met "Rev. Dr. Collin, Dr. Benj. S. Barton, Messrs. Vaughan, Peale, Wm. Bartram &c."[79] In the first decade of the nineteenth century, Louis XVI authorized Michaux to open a nursery in New Jersey to cultivate timber trees for the French forests from his American expedition.[80] On April 21, 1809, Michaux was elected a member of the American Philosophical Society. Throughout the remainder of his life, he maintained close ties with the organization, through correspondence with the president of the Society.[81]

A newspaper article from 1940 makes reference to the 1816 planting in Washington Square and indicates that many of the trees planted in the square belonged to John Vaughn, secretary of the American Philosophical Society, "It was about this time [1816] that the collection of trees was introduced. The late Edward Biddle said that he had heard that these trees were some which John Vaughan, secretary of the American Philosophical Society, had intended sending to his brother in England, and had asked permission to plant them temporarily in the square."[82] Several trees that were known to grow in Washington Square in the early 1800s include species first identified and named by Michaux, including *Fraxinus epiptera* and *Magnolia macrophylla*.

Washington Monument

In December 1816, Mr. Leaming of the Select Council proposed that the City's four smaller squares be named for Washington, Franklin, Penn, and Columbus, but did not indicate which squares should be known by which title.[83] (Penn and Columbus were later replaced with Logan and Rittenhouse.) A bronze statue was proposed for each square; however, the proposal to change the name was delayed by the Select Council's dissent against the Common Council.[84] An undated petition with ninety-seven signatures, which likely dates to circa 1816, was put before the Councils:

> That your memorialists [*sic*] have seen with great satisfaction the determination of your honorable bodies relative to the South East public square; particularly the enclosing of it entire, according to its patent boundaries, and the adoption of a plan for its improvement by walks and trees, so as to combine both beauty and usefulness, and tho as a late day to carry into effect the design of the enlightened founder of Philadelphia. The universal interest and approbation manifested on this subject by the citizens at large are sufficient evidence of the public wish, and it cannot be doubted

> that should the improvement be continued and completed in the manner proposed, this square will become and object highly creditable to the character of the city…They [your memorialists] therefore respectfully pray that the improvement of the said square may be completed as early as possible, and that an ordinance may be passed providing for its being kept in proper order and giving to it a suitable name. They also beg have to suggest [*sic*] as connected with the improvement of the square, and as greatly to the convenience of the citizens generally, the propriety of paving the street on its southern and western sides.[85]

By 1818, the square was identified as Washington Square in City directories and the name was used colloquially.[86] By ordinance of May 19, 1825, the name of Southeast Square was officially changed to Washington Square by the City of Philadelphia.[87]

In 1810, the Philadelphia chapter of The Society of the Cincinnati took up a collection for a monument to Washington, who was the first President General of the Society. As later reported by Architect Thomas Ustick Walter (1804-1887), there was a call for designs to be "a particular testimony of [the] veneration in which our immortal patriot is held by the citizens of this Commonwealth."[88] George Bridport's 1816 design for a monument for Washington Square (Figure 1.18) was likely in response to this call, as was sculptor John Eckstein's model for an equestrian statue to Washington (1811), according to a catalogue from the Pennsylvania Academy of Fine Arts. By 1819, the campaign's collection only totaled about $3,500.[89] Due to slow fundraising, the Society eventually hoped to have it complete by 1881, presumably in time for the 150th anniversary of George Washington's birth.[90]

In 1824, a second organization, the Washington Monument Committee headed by John Sergeant, who served in the House of Representatives from 1815 to 1823, began selling subscriptions to support the memorial.[91] The revival was perhaps spurred by the Marquis de Lafayette's visit to the City in September 1824.[92] Subscription booklet number thirty-two in the collections of the Historical Society of Pennsylvania suggests that the canvassing effort for new subscriptions to the monument were widespread; however, this booklet indicates that only one subscription was sold in South Mulberry Ward.[93] In a letter to the *National Gazette*, one citizen presented a monument concept consisting of simple marble edifice with a marble statue of Washington, as well as a building suitable for a free public reading room on the square.[94] However, on June 9, 1825, "a letter was received [by the Common Council] from John Sergeant Esq. Chairman of the Washington Monument Committee, stating that the committee had adopted the design of William Strickland, which they now exhibited for the approbation of Councils, and that they requisite authority might be granted to the committee to use the Washington Square for the purpose of its erection."[95] Architect William Stickland proposed a one hundred twenty foot monument modeled after the Choragic Monument of Thrasyllus, architect John Haviland proposed a two hundred foot obelisk, and sculptor John Abraham Chevalier submitted a design.[96] However, the Washington Monument Committee's collections were insufficient to fund the monument.

In the late 1820s or early 1830s, a third proposal arose to erect a monument in celebration of the Centennial of Washington's birth (1832), though historical records do not indicate the source of the idea. On November 12, 1829, "Mr. Duane presented a letter from Stephen Kingston relative to a statue of Washington to be placed in Washington Square with certain drawings, and specimens which was read and referred to the Committee on Washington and Rittenhouse Squares. Common Council concurred."[97] The following month, Mr. Miller presented a report from the Committee regarding

the proposal and plans from Mr. Raggi and Mr. Stephen Kingston, which was read and laid on the table.[98] Designs were also reportedly submitted by John Cresson Trautwine and Thomas Ustick Walter, who previously studied under Strickland, but neither was constructed. By the early 1830s, "the gentlemen who had charge of the business [of the monument to Washington] were so much encouraged that it was believed that, if the corner-stone of a monument was laid with public ceremonies, the people would feel assured that the structure would be built, and that there would be no trouble afterward in obtaining subscriptions."[99] On February 22, 1833, a marble corner stone was placed in the center plot at Washington Square with great ceremony, including a parade of three troops of cavalry, five companies of artillery, and ten companies of infantry. The tradesmen turned out similarly, as well as a civic procession. David Paul Brown, a prominent Philadelphia lawyer, spoke at the ceremony.[100] "The cornerstone was then, with due ceremonies, placed upon the foundation and covered up, and there has since remained, the monument never having been built."[101]

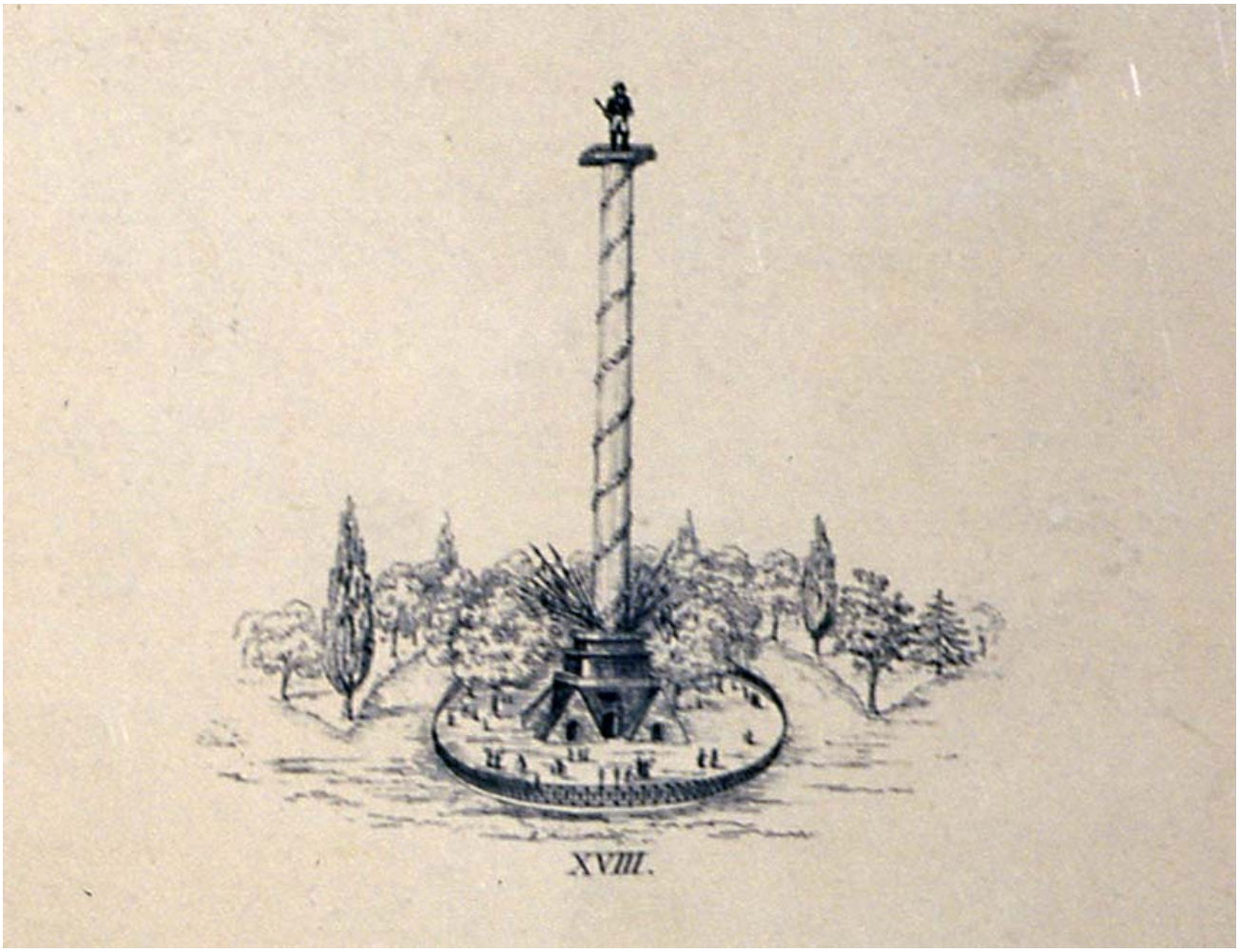


Figure 1.25: *Detail from the 1843 lithograph "Map of Washington Square" showing John Colahan's proposal for a monument to Washington. This sketch represents one of six proposals for a monument to Washington, all of which were never constructed (The Historical Society of Pennsylvania).*

The money collected in 1824 and again in 1831, was never sufficient to build the monument and instead was transferred to the Fidelity Trust Company for holding upon the death of the Hon. Joseph R. Ingersoll. It remained there as of 1857.[102]

By the time the lithograph plan of Washington Square was prepared in 1843, a design for a column on four pyramids was proposed by John B. Colahan, C.E. His design, shown on the lithograph, indicates that the monument "should be based on the pyramids and as Imperishable as they" (Figure 1.25). This project also languished, and funds collected by the Society of the Cincinnati and the Washington Monument Committee were used for the equestrian monument of George Washington dedicated in 1897 that now stands in front of the Philadelphia Museum of Art.[103]

Decorative Furnishings & Portraits of the Square, 1820s-50s

In March 1824, the Common Council received a citizen petition advocating for the construction of a fountain, for which "a sum of money had been subscribed and had referred the same to the Committee of the South East Public Square."[104] Later that year, the petition for the fountain was tabled by the Select Council, and it is not clear if this fountain was ever constructed.[105] At the time, a fountain was proposed for Franklin Square, as illustrated on William Rush's 1824 plan for the square (Figure 1.21).

Also in 1824, an editorial appeared in *The Aesculapian Register* about the disagreeable condition in which the squares of Philadelphia were kept:

> Not one more inch is paved, than is strictly called for by law, and that although the buildings or railings are carried many feet back, there is nothing but dirt intervening, wet and disagreeable after rain, and usually cut up more or less, as play places for idle boys.—Washington Square was given an illustration, and Franklin Square and the Almshouse were said to answer the same description. In winter, it was said, these squares are never cleared of the snow which falls upon the paths, but the citizens walk in slush and wet, to the manifest peril of their health; and the wooden railings are allowed to be cut, to be disfigured with dirt and paint, &c. without any attempt to punish those who thus injure the public property, &c.—***The public walks, as the State-house yard, are made places of mere disorderly amusement and idle resort; preventing their real intention, (that of affording a pleasant walk for the inhabitants,) being carried into effect, and thus actually becoming nuisances to those who live in their vicinity.***[106]

Thus, in an effort to enhance Washington Square as a popular destination for the prominent citizenry of Philadelphia, seats were ordered for the square in 1828, and that same year John Haviland was commissioned to design new lamps.[107] Reflecting lamps had been in use in the square since 1818 and, according to Joseph Jackson, continued to be used until 1837.[108] In March 1829, Councils authorized the hiring of a caretaker for each of the city's public squares.[109] On December 24, 1829, Common Council "received a petition from Sundry citizens praying that additional gates, or openings may be made into Washington Square which they had referred to the Committee on that square and in which they requested concurrence."[110] Again, it is unclear if gates were added to the perimeter fence.

On December 26, 1829, B.L.C. Wailes recorded in his journal, "rode by Washington Square laid out in gravil [*sic*] walks & planted in trees. Cedars & Pines interspersed among the larger deciduous trees."[111] In 1830, a committee of the Pennsylvania Horticultural Society described the layout of the square, which was then measured, perhaps mistakenly, at eight acres:



Figure 1.26: *Photograph of South Washington Square with the meeting house (center) and the First Presbyterian Church (left), designed by John Haviland, now the site of the Hopkinson House apartment building. The absence of a fence surrounding the square suggests that this photograph was taken in the early 1830s, prior to the completion of the iron fence. Its granite base is visible at right (Print & Picture Collection, Free Library of Philadelphia).*

> Four diagonal walks, thirty feet wide, leading to a circular plot in the centre of one hundred and twenty feet diameter; around this is a walk forty feet wide; and another circular walk twenty feet wide, extends to within twenty-five feet of the side of the square; where this walk intersects the diagonal, are circular plots thirty-five feet in diameter.
>
> Thus forming a handsome, recreative [*sic*], and interesting promenade, amongst fifty varieties of trees, seven of which are European, and forty-three native; a large portion of which are from distant parts of the Union. Many of the *Acers* are very handsome trees; as also several varieties of *Prunus*; two of these were introduced by Lewis and Clark from the Rocky Mountains, the one is conspicuous for its foliage and fruit, the other, called *sweet scented Cherry*, has very large racemose spikes of fragrant flowers, and is much admired for its beauty; the majestic *Ailanthus*, with several varieties of *Pines* and *Cypress*—all of the first and second class of trees, and admired for their foliage, flowers and shade.[112]

The Horticultural Society report continued, "these trees are in a very healthy and thriving condition, and neatly trained by Mr. Andrew Gillespie, who is a judicious arborist, and who laid out the ground about thirteen years ago [in 1817], according to a plan furnished by the late Mr. George Bridport, and under the superintendence of the Councils has had the management of it ever since. The whole is beautifully kept, and well illuminated at night with reflecting lamps till ten o'clock – all showing the correct and liberal spirit of our city."[113]

The Saturday Evening Post reported on July 17, 1830, that both Washington and Independence Squares were "ornamented with fine trees and intersected by gravel walks," in "exquisite taste," making "a scene of almost fascinating beauty."[114] Frances Trollope, also writing of the square in 1830, "here is an excellent crop of clover; but as the trees are numerous, and highly beautiful, and several commodious seats are placed beneath their shade, it is, spite of the long grass, a very agreeable retreat from heat and dust…This pretty Washington square is surrounded by houses on three sides, but (lasso!) has a prison on the fourth; it is nevertheless the nearest approach to a London square that is to be found in Philadelphia."[115] Trollope went on to reference a *Catalpa* in the square.

Despite the vast array of trees planted on the Square:

> The open ground was still leased for hay making. The public was admitted…for a stroll on the graveled walks only during the summer and autumn months…John Moss's development [on the former Walnut Street Prison property] changed all this. The men who built on his lots the late Regency and brick and marble mansions, which were the spiritual forerunners of the Rittenhouse Square brownstones, made the laws of the city. A high iron palisade fence, its gates invitingly open, replaced the wooden barricade. The Square was lighted by gas lamps. Replantings [*sic*] were made by a trained Irish gardener [Patrick Kereven, chief gardener by 1843], shared with Independence Square, in order to give focus to the foundation stone of a great projected monument to Washington.[116]

E.T. Cooke reported circa 1830 that the square was "crowded between the hours of five and six in the evening with elegantly dressed females. His greatest objection to the manner in which all the squares are laid out is the manner in which the grass is allowed to grow; and when I was in Philadelphia, labourers [*sic*] were making hay in them."[117] In June 1830 the promenade at Washington Square was growing into fashion, "about 6 o'clock of every afternoon, the Washington Square affords a beautiful display of children of all ages…The buoyant hilarity of these interesting little creatures, as they gambol and race over the smooth, clean, and shaded promenades, affords a spectacle of pure and deep interest."[118] This is a dramatic change just five years earlier, when a letter to the editor of *Poulson's Advertiser* complained that the square was kept closed and it's the beauty could not be complete without "the presence of the fair sex. Why are the ladies and their escorts prevented from making this place their morning and evening walk for exercise?"[119]

The white wooden paling fence was replaced with an iron fence set on heavy blocks of granite in 1836. On March 31, 1836, Stephen Martin and J.E. James were contracted to "Sett [*sic*] the Granite base on three Sides of Washington Square (they taking the Stone from where they now lay) in a Substantial and workmanlike manner agreeably to the directions of John Haviland Esqr. Architect and do the following work and furnish the following materials necessary for the completion of the Setting of the Said Granite Based viz."[120] The principal entrances at each corner of Washington Square were controlled with "heavy iron gates, supported by blocks of marble. The square [could] also be entered, by small gates on either [*sic*] of its four sides."[121]

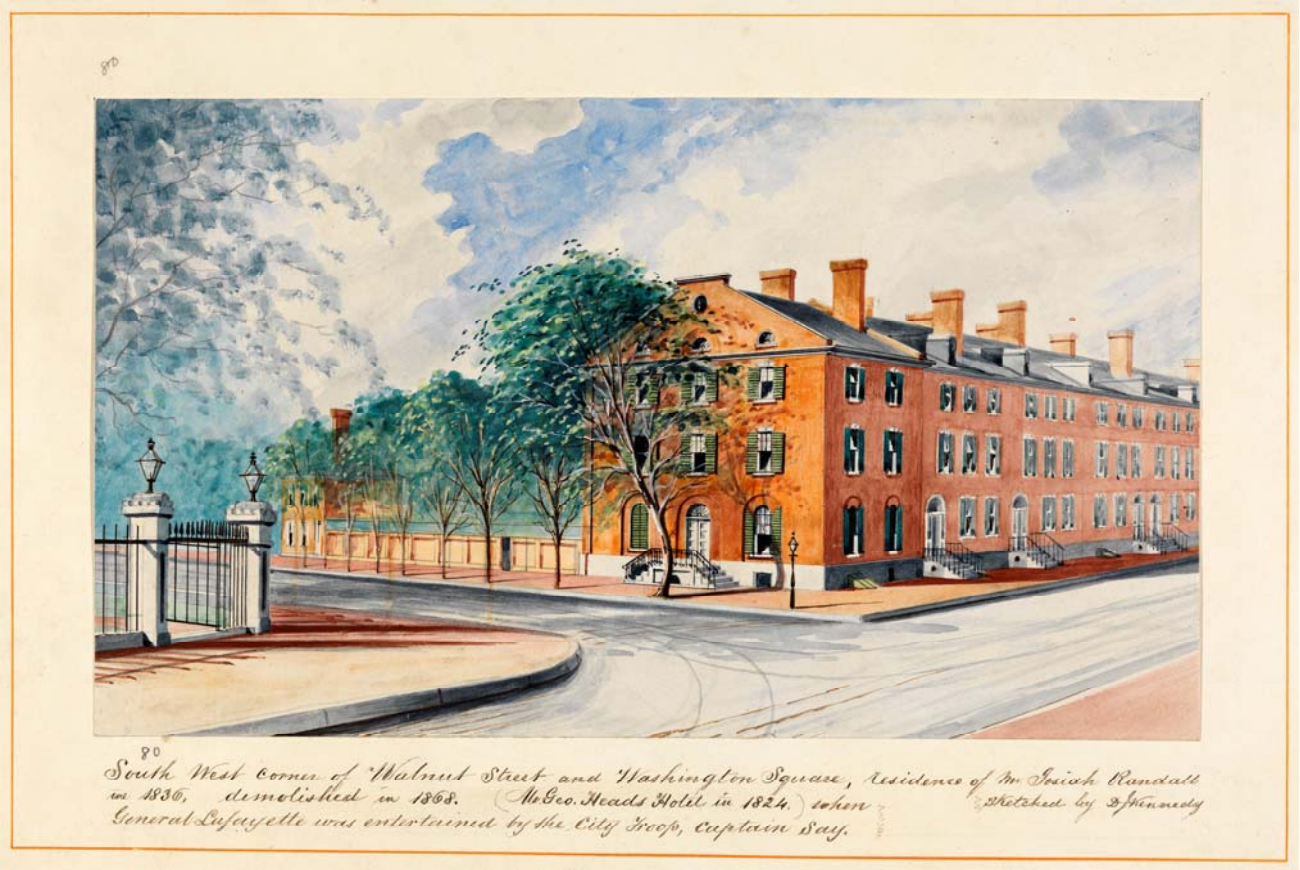


Figure 1.27: *1836 watercolor by David J. Kennedy (1816/17-1898) showing the northwest corner of Washington Square with piers and gates, as well as the residence of Josiah Randall, which was George Head's Hotel in 1824 (The Historical Society of Pennsylvania, by David J. Kennedy).*

By August 10, 1836 the fence work was not complete, and according to a letter from John Diehl of the City Property Committee to Bonney and Buch (Iron Founders, Wilmington, DE), the City Property Committee threatened to sue unless the iron fence for Washington Square was completed immediately.[122] Subsequently, on October 4, 1836, Joseph Brilsford was contracted to hang the gates required at Washington Square using brass sockets, to be completed by November 15, 1836.[123] In 1836, the iron railing enclosure cost $38,201.00.[124]

A watercolor by David Kennedy in the collection of the Historical Society of Pennsylvania shows the southwest corner of Walnut Street and Washington Square, including the residence of Mr. Josiah Randall (Figure 1.27). Kennedy, an amateur artist who came to Philadelphia in 1836, took an interest in painting and sketching the city's old buildings. His watercolor of the southwest corner of Walnut Street and Washington Square shows the new iron fence with javelin-head pickets and sectional dividers of maces protruding from sheaths and gates with piers topped with lamps. The design is confirmed by the sketch of the gates and piers shown on both the circa 1835-40 plan at the Pennsylvania Horticultural Society and the 1843 lithograph "Map of Washington Square."

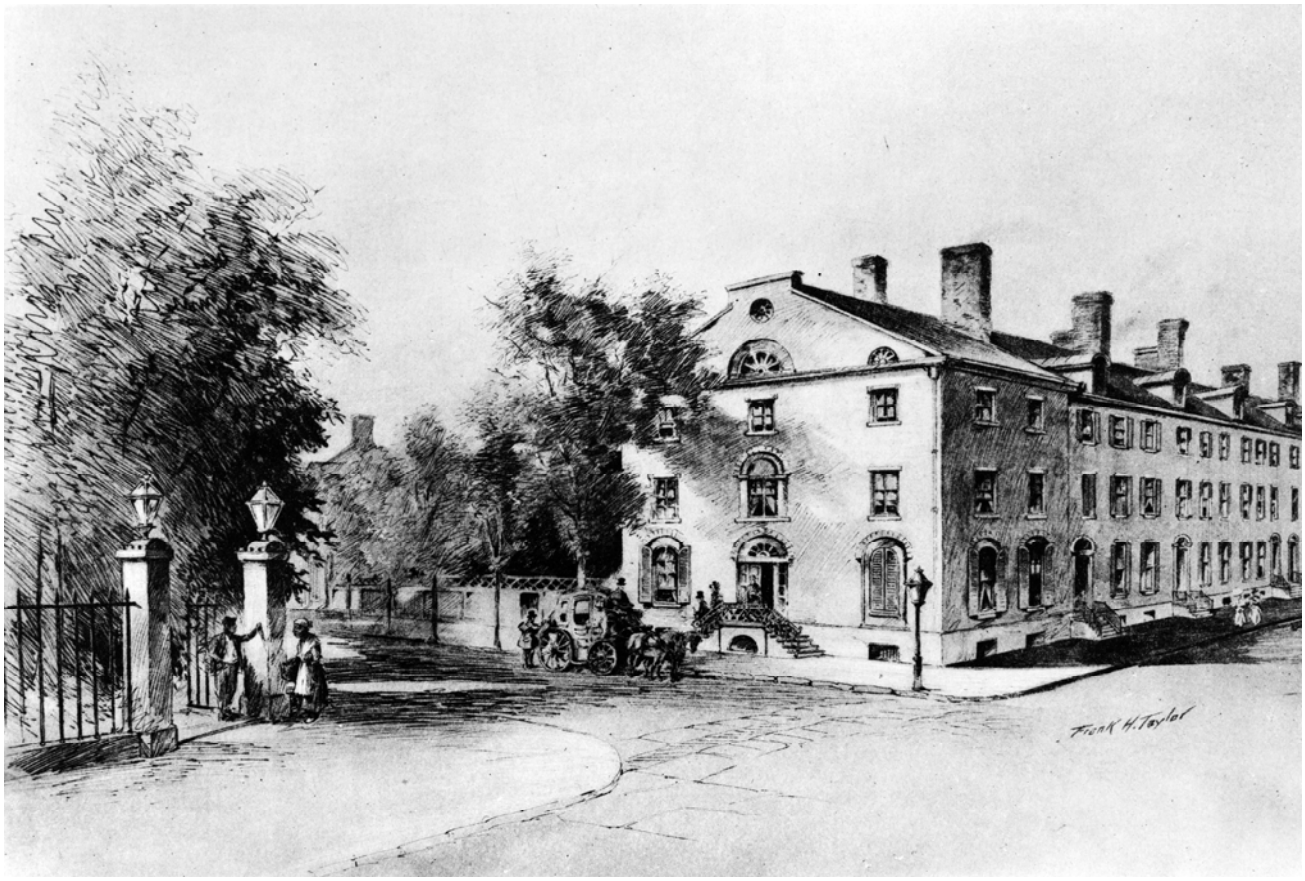


Figure 1.28: *Drawing by Frank Hamilton Taylor (1846-1926) depicting the northwest corner of Washington Square in 1861, based on David J. Kennedy's 1836 view of the same (Library of Congress, HABS File PA-1489-2).*

The earlier wishes of the citizens that an "ordinance may be passed providing for its being kept in proper order"[125] was granted when in 1836, George Hood was engaged to care for the square at a rate of fifty dollars per month. His responsibilities were to:

> Keep the Trees & Shrubbery properly trimmed and free from insects, Sweep and keep clean the walks within the foot pavements round the Square on the Outside, Rake and roll the Gravel walks, have the Lamps lit and extinguish the Same at the proper time, watch the Square from Sunrise until ten O'clock at night, mow the grass three times in each Summer at Such times as the Commissioners of the City property may direct, have the Hay taken off in proper Season and Keep the Snow from the foot pavements round the Outside of the Square and find all tools and implements necessary for the performance of those duties (excepting the Hose for watering the Trees and Grass and the Rollers for Rolling the Gravel walks at his own proper cost).[126]

While other major cities on the east coast—Baltimore, New York, and Boston—all had gas plants, the Councils were apprehensive to construct a gas plant in Philadelphia, fearing perils and inconveniences. When Samuel V. Merrick was elected councilman, he advocated for the construction of a gas works, which was constructed on Market Street near the Schuylkill and went into operation in 1836.[127] An ordinance to light Washington Square and adjacent streets with gas was passed in August 1837, and gas lamps were

installed shortly thereafter.[128] By September 1837, workmen were digging a trench in the square for the laying of gas pipes when they encountered a skeleton with purse, knife, and buckles. The deceased was thought to have died during "the pestilence," presumably the Yellow Fever epidemic of 1793.[129]

By the following year, an article appeared in the *Public Ledger and Daily Transcript*:

> We are informed by the superintendent of this beautiful public walk [Washington Square], that the recent presentment of it by the Grand Jury, as a resort of abandoned women, is erroneous in fact, and has had the effect of deterring decent people from visiting it. This presentment would characterize what it once was, but not what it has been during the present season…that respectable people of both sexes were frequenting it; but that this presentment has caused a panic among the latter…The public Squares are maintained at the public expense, as places of recreation for those who observe the laws of the land and of decency, and not for those who openly violate either.[130]

In response late the following month, "But few months have elapsed since this beautiful public walk was a nightly resort for the debauched of one sex, the abandonment of the other, and the shameless of both, and which every modest woman avoided as she would a den of infamy. It is no longer a disgrace to the city, and we can *hope* that it will be maintained in its present purified condition."[131] Daniel Bowen confirmed the following year in his *History of Philadelphia*, "it was at one time formerly, a sacred depository of the dead, and is now, one of the most ornamental spots in the City; – its walks, trees, shrubbery, &c. all preserved in high order, cannot fail to produce a most agreeable impression, especially in the summer and autumn."[132] On May 6, 1840, Sidney George Fisher recorded in his diary:

> In the afternoon read Carlyle & walked with George Smith in the Washington square, to admire the fine collection of trees there. They are of great variety and in admirable order. The lindens, maples, horse-chestnuts & oaks are the finest and the most beautiful trees I ever saw; was particularly struck by one stately horse-chestnut, now in full flower, and the willow oaks. Every year adds to their effect as they are yet young. The quantity of trees in squares & in the streets is a great charm in Philad: & combined with the cleanliness and neatness for which it is remarkable, make it the most agreeable city summer residence in the country.[133]

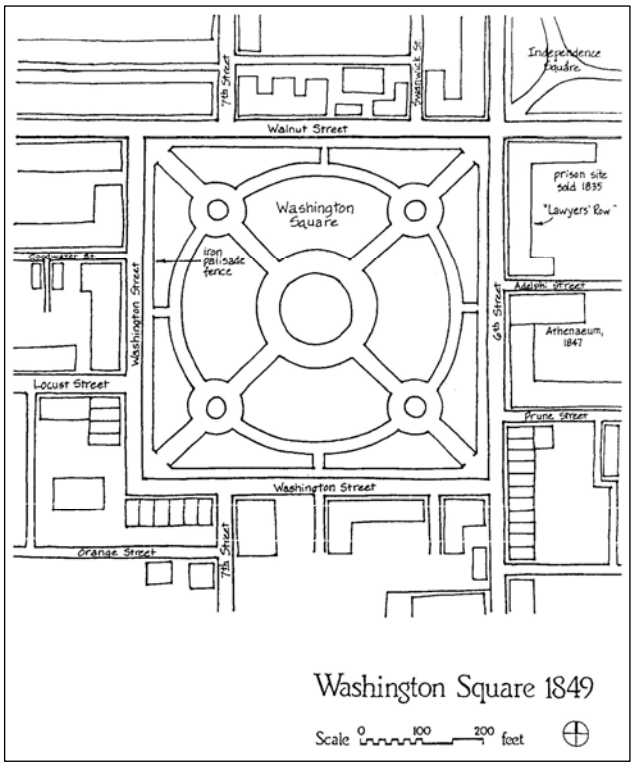


Figure 1.29: *Denise Rabzak's period diagram for Washington Square, 1849, showing gravel paths in place and the iron palisade fence complete (Washington Square in Historic Society Hill: A Site Plan Chronology, 1683-1984).*

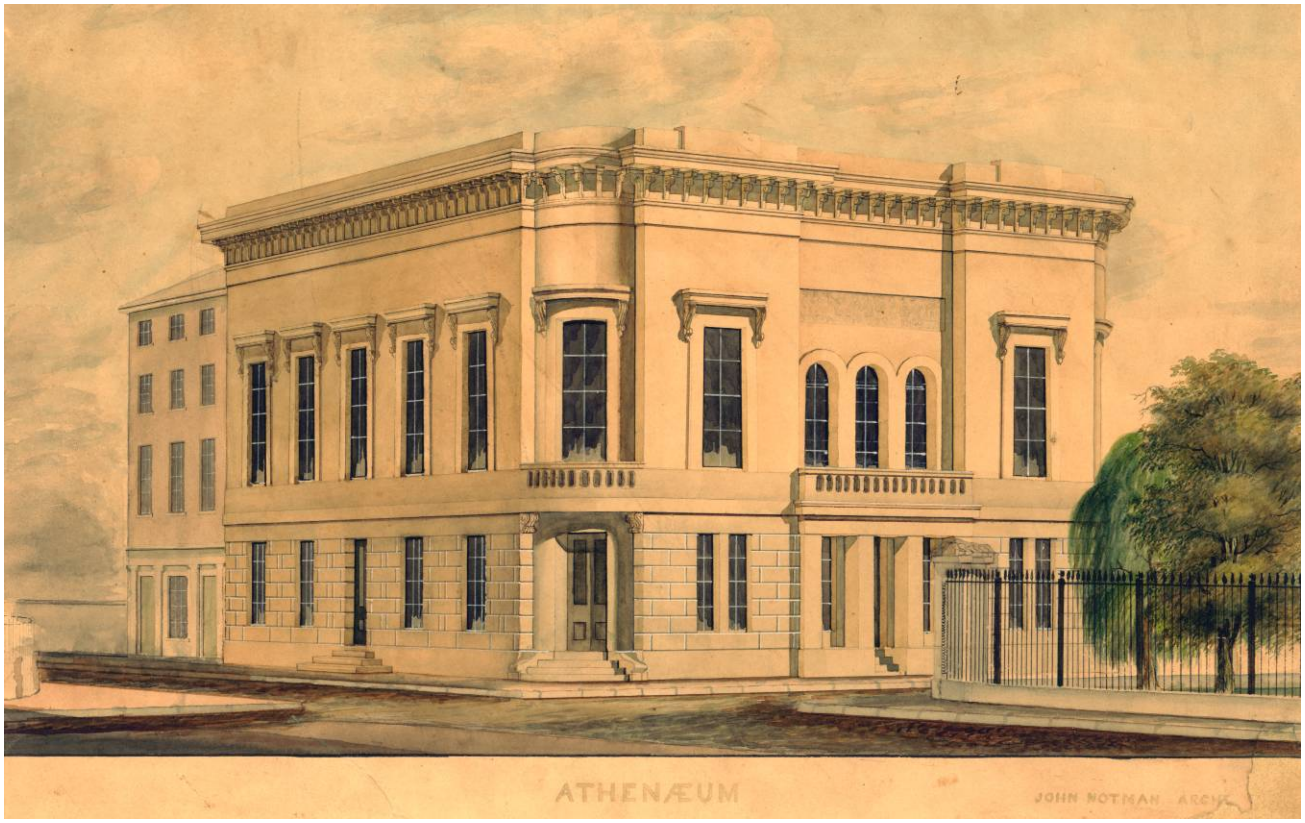


Figure 1.30: *Circa 1840-1846 competition entry for the design of the Athenaeum of Philadelphia by John Notman, including the southeast corner of Washington Square (Athenaeum of Philadelphia).*

Thomas P. Cope's diary from September 29, 1844, reported a severe rain storm in Philadelphia, "during the storm several trees were uprooted & awnings torn away. Among the uprooted are 2 large weeping willows in Washington Square."[134] A perspective watercolor of the Athenæum prepared by John Notman circa 1840-1846 confirms the presence of Weeping Willows in Washington Square. It also shows an early proposal for the Athenæum at the southwest corner of Sixth Street and South Washington Square[135] (Figure 1.30).

A portrait of the square from the *North American* recounted buttercups in the grass and "the big white flowers of the dog-wood, or the tight buds of the wild cherry" in the square. The author contrasts this scene with the brick walks and walls of the city outside the square, writing "it is hard to refuse to acknowledge the truth that such places are the lungs of great cities."[136] Andrew Jackson Downing, the great arbiter of American taste, wrote in his *Rural Essays* in 1853, "We do not forget that large and sylan [*sic*] park, with undulating surface, the Boston Common, or that really admirable city *arboretum* of rare trees, Washington Square of Philadelphia (Which probably contains more well grown specimens of different species of forest-trees, than any similar space of ground in America). Their groves are as bellowed and sacred in our eyes, as those of *Deo-dar* are to the devout Brahmins."[137]

In the wake of improvements to the square in the 1830s, the City Council was approached in 1841 by a committee of the Pennsylvania Horticultural Society, who asked that a portion of the sidewalk along the south side of Walnut Street be appropriated "as may be suitable for the purpose of establishing a stand for the exhibition and sale of Plants and Flowers."[138]

The Council approved the request and a floral market was opened on sidewalk along the northern side of Washington Square.[139]

Philadelphia Fountain Society, 1869 & Use of the Public Square

In April 1869, the Philadelphia Fountain Society erected a granite fountain on the northern side of Washington Square bordering Walnut Street. It was the first of dozens erected by the recently organized Society under the leadership of Dr. Wilson Cary Swann. The Society intended to relieve animal suffering on hot days while also curtailing drinking and promoting temperance, as many horse owners purchased alcohol at bars in exchange for 'free' water for their horses.



Figure 1.31: *Circa 1870 stereoscopic view of the Philadelphia Fountain Society's first drinking fountain on the north side of the square near Walnut and Seventh Streets. The iron fence set on granite base surrounding the square is shown beyond (The Library Company of Philadelphia).*



Figure 1.32: *1873 etching of the Philadelphia Savings Fund at the northwest corner of Washington Square, including the iron fence around the square. Note the horse drinking from the Philadelphia Fountain Society fountain at the far left of the image (The Historical Society of Pennsylvania, Campbell Collection).*

The fountain at Washington Square was designed with separate basins on the street side to provide water for horses and dogs, and a lion's head on the sidewalk side of the fountain with a spout to provide water for passersby. Decoration on the fountain included a marble tablet surmounted by a marble hemisphere with a cast iron eagle with outstretched wings. An inscription on the fountain from Proverbs 5:16 read: "Let thy fountains be dispersed abroad and rivers of water in the streets." As it was originally constructed, the fountain stood more than eight feet tall[140] (Figures 1.31 and 1.32).

At the same time, the rapid growth of Philadelphia required new public buildings, and the old buildings on Independence Square, with the exception of Independence Hall, were slated for replacement. In 1870, dissenting citizens objected to the proposed demolition of the buildings on Independence Square and two new potential sites were chosen for the Philadelphia's city offices and courts, Washington Square and Penn Square.

Concern was raised over the intended use of the public squares. In an "Opinion as to the Legality of its Use for Public Purposes" dated October 7, 1870, the signers, Henry Wharton, Eli K. Price, Wm. L. Hirst, Geo. W. Biddle, R.C. McMurtrie wrote, "that [William] Penn is more likely to have meant by his reference to the 'uses of Moorfields' the probable employment of these squares for the erection of hospitals, or other buildings of public value, such as Bedlam, rather than their use for 'lewd sports and brawls,' as he would have termed them, is clear from his character and rigid views on such subjects…" The signers concluded:

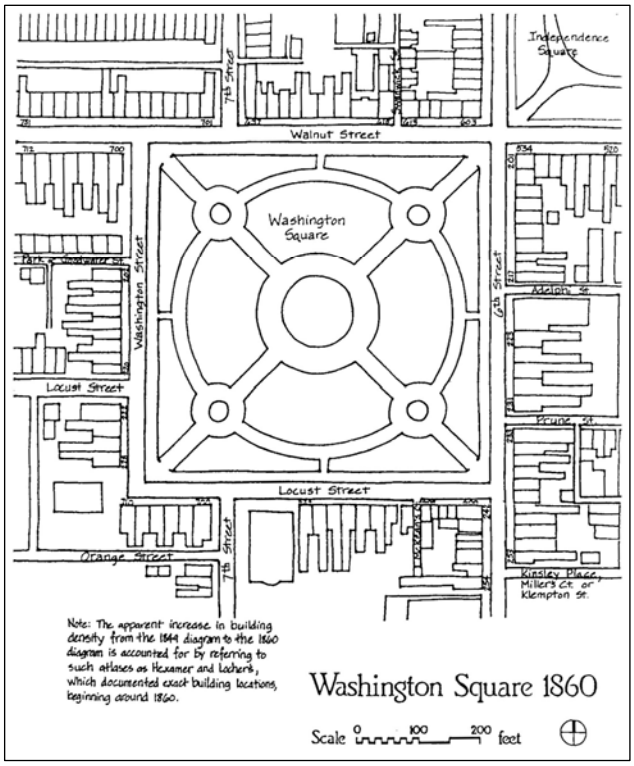


Figure 1.33: *Denise Rabzak's period diagram for Washington Square, 1860, showing greater detail in the development around the perimeter of the square as atlases such as Hexamer and Locher's were first produced in the 1860s (Washington Square in Historic Society Hill: A Site Plan Chronology, 1683-1984).*

> We are, therefore, of opinion:—
>
> That the erection of public buildings on Washington square is not inconsistent with the original dedication of the square by Penn, or its subsequent formal grant by him to the city.
>
> That even if the erection of public buildings on Washington square were inconsistent with that dedication and grant, it would be prevented only by the Commonwealth acting through its proper officers; and that the heirs of Penn could neither interfere nor have a shadow of a claim to the property by way of forfeiture of reverter [*sic*], or otherwise.
>
> And that the Legislature, in any aspect of the matter, has full power, with the consent of the citizens, as provided by the recent Act of Assembly, to authorize the use of Washington square for the erection of the public buildings.[141]

Debate over the location of the new city offices and courts was impassioned, and the decision was put to a vote. Penn Square (Center Square) won in the referendum over Washington Square, 51,623 votes to 32,885 votes.[142] Construction of the new city hall on Penn Square began in 1871.

Summary, 1815-1881

This period represents a critical point in the evolution of the purpose, use, and character of the landscape of Washington Square. In 1815, the City Councils and Commissioners began work on the improvement of Philadelphia's public squares. For Southeast Square, this began with a new white paling fence enclosure and planting. In 1816, George Bridport, English landscape painter and informal architect, who had worked with Benjamin Henry Latrobe in Washington, D.C., drew a new plan for Southeast Square that dramatically changed its character. As it was ultimately executed, the plan included an iron fence surrounding the square with diagonal gravel paths across the square that met a circular path at the center, with a second circular path, located closer to the perimeter, and additional diagonal paths and smaller circles intersecting near each of the four corners. The area between pathways was planted in grass and specimen trees under the direction of Andrew Gillespie. While the square acquired a more formal and urbane character and became the setting for promenading, the grass appears to have been maintained relatively high, as it was continuously used for hay production well into the mid-nineteenth century.

As early as 1816, the City Councils proposed renaming the site Washington Square, but this name change was not officially achieved until 1825. At that time, the desire to commemorate George Washington was paramount and both the Society of

the Cincinnati and the Washington Monument Committee endeavored to raise funds through subscriptions to support construction of a Washington monument, though neither group raised sufficient funds. Despite numerous design proposals, only a cornerstone for the monument was laid in 1833. That same year, improvements to the square included the replacement of the wood fence with an iron fence along the perimeter of the square with gates at key entrances; in 1837 the City Councils voted to illuminate the square with gas lamps.

In 1853, Andrew Jackson Downing called Washington Square a "really admirable city *arboretum* of rare trees…Which probably contains more well grown specimens of different species of forest-trees, than any similar space of ground in America."[143] There is little record of activity on the square in the early 1860s, perhaps on account of the Civil War. The last major change to the square during this period occurred in April 1869, when the Philadelphia Fountain Society erected a granite fountain on the south side of Walnut Street bordering Washington Square.

Endnotes

[1] Alice B. Lockwood. *Gardens of Colony and State*, Vol. I, New York, NY: Charles Scribner's Sons for the Garden Club of America, 1931-34, p. 335.

[2] Extract from the minutes of Select Council, Oct. 26, 1815, Thos. Bradford, Clerk Select Council, George Vaux Papers, Washington Square Park Improvement, 1816-24, Case B, Left 8, as cited in Woloson. "Bibliography," p. 6.

[3] Ibid., p. 7.

[4] Letter to Senate, n.d. (circa 1816-1824).

[5] The Vaux family's philanthropic work continued with subsequent generations, whose charitable concerns were related particularly to the education of African Americans. George Vaux Sr. (1832-1915), also referenced as the eighth, was a member of the Athenæum of Philadelphia. He served on the Joint Committee of the Three Monthly Meetings of Philadelphia at the turn of the century and wrote multiple lengthy articles for *The Friend* on the history of Quakers in Barbados. Both George Vaux Sr. and his son, George Vaux Jr. (1863-1927), served on the board of the Institute for Colored Youth (now Cheyney University). George Vaux Jr. was a lawyer and served as the Chairman of the U.S. Board of Indian Commissioners. George Vaux III (1908-1996) followed in his grandfather's footsteps and was involved in the Philadelphia Athenæum, serving as its president. He was also a member and president (1958) of the Welcome Society of Pennsylvania, a hereditary society of descendents of passengers on William Penn's ship the *Welcome*. He also served on the Richard Humphreys Foundation Distribution Committee (the later name of the Institute for Colored Youths foundation), Friends Freedmen's Association, and the Emlen Institution, a philanthropic foundation that supported children of African and Indian descent.

[6] Henry Simpson. *The Lives of Eminent Philadelphian Now Deceased*. Philadelphia, PA: William Brotherhead, 1859, p. 922.

[7] James Francis Dallett. *An Architectural View of Washington Square*. Frome, England: Butler & Tanner, 1968, p. 22.

[8] "Horticultural Society." *National Gazette* (17 September 1831): p. 3.

[9] J. Thomas Scharf and Thompson Westcott. *History of Philadelphia, 1609-1884*, Vol. III. Philadelphia, PA: L.H. Everts & Co., 1884, p. 1845.

[10] Ibid.

[11] Joseph Jackson. *Encyclopedia of Philadelphia*, Vol. IV. Harrisburg, PA: The National Historical Association, 1933, p. 1170. [HSP] and Westcott, *A History of Philadelphia*, 3: chapter CCCCLXXV, as cited in Denise R. Rabzak for the National Park Service, Independence National Historical Park. "Washington Square: A Site Plan Chronology, 1683-1984," May 1987, p. 11.

[12] W.F. Brown, ed. *Digest of Laws and Ordinances Concerning Philadelphia*, p. 193. And Dallett. *An Architectural View of Washington Square*, p. 23.

[13] "Expended on the South East Public Square 1816." Athenæum of Philadelphia, George Vaux Papers.

[14] "Expended on the South East Public Square 1817." Athenæum of Philadelphia, George Vaux Papers.

[15] Thomas Wilson. *Picture of Philadelphia, for 1824*. Philadelphia, PA: Thomas Town, 1823, p. 6.

[16] "A House in Washington Square." *Annals, Notes from The Athenæum of Philadelphia*. Vol. III, No. 3 (March 1957), p. 2.

[17] John Hebron Moore, ed. "A View of Phila., in 1829: Selections from the Journal of B.L.C. Wailes of Natchez,"1954, p. 355.

[18] "The Fountain in Franklin Square, 1839," printed by J.T. Bowen, 1839, now in the collection of the Historical Society of Pennsylvania, as illustrated in Nicholas Wainwright. *Philadelphia in the Romantic Age of Lithography*. Philadelphia, PA: Historical Society of Pennsylvania, 1958.

[19] Minutes of the Common Council-June 19, 1821-Sept. 30, 1830, p. 187, as cited in Woloson. "Bibliography," p. 30.

[20] Eleanor H. Gustafson, "George Bridport." *Magazine Antiques*. (May 2006).

[21] Jeffrey A. Cohen, et al. *Drawing Toward Building: Philadelphia Architectural Graphics, 1732-1986*, Philadelphia, PA: University of Pennsylvania Press, 1986, p. 65.

[22] George C. Groce and David H. Wallace. *The New-York Historical Society's Dictionary of Artists in America, 1564-1860*. New Haven: Yale University Press, 1957, p. 80-81.

[23] Gustafson. "George Bridport."

[24] Groce and Wallace. *The New-York Historical Society's Dictionary of Artists*, p. 80-81.

[25] The First Presbyterian Church was demolished in 1939.

[26] Cohen, et al. *Drawing Toward Building*, p. 65.

[27] George Bridport. Proposed Plan and proposed elevation of Washington Square. Library Company of Philadelphia, 7540 F-17.

[28] "Old Map Shows Original Planting in Famed Square, Presented to Hort. Society by 2 Society Women." n.p. n.d, article. From Rabzak's Athenaeum of Philadelphia research notes at Independence National Historical Park, Box 1 of 1.

[29] Arthur M. Kennedy. "Philadelphia's Washington Square: An Address Delivered by Arthur M. Kennedy before the Germantown Historical Society, February 17, 1942," p. 10.

[30] Dallett. *An Architectural View of Washington Square*, p. 23, citing Carroll Frey. *Philadelphia's Washington Square*. Philadelphia, PA: The Penn Mutual Life Insurance Company, 1952, p. 11.

[31] Watson. *Annals of Philadelphia* Vol. III (1899), p. 230.

[32] Richard Miller. "Rush, William," in Gerard C. Wertkin, ed. *Encyclopedia of American Folk Art*. New York, NY: Routledge, 2004, pp. 445-446.

[33] "Obituary, John B. Colahan." *The New York Times*, 26 March 1892.

[34] John B. Colahan. "Map of Washington Square, Philadelphia," August 1842, entered according to an act of Congress in the year 1843 by M. Schmitz, P. Kereven in the Clerk's Office of the District Court for the Eastern District of PA.

[35] [No headline, advertisement, "To the lover of fruit and flowers…"]. *Public Ledger* 13: 33 (27 April 1842): p. 3.

[36] "History of the City's Oldest House," *Evening Bulletin*, 25 February 1949. Free Library of Philadelphia, Castner Scrapbooks on microfilm. Reel 2, vol. 18, p. 33.

[37] "Local Affairs." *The North American* 5:1271 (26 April 1843): p. 2.

[38] Jackson. *Encyclopedia* IV, p. 1170.

[39] Dallett. *An Architectural View of Washington Square*, p. 37.

[40] Trees already planted included: 18 Tulip Poplars, 19 Lindens , 19 Ash Leafed Maples, 5 Sugar Maples, 2 Striped Maples, 4 Sycamore Maples, 3 Scarlet Flowering Maples, 24 Oaks of 7 varieties, 6 Horse Chestnut, 4 Gums, 6 Black & White Ash, 6 Larches, 3 Buttonwoods, 2 Aspen, 2 White & Red Birch, 7 Cucumber trees, 6 White & Red Locust, 4 Catalpa, 5 Hickory, 4 Cypress, 9 White & Yellow Pine, 6 Scotch Fir, 5 Kentucky Coffee Tree, 1 White Walnut, 4 Illinois Hickory, 2 Pride of China, 2 Mountain Ash, 6 Franklinia, and 3 Fringe Trees. A note that follows indicates an additional 3 Wild Cherry. George Vaux to Mr. Poulson, n.d. (circa 1817).

[41] George Vaux to Mr. Poulson, n.d. (circa 1817). Athenæum of Philadelphia, George Vaux Papers.

[42] Trees on the list include: *Abies canadensis* (Hemlock Spruce), *Acer rubrum* (Red Flowering Maple), *Acer nigrum* (Black Sugar Maple), *Acer saccharinum* (Sugar Maple), *Asimina triloba* (Pawpaw), *Betula populifolia* (White Birch), *Betula rubra* (Red Birch), *Betula lenta* (Back Birch), *Bignonia catalpa* (Catalpa), *Castaea vesca* (Chestnut), *Carpinus americana* (Hopbeam), *Cornus florida* (white & red flowers), *Cupressus dichola* (Cypress), *Cupressus thyoides* (White Cedar), *Celtis occidentalis* (Nettle Tree), *Celtis cerafifolia* (Hackberry), *Diospyros virginiana* (Persimmon), *Aesculus hippocastanum* (Horse Chestnut), *Fagus ferruginea* (White Beech), *Fagus tomentosa* (Red Ash), *Fagus americana* (White Ash), *Gordonia franklinia* (Franklinia), *Gleditsia triacanthos* (Locust), *Juglans cathartica* (Butternut), *Larix americana* (American Larch), *Liquidambar styraciflua* (Sweet Gum), *Liriodendron tulipifera* (Poplar or Tulip Tree), *Magnolia glauca* (Swamp Laurel), *Magnolia grandiflora* (Big Laurel), *Magnolia acuminata* (Cucumber Tree), *Magnolia tripetala* (Umbrella Tree), *Malus coronaria* (Crab Apple), *Nyssa sylvatica* (Black Gum), *Pavia lutea* [*sic*] (Buck Eye), *Populus tremuloides* (Aspen Leaf), *Pinus rigida* (Pitch Pine), *Pinus serotina* (Threeleaved Pine), *Pinus strobus* (White Pine), *Pinus balsamea* (Silver Fir), *Pinus canadensis* (Hemlock Pine), *Pinus palustris* (Longleaved Pine), *Quercus alba* (White Oak), *Quercus Pinus palustris* [*sic*] (Chestnut White Oak), *Quercus ferrugina* (Black Jack), *Quercus falcata* (Spanish Oak), *Quercus* [ill., *tinctoria*?] (Black Oak), *Robinia pseudoacacia* (White Flowering Locust), *Ulmus americana* (American Elm), *Ulmus campestris* (English Elm), *Ulmus aspera* (Slippery Elm), *Thuya occidentalis* (American Arborvitae), *Tilia americana* (Basswood), and *Tilia alba* (White Lime). Additional trees include: Coffee Tree, Flowering Cherry, Mountain Ash, Eastern Plane Tree, Ash-leafed Maple, Black Poplar, Pecan or Illinoise [*sic*] Nut, Fringe Tree, Hickory, Buttonwood, Cork-barked White Oak, European Oak, Willow-leafed Oak, Barren Oak, Pride of China, Striped Maple, and Scotch Fir. "List of Trees Proper to be Planted in the Public Squares of Philadelphia, 1816." Athenæum of Philadelphia, George Vaux Papers.

[43] List of trees, n.d. (circa 1816-1824). Athenæum of Philadelphia, George Vaux Papers.

[44] List of trees, n.d. (circa 1816-24). Athenæum of Philadelphia, George Vaux Papers.

[45] List of plants that may be had at Bartram's, n.d. (circa 1816-1824). Athenæum of Philadelphia, George Vaux Papers.

[46] List of trees, 1 January 1817. Athenæum of Philadelphia, George Vaux Papers.

[47] George Barton. *Little Journeys Around Old Philadelphia*. Philadelphia, PA: Peter Reilly Company, 1926, p. 176.

[48] Ibid., p. 177.

[49] Receipt of George Vaux, 6 January 1817. Athenæum of Philadelphia, George Vaux Papers.

[50] List of trees, 28 October 1817. Athenæum of Philadelphia, George Vaux Papers.

[51] List of, receipt for trees, 31 October 1817. Athenæum of Philadelphia, George Vaux Papers.

[52] Harvey Elliott. Offer of trees. 2 December 1817. ATH, George Vaux Papers.

[53] Untitled, undated list of trees. ATH, George Vaux Papers.

[54] Brief of "Some Interesting Early Landreth Sales," Compiled 4/7/58 by D. Landreth Seed Company. NPS, Independence NHP card files.

[55] Receipt from Linnaean Botanic Garden, Flushing, L.I., New York, 29 March 1824. ATH, George Vaux Papers.

[56] The list of trees planted in the Southeast Square in 1816 and 1817 includes: Red Flowering Maple, Black Sugar Maple, White Sugar Maple, Ash-leafed Maple, Silver-leafed Maple, Striped Maple (dead), Sycamore Maple, Catalpa, Bald Cypress, Cedar, Horse Chestnut, Buck-eye, Spanish Chestnut, White Ash, Black Ash, Franklinia (dead), Lyburnum [*sic.*] (dead), Butternut, Native Larch (dead), Foreign Larch (dead), Tulip Poplar, White Oak, Deciduous Cork-barked Oak, European Oak, Black Oak, Barren Oak (dead), Spanish Oak, Chestnut Oak, Yellow Oak, Willow-leafed Oak, Bedford Oak, Swamp or Pin Oak, Native Linden, Foreign Linden, Coffee Tree of Kentucky, Flowering Cherry from the Rocky Mountains (Lewis & Clark), Native Wild Cherry, Buttonwood or Plane-tree, Mountain Ash, Pecan or Illinoise [*sic.*] Hickory (dead), White Locust, Red Locust, Honey Locust, Dogwood (dead), Aspen, European Sycamore, Paper Mulberry, Silver Pine, Scotch Fir, Balsam of Gilead, Spruce (dead), Weeping Willow, Pitch Pine (dead), Nettle Tree, Judas Tree, Double Flowering Cherry, Fringe-tree, Pride of China (dead), Cotton-tree or George's [ill.], Hickory (dead), Cucumber Tree (dead), Gum [ill.] (dead), and Sassafras (dead). "List of trees planted in the S.E. public square of Philadelphia under direction of G. Vaux – principally in 1816 & 17," 1 January 1817. Athenæum of Philadelphia, George Vaux Papers.

[57] "Communication." *Poulson's American Daily Advertiser* XLVII: 12992 (14 July 1818): p. 3.

[58] "For the North American, The Academy of Fine Arts." *The North American* 5:1416 (13 October 1843): p. 2.

[59] Minutes of the Common Council Vol. 5- March 25, 1819-Oct. 3, 1823, p. 44, as cited in Woloson. "Bibliography," p. 28.

[60] Minutes of the Common Council Vol. 5- March 25, 1819-Oct. 3, 1823, p. 150, as cited in Woloson. "Bibliography," p. 29.

[61] Minutes of the Select Council- June 19, 1821-Sept. 30, 1830, p. 22, as cited in Woloson. "Bibliography," p. 29.

[62] Minutes of the Common Council Vol. 5- March 25, 1819-Oct. 3, 1823, p. 342, as cited in Woloson. "Bibliography," p. 29.

[63] Minutes of the Select Council- June 19, 1821-Sept. 30, 1830, p. 171, as cited in Woloson. "Bibliography," p. 30.

[64] Minutes of the Select Council- June 19, 1821-Sept. 30, 1830, p. 150, as cited in Woloson. "Bibliography," p. 30.

[65] Minutes of the Select Council- June 19, 1821-Sept. 30, 1830, p. 237, as cited in Woloson. "Bibliography," p. 30.

[66] Minutes of the Select Council- June 19, 1821-Sept. 30, 1830, p. 314, as cited in Woloson. "Bibliography," p. 30.

[67] Minutes of the Select Council- June 19, 1821-Sept. 30, 1830, p. 375, as cited in Woloson. "Bibliography," p. 30.

[68] Minutes of the Select Council- June 19, 1821-Sept. 30, 1830, p. 449, as cited in Woloson. "Bibliography," p. 31.

[69] Minutes of the Select Council- June 19, 1821-Sept. 30, 1830, p. 523, as cited in Woloson. "Bibliography," p. 31.

[70] Minutes of the Select Council- June 19, 1821-Sept. 30, 1830, p. 562, as cited in Woloson. "Bibliography," p. 31.

[71] Minutes of the Select Council- June 19, 1821-Sept. 30, 1830, p. 565, as cited in Woloson. "Bibliography," p. 31.

[72] Minutes of the Select Council- June 19, 1821-Sept. 30, 1830, p. 605, as cited in Woloson. "Bibliography," p. 31.

[73] "One Hundred Years Ago." *National Gazette*, 10 February 1833. American Philosophical Society, Horace Wells Sellers Collection.

[74] Ibid.

[75] "Washington Square." *The North American and Daily Advertiser* 3:921 (11 March 1842): p. 2.

[76] Andrew Jackson Downing. *Rural Essays.* New York, New York: Putnams, 1853, p. 305.

[77] John F. Watson, rev. by Willis P. Hazard. *Annals of Philadelphia and Pennsylvania in the Olden Time*, Volume III. Philadelphia, Pennsylvania: Edwin S. Stuart, 1899, p. 229.

[78] *Washington Square*. N.W. Ayer & Son, 1957, p. 8.

[79] Andrew Jackson Downing. "Biographical Memoir of the Late F.A. Michaux. In *The Horticulturist, and Journal of Rural Art and Rural Taste*, Vol. 12. Philadelphia, PA: Robert Pearsall Smith, 1857, pp. 502-503.

[80] Ibid., p. 549.

[81] Upon his death in 1855, Michaux left $8,000 to the Society.

[82] Joseph Jackson. "Our Town: Trees in Washington Square." *Evening Public Ledger*, 11 September 1940.

[83] Scharf and Westcott. *History of Philadelphia,* Vol. III, p. 1845.

[84] Ibid.

[85] "Petition to improve Washington Square," Peale-Sellers Papers B/P31, ca. 1830, as cited in Woloson. "Bibliography," pp. 3-4.

[86] Cohen, et al. *Drawing Toward Building*, p. 66.

[87] William Findlay Brown and Ira Jewell Williams, comp. *A Digest of Laws and Ordinances Concerning Philadelphia*, Philadelphia, PA: J.L.H. Bayne, 1905, p. 194.

[88] As quoted in Cohen. *Drawing Toward Building,* p. 66.

[89] Cohen, et al. *Drawing Toward Building,* p. 66.

[90] Watson. *Watson's Annals of Philadelphia and Pennsylvania*, 1899, p. 230.

[91] The complete Committee was comprised of John Sargent, Horace Binney, Richard Dale, Stephen Girard, Philip S. Physick, William Jackson, General John Steele, Joseph Reed, David Corry, Charles Chauncey, Paul Beck Jr., General Thomas Cadwalader, Joseph R. Ingersoll, and Clement C. Biddle. "Washington Monument." *National Gazette* (5 October 1824).

[92] Cohen, et al. *Drawing Toward Building,* p. 64.

[93] "Subscription to the Washington Monument in Washington Square," 1824. [HSP] The booklet reads: "this is to certify, That James [ill.] and Daniel Knight and Robert Ratston Junior are authorized to collect subscriptions for the erection of a Monument to the memory of Washington, in the Washington Square, agreeably to the resolutions of a meeting of citizens held at the Coffee House, on the first day of October, 1824."

[94] "The Washington Monument." *National Gazette* (11 November 1824): p. 4.

[95] Minutes of the Common Council-June 19, 1821-Sept. 30, 1830, p. 289, as cited in Woloson. "Bibliography," p. 30.

[96] Cohen, et al. *Drawing Toward Building,* p. 67. The three designs were exhibited at the Pennsylvania Academy of the Fine Arts in 1826, 1825, and 1827, respectively.

[97] Minutes of the Select Council- June 19, 1821-Sept. 30, 1830, p. 609, as cited in Woloson. "Bibliography," p. 31.

[98] Minutes of the Select Council- June 19, 1821-Sept. 30, 1830, p. 615, as cited in Woloson. "Bibliography," p. 32.

[99] Scharf and Westcott. *History of Philadelphia,* Vol. III, p. 1846.

[100] James Grant Wilson and John Fiske, eds. *Appleton's Cyclopedia of American Biography, Vol. 1.* New York, NY: D. Appleton & Company, 1888, p. 398.

[101] Scharf and Westcott. *History of Philadelphia,* Vol. III, p. 1846.

[102] Watson. *Watson's Annals of Philadelphia and Pennsylvania*, 1899, p. 230.

[103] Cohen, et al. *Drawing Toward Building,* p. 67.

[104] Minutes of the Common Council-June 19, 1821-Sept. 30, 1830, p. 196, as cited in Woloson. "Bibliography," p. 30.

[105] Minutes of the Select Council- June 19, 1821- Sept. 30, 1830, p. 222, as cited in Woloson. "Bibliography," p. 30.

[106] [No title]. *The Aesculapian Register* 1:2 (24 June 1824): p. 14.

[107] Dallett. *An Architectural View of Washington Square*, p. 23, citing *Public Ledger*, issue of June 10, 1825, and Rabzak. "Site Plan Chronology," p. 12, citing an untitled article.

[108] Jackson. *Encyclopedia* IV, p. 1170.

[109] March 26, 1829 in Hazard's *Register*, III, p. 221, as cited in Anna Coxe Toogood, Historian, National Park Service, Independence National Historical Park. "Cultural Landscape Report, Independence Square, Volume One, Historical Narrative," 2004, p. 184.

[110] Minutes of the Common Council-June 19, 1821-Sept. 30, 1830, p. 620, as cited in Woloson. "Bibliography," p. 32.

[111] Moore, ed. "A View of Phila., in 1829," p. 355.

[112] *Report of the Committee Appointed by the Horticultural Society of Pennsylvania, for Visiting the Nurseries and Gardens in the Vicinity of Philadelphia, July 13th, 1830,* Philadelphia: Wm. F. Geddes, 1831, p. 15.

[113] *Report of the Committee Appointed by the Horticultural Society of Pennsylvania*, p.15.

[114] *The Saturday Evening Post* (17 July 1830), as quoted in Toogood, "Cultural Landscape Report, Independence Square," p. 184.

[115] Frances Trollope. *Domestic Manners of the Americans*, New York, NY: Dodd, Mead & Company, 1901, pp. 80-81.

[116] "A House in Washington Square." *Annals, Notes from The Athenæum of Philadelphia*. Vol. III, No. 3 (March 1957), p. 2.

[117] E.T. Coke. *A Subaltern's Furlough*, Vol. I. New York, NY: J. & J. Harper, 1833, p. 45.

[118] "Communication." *National Gazette* (1 June 1830): p. 1.

[119] *Poulson's American Daily Advertiser*, 10 June 1825 as cited in Dallett. *An Architectural View of Washington Square*, p. 23.

[120] City Council, Committee City Property, Agreements, 1834-1855, p. 3.

[121] Daniel Bowen. *A History of Philadelphia*. Philadelphia: Daniel Bowen, 1839, pp.186-87, as cited in Woloson. "Bibliography," p. 49.

[122] John Diehl to Bonney and Buch (Iron Founders, Wilmington, DE), 10 August 1836, as cited in Woloson. "Bibliography," p. 4.

[123] City Council, Committee City Property, Agreements, 1834-1855, pp. 74-5.

[124] *Philadelphia Inquirer*, ca. 1849, Poulson's Scrapbooks of Phila. History, vol. 6, pp. 4-5, as cited in Woloson. "Bibliography," p. 50.

[125] "Petition to improve Washington Square," Peale-Sellers Papers, c. 1830, as cited in Woloson. "Bibliography," pp. 3-4.

[126] City Council, Committee City Property, Agreements, 1834-1855, MSS., Phila. Archives, p. 1.

[127] Nicholas B. Wainwright. "The Age of Nicholas Biddle, 1825-1841," in Russell F. Weigley, ed. *Philadelphia, A 300-Year History*. New York, NY: W.W. Norton & Company, 1982, p. 285.

[128] "Proceedings of City Councils." *National Gazette* (5 September 1837): p. 3. And Scharf and Westcott. *History of Philadelphia,* Vol. III, p. 1846.

[129] "Washington Square." *National Gazette* (23 September 1837): p. 2.

[130] "Washington Square." *Public Ledger and Daily Transcript*. 19 July 1838, p. 2, col. 2.

[131] "Washington Square." *Public Ledger and Daily Transcript*. 29 August 1838, p. 2, col. 4.

[132] Bowen. *A History of Philadelphia,* p. 186, as cited in Woloson. "Bibliography," p. 49.

[133] "Diaries of Sidney George Fisher, 1839-1840." *Pennsylvania Magazine of History and Biography*, Vol. 77, No. 1 (Jan. 1953): 89.

[134] Thomas P. Cope Diary, v. 7, 1844, pp. 81-82.

[135] John Notman. Athenæum competition entry, circa 1840-1846.

[136] "Philadelphia. Sights from a Steeple." *North American* 6:1795 (3 January 1845): p. 2.

[137] Andrew Jackson Downing. *Rural Essays.* New York, New York: Putnams, 1853, p. 305.

[138] *Transactions of the Pennsylvania Horticultural Society*. Philadelphia, PA: William Stavely & Co., 1839-1844.

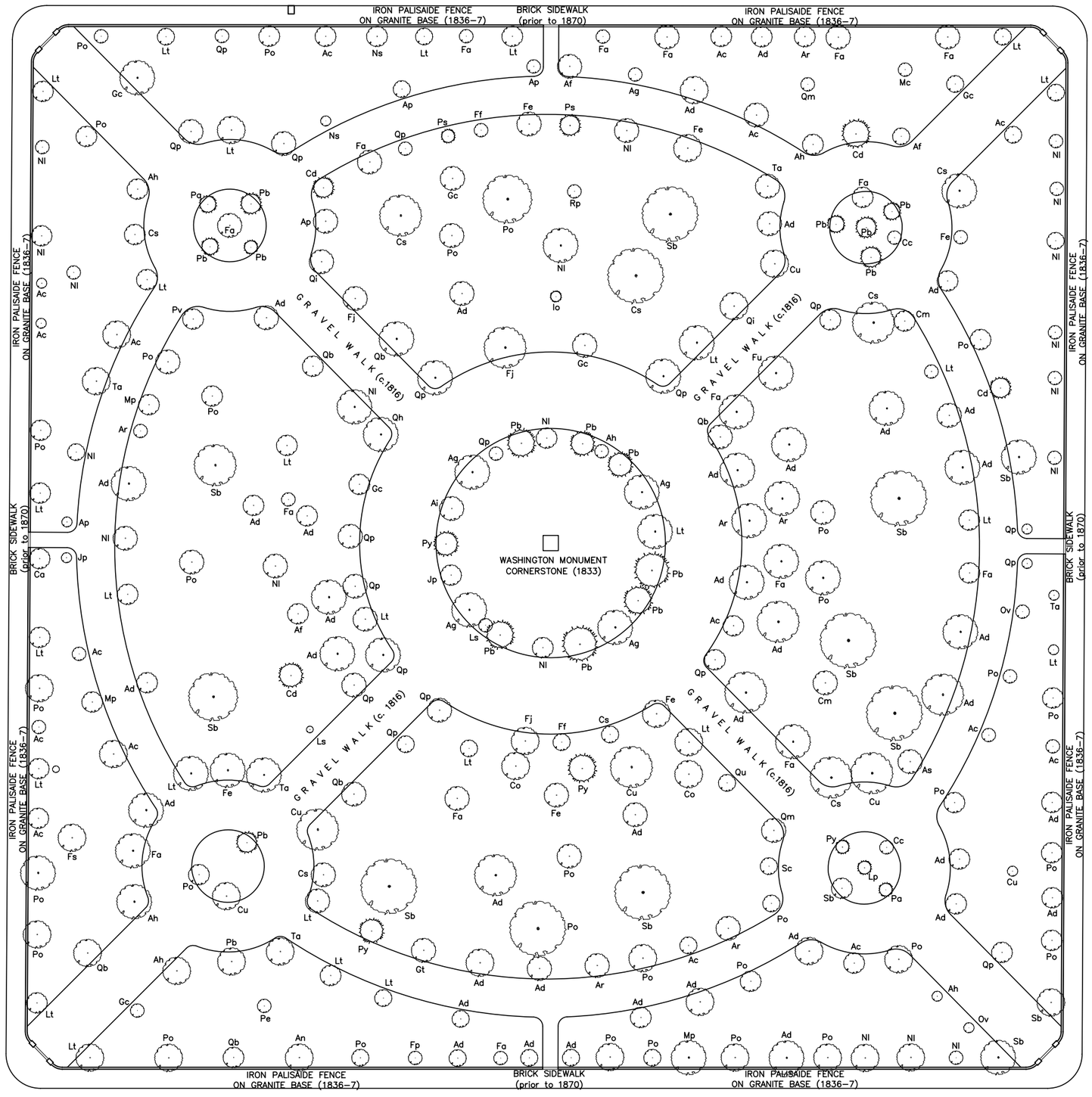
[139] Ibid.

[140] Bill Double. "A Modest Fountain on the Square." *Pennsylvania Heritage* (Summer 2009): pp. 6-13.

[141] Henry Wharton. *Washington Square: Opinion as to the Legality of its Use for Public Purposes*. Philadelphia, 1870, p. 5.

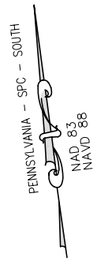
[142] *Washington Square*. N.W. Ayer & Son, 1957, p. 8.

[143] Downing. *Rural Essays,* p. 305.



VEGETATION LEGEND

Ad	Acer dasycarpum (now Acer saccharinum)
An	Acer negundo
Ai	Acer nigrum
Ap	Acer platanoides
Ar	Acer rubrum
Ac	Acer sacharinum (may refer to Acer saccharum)
Af	Aesculus flava
Ah	Aesculus hippocastanum
Ag	Ailanthus glandulosa
Ca	Castanea americana
Cs	Catalpa syringifolia (now Catalpa bignonioides)
Cm	Cerasus makeleb (now Cerasus mahaleb)
Cu	Cerasus multiplex (now Cerasus japonica var. multiplex)
Co	Celtis occidentalis
Cc	Cercis canadensis
Cd	Cupressus disticha
Ff	Fagus ferruginea
Fa	Fraxinus acuminata (now Fraxinus americana forma acuminata)
Fe	Fraxinus epiptera (now Fraxinus americana var. epiptera)
Fu	Fraxinus europea (now Fraxinus excelsior)
Fj	Fraxinus juglandifolia (now Fraxinus pennsylvanica Marshall)
Fp	Fraxinus pubescens
Fs	Fraxinus sambucifolia
Gt	Gleditsia triacanthos
Gc	Gymnocladus canadensis (now Gymnocladus dioica)
Io	Ilex opaca
Jp	Juglans poicino (now Carya glabra)
Jv	Juniperus virginiana
Lp	Larix pendula
Ls	Laurus sassafrass (now Sassafras albidium)
Lt	Liriodendron tulipifera
Mc	Magnolia consfuca (now Magnolia x soulonginana)
Mm	Magnolia macrophylla
Mp	Morus papyrifera
Nl	Species not indicated or illegible
Ns	Nyssa sylvatica
Ov	Ostrya virginiana
Pa	Pinus abies (now Picea abies)
Pb	Pinus balsamea (now Abies balsamea)
Ps	Pinus strobus
Py	Pinus sylvestris
Po	Platanus occidentalis
Pe	Prinus borealis (now Pinus muricata var. borealis)
Pv	Prunus virginiana
Qa	Quercus alba
Qb	Quercus bicolor
Qm	Quercus macrocarpa
Qp	Quercus palustris
Qh	Quercus phellos
Qi	Quercus prinus
Qr	Quercus rubra
Qu	Quercus robur
Rp	Robinia pseudoacacia
Sb	Salix babylonica
Sc	Sorbus canadensis
Ta	Tilia americana



1843 Period Plan

Washington Square

Independence National Historical Park

Philadelphia, Pennsylvania

Prepared by:

DHM Design

Pressley Associates, Landscape Architects

with RK&K

SOURCES:

1. CIRCA 1835–40 "MAP OF WASHINGTON SQUARE" [PLANTING PLAN]. ATTRIBUTED TO MARTIEN MACLEAN OR WILLIAM RUSH, PENNSYLVANIA HORTICULTURAL SOCIETY.
2. AUGUST 1842 SURVEY OF WASHINGTON SQUARE BY JOHN B. COLAHAN "ENTERED ACCORDING TO AN ACT OF CONGRESS IN THE YEAR 1843 BY M. SCHMITZ, P. KEREVEN IN THE CLERK'S OFFICE OF THE DISTRICT COURT FOR THE EASTERN DISTRICT OF PA," HISTORICAL SOCIETY OF PENNSYLVANIA.

DRAWN BY: CMB

CHECKED BY: LGM

DATE: SEPTEMBER 2010, REV. FEBRUARY 2011

15 0 30 60

SCALE IN FEET

SHEET	DRAWING NO.
1 of 1	391/105,616

Dixey Plan, 1881-1913

Overview

In 1835, the mayor was authorized to appoint a commissioner of city property, who would superintend the public squares, in addition to other duties. By city ordinance of 1854, the Department of City Property was organized, the head of which was chosen annually by the City Councils. In 1867, the Department of City Property was merged with the markets division under the title Department of Markets and City Property. Administration of the public squares was added to the duties of the commissioner of that department in 1869.[1] William F. Dixey served as Commissioner of City Property from 1875 to 1891.[2] Dixey also served as a commissioner on the Fairmount Park Commission from 1875 until at least 1880,[3] as well as a commissioner for the City Department of Parks *ex-officio*.[4] In 1890, Dixey's residence is listed in the *Philadelphia City Directory* at 3934 Spruce Street.[5] Prior to his position at the Bureau of City Property, Dixey was appointed lieutenant of the twenty-first police district by Mayor Stokley, although he resigned after a few years to serves as superintendent of the Fairmount Water Works. After his service with the Bureau of City Property, Dixey held the position of municipal agent for the Pennsylvania Railroad Company. He was also an active Mason until his death in 1898.[6]

After the Civil War, Pennsylvania entered into an era of growth, as it established itself as a center of heavy industry, with iron and steel, and coal and oil. The explosion of technology associated with the development of heavy industry filled the green country town with steam, smoke, and smog. The Centennial exposition of 1876 helped to secure this image of a technologically advanced Philadelphia. At the same time, the construction of the Main Line resulted in increased development in the suburbs of Philadelphia, with many rich residents leaving the city for the country.[7] The decision to move the city offices to Penn Square in 1870, after it was chosen over Washington Square, left Washington Square intact, with its first design, which dated to the early 1800s. In 1875, Commissioner of City Property William Dixey completed a Centennial plan for Independence Square. His plan for Independence Square consisted of a low, one foot high wall with coping surrounding the square, with stairs to enter the square at the corners and mid-block entrances. Each set of stairs was to be flanked by two gas lamps at the top. New flagstone paths at twenty and fifteen feet in width were proposed for Independence Square with sub-surface drainage to keep the paths dry. A pedestal for a single sculpture was to be placed at the center of the square, at the intersection of the two main paths.[8]

Following his plan for Independence Square, in 1881, Dixey prepared a plan for a major redesign of Washington Square. The plan eliminated the circular walks that characterized the Bridport design, and established a geometric grid of paths designed to intersect at the center. Like Independence Square, each corner of the square had three entrances, one directly on the corner and one on each of the two adjacent streets, with sixteen entrances total. The design, based on the re-routing of walks to follow beaten paths by pedestrians taking short cuts, was intended to provide the greatest convenience to pedestrians and was approved by the Councils in 1881.[9] The walks were also surfaced with flagstone, replacing the gravel walks installed in the early 1810s. The new main diagonal walks were twenty feet in width; minor walks were twelve feet wide. Between 1880 and 1883, a low granite coping nine inches in height replaced the 1836 wall and iron fence that had previously surrounded the square.[10]

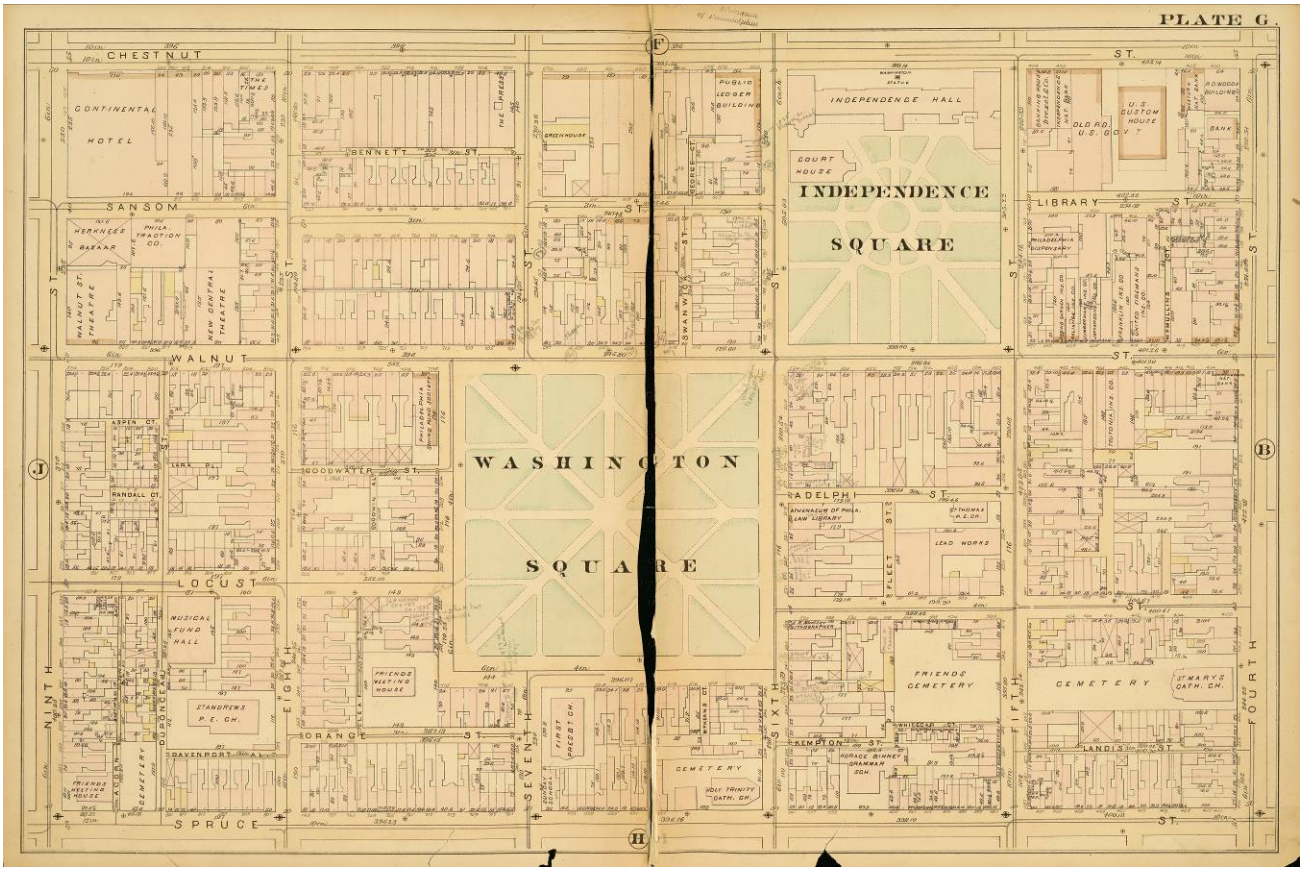


Figure 1.34: *Washington Square as shown in the 1885 "Atlas of the City of Philadelphia" by Geo. W. & Walter S. Bromley, Civil Engineers. Note the diagonal paths that connect Washington and Independence Squares at the intersection of Sixth and Walnut Streets and the densely developed lots surrounding Washington Square (Athenaeum of Philadelphia).*

Historic photographs show that some of the existing trees were retained, with the exception of those in the line of new paths;[11] however, no original plans from Dixey's redesign have been located. Evidence of the design is documented only in newspaper accounts and later in surveys.

With the redesign of Washington Square in 1881, a growing association developed between Independence and Washington Squares, with similar landscape features and diagonal paths in both squares to unite the spaces. The city also began manage the two urban squares in a consistent manner (Figure 1.34). The concept of Washington Square as a showcase of trees emerged earlier in the history of the square, as documented by Downing's 1853 comment on the square as an "admirable city *arboretum* of rare trees."[12] An undated pamphlet in the collection of the Historical Society of Pennsylvania titled "A Plea for the Railings," highlights the public debate over the 1881 redesign of Washington Square, as well as the concept of the square as a showcase of "native Sylva:"

> In an article headed 'Our Public Squares,' in the Times of April 20th, the railings surrounding them are abused and called 'ugly and jail-like,' and the idea of doing away with all such obstructions commenced and encouraged. At the same time the writer remarks, 'our pen squares should be as much alike the country as possible. Flagged walks are not like the nature; they are

ungenial [*sic*] and repulsive,' and goes on to plead in behalf of the children, that the gravel walks should be retained, and the squares 'made beautiful with green trees, pleasant walks, pretty flowers, plenteous shade, and cooling fountains.'

We will ask any candid person to view Washington Square as it now exists, and say in what respect it has been improved by the changes made there. ***The trees of noble growth had been chosen and planted with the greatest care, and represented most of the fine varieties of our native Sylva*** [emphasis added]. Many of the largest and finest of these were laid low at the beginning, to make way for the new walks, and great numbers of those not remaining surrounded by flag pavement, deprived of necessary moisture at their roots, are slowly but surely dying, a decay more painful for a lover of trees to witness than a prompt destruction by the ruthless axe. If these trees could be surrounded by a cast-iron grating six feet or so in diameter, like those in the boulevards of Paris, to allow water to reach their roots, their lives may yet be spared. This would be a considerable expense, but the result in the shade and beauty the trees would them afford would well repay it.

One great cause of the probable death of the trees is the underground drainage of Washington Square, which it is proposed to imitate on Rittenhouse Square, at an expense to the city about $8000, and for the benefit of a much-favored contractor.

The iron railings surrounding Washington Square were very handsome of their kind, and much admired by many people of good taste. They cost the city a great deal of money, but were with difficulty disposed of when removed for a comparatively small sum.

They certainly made the square a secluded, pleasant retreat for children, invalids, tired men and women, who often rested there for hours. The grass, full of violets in spring, the cool gravel, the fresh air purified by the breadth of the great trees, made it a delightful playground—an oasis in a wilderness of brick. It undoubtedly was the handsomest of all our city squares. And now what is it? A thoroughfare for hurried pedestrians.

The seats having been removed, no foot-sore, weary toiler can rest there for a moment, except on the low curb surrounding the grass, and there some humble souls do rest. In the spring no flocks of little children delight in the violets and gather handfuls of them to beautify their lowly homes. No violets are there, for the grass hemmed in by stone curb, and deprived of moisture by the too efficacious drainage of the square, is fast dying like the trees.[13]

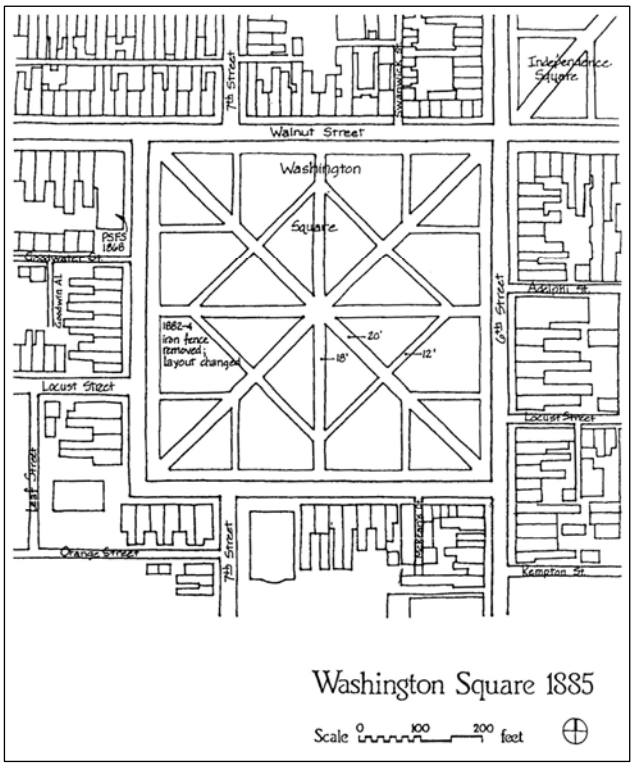


Figure 1.35: *Denise Rabzak's period diagram for Washington Square, 1885, showing Dixey's new path layout in place (Washington Square in Historic Society Hill: A Site Plan Chronology, 1683-1984).*

Although unattributed, this important pamphlet chronicles the changes made to the square with Dixey's improvements, including replacing gravel walks with stone slabs, removing of the perimeter fence (railing), removing seating within the square, and removing several trees to accommodate the new path layout. The description of the square as deprived of moisture is in stark contrast to the early history of the square, when it included a duck pond near its southwest corner and two small streams.

Whether or not the suffering of the trees was actual or presumed is not documented in photographs. What is clearly illustrated in the pamphlet, however, is that the redesign of the square was associated with changing demands on the urban landscape. The square's use had changed from an urban retreat to a landscape designed to efficiently accommodate hurried pedestrians. Conceptually, this change is consistent with an increase in efficiency and productivity spurred by the era of industrialization that followed the Civil War.

On December 5, 1883, the Councils passed a resolution to place benches around the center of both Independence and Washington Squares,[14] perhaps because benches were not originally included in Dixey's design.

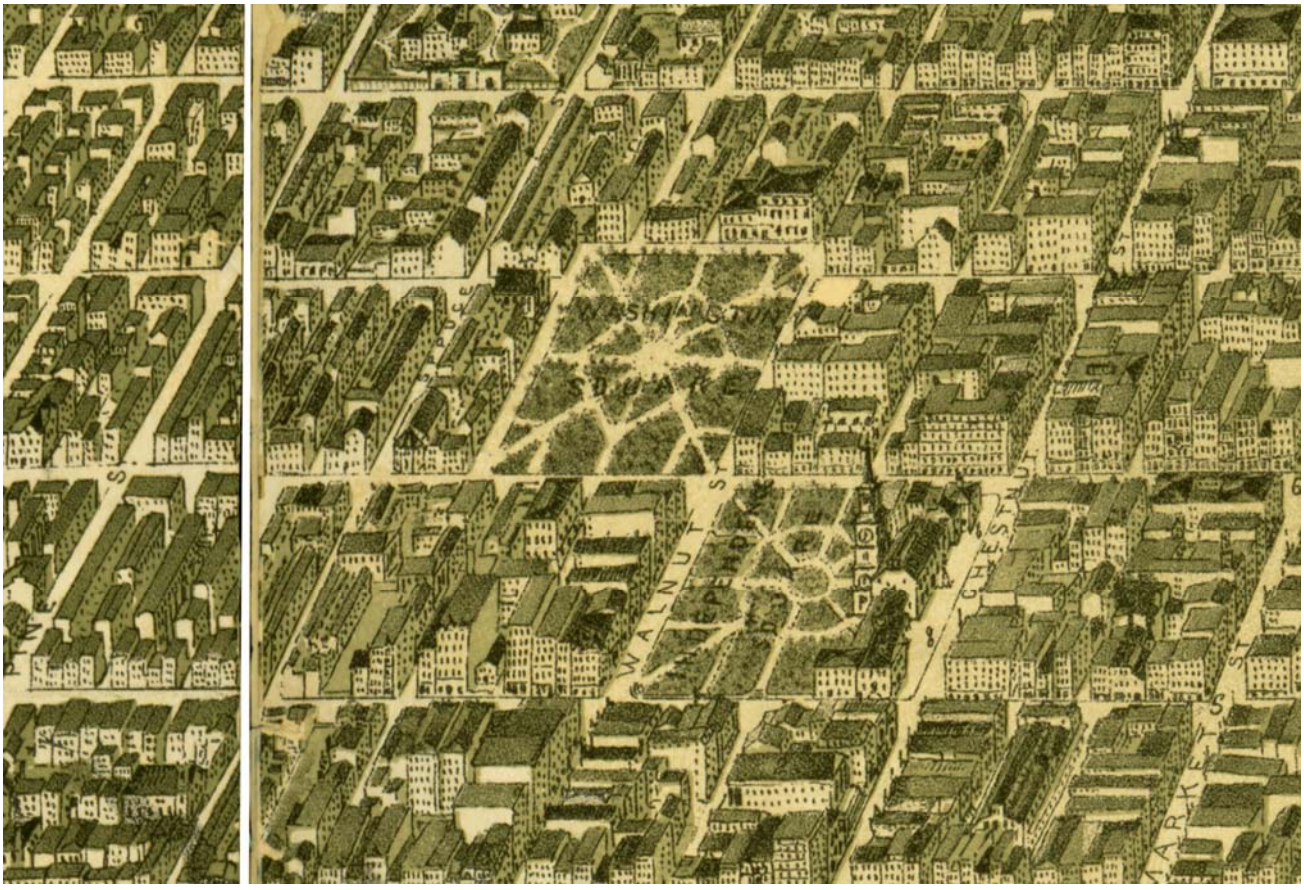


Figure 1.36: *Detail of an 1886 "Perspective of Philadelphia" by Burk & McFetridge showing Washington and Independence Squares. Note the similarity of the path configurations within the squares, with the only major difference being the circular path at the center of Independence Square compared to the rectilinear path at the center of Washington Square (The Map Collection, Free Library of Philadelphia).*

Eisenhower's Tenure at the Bureau of City Property

In 1891, Alfred S. Eisenhower succeeded Dixey as Commissioner of City Property. Eisenhower was responsible for the management of the city's public squares through the economic depression of the 1890s. Eisenhower was appointed to the position in November 1891 by Mayor Stuart upon Dixey's resignation, where he remained until 1903. As of 1890, Alfred S. Eisenhower resided at 913 N. 17th Street and was listed in the City Directory as a bookkeeper.[15] From 1903 to 1905, Eisenhower assumed the position as tipstaff in Common Pleas Court number 1, where he remained until 1905.[16] By 1902, Eisenhower had taken a position with the Postal Department developing the free rural delivery routes in the "middle states."[17] From 1905 to 1912, Eisenhower again served as the Chief of the Bureau of City Property, after scoring highest on a civil service examination for the position against James Yearsley, Nathan M. Griffiths, and George Thomas.[18] After his resignation in 1912, he was appointed tipstaff in Court number 3 in 1913, where he remained in service until his death in 1917.[19]

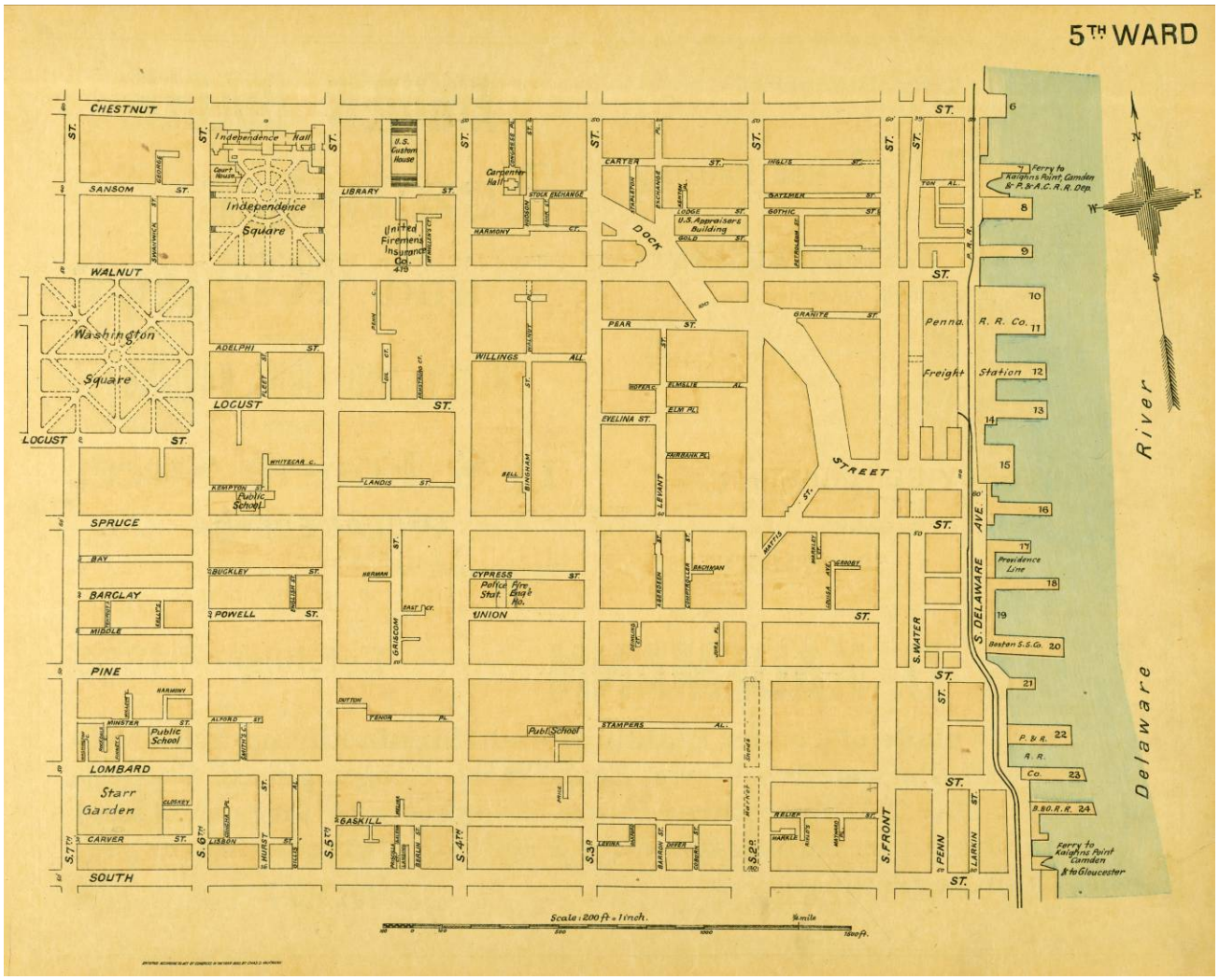


Figure 1.37: *Plate from the 1895 "Street Atlas of Philadelphia by Wards" by Charles D. Kaufmann, Publisher; Compiled and drawn by J. Edelmann showing Washington and Independence Squares, as well as Dock Street (The Map Collection, Free Library of Philadelphia).*



Figure 1.38: *1889 etching of the Philadelphia Savings Fund Society building showing stone slab sidewalks and the iron fence removed from the perimeter of the square and the horse watering trough conspicuously absent from the intersection of Seventh Street and Walnut Street (The Historical Society of Pennsylvania, Campbell Collection).*

Shortly after Eisenhower assumed the position of Commissioner of City Property, the nation suffered a severe economic depression. The Panic of 1893 was spurred by speculation, particularly in the railroad industry. One of the first railroads to go bankrupt was the Philadelphia and Reading Railroad. Ultimately, approximately one quarter of the nation's railroads went bankrupt following overbuilding on shaky financing. Financial panic ensued, hitting Wall Street the same year, and casing bank runs. Unemployment levels increased and many unemployed people, unable to pay their mortgages, walked away from their homes.[20]

A lithograph by Frank Taylor, drawn after 1892, shows the benches in place in Washington Square.[21] In 1894, the Chief of City Property Eisenhower recommended that the City hire a professional arborist to maintain trees in the squares. As Eisenhower indicated to the Councils, "preserving the shade trees in the city is worthy of public attention."[22] In 1896, the city hired John C. Lewis as the City Forester[23] (Figures 1.41 and 1.42). Commissioner Eisenhower was also an early proponent of restoration at Independence Square, where in 1894 he proposed funding to restore the buildings to their "primitive appearance."[24]

In 1898, Washington Square was re-sodded where necessary and the lavatory, located near the northeast corner of the square, was repaired.[25] The lavatory is first referenced in an 1898 letter from John Lewis, City Forester, to Alfred Eisenhower and is last documented in a 1952 photograph of the square. In 1952 the lavatory was documented in a measured drawing by LeRoy Varner, who also suggested improvements to the structure, although there is no evidence these improvement were undertaken. As it was documented in 1952, the lavatory was eighteen feet square and separated into two spaces for men's and women's restrooms. Little other narrative documentation of the lavatory or its origin has been located.



Figure 1.39: *The Philadelphia Inquirer captured this 1904 photograph of a police officer waking a napping man in Washington Square. Although taken over a decade after the homeless crisis in Washington Square as a result of the economic panic of 1893, the homeless remained in the square. Both old and new trees are visible in the photograph. Note also the Philadelphia Savings Fund bank and light fixtures on stone bases flanking the entrance to the square beyond (The Print & Picture Collection, Free Library of Philadelphia).*

As unemployment and homelessness rose in the wake of the Panic of 1893, greater stress was placed on Washington and Independence Squares. On July 14, 1896 the *Philadelphia Inquirer* reported a police raid at the two squares, during which forty policemen collared forty-seven men sleeping there at 3 A.M. The article reported that the "people who either will not work or are unable to get employment" frequented the squares[26] (Figure 1.39). At the same time, an influx of immigrants brought overcrowding and a rise in crime to the city. The Octavia Hill Association was organized in 1896 to combat this social crisis. The organization as named for the British pioneer of housing reform of the same name. The neighborhood to the south of Washington Square at Sixth and Lombard Streets became the center of the housing reform movement.[27]



Figure 1.40: *Photograph of the Washington Grays monument prior to 1939, which stood in the center of Washington Square from 1898 to 1916 and was relocated to the western side of the square from 1916 to 1954. The First Presbyterian Church designed by John Haviland is shown in the background to the south, demolished in 1939 (The Library Company of Philadelphia).*



Figure 1.41: *March 1902 photograph of Washington Square with children among downed branches following a sleet storm (The Print & Picture Collection, Free Library of Philadelphia).*



Figure 1.42: *Washington Square looking diagonally toward Independence Square following a March 1902 sleet storm. The block known as "Lawyer's Row," constructed after the demolition of the Walnut Street Prison, is visible at right. Note the 1900 D.A.R. memorial in the northeast quadrant of the square at center (The Print & Picture Collection, Free Library of Philadelphia).*

New Site Features

The history of structures in the square, such as the aforementioned lavatory, is not completely clear. Theresa Stohlman of the Fairmount Park Commission indicated that the Commission constructed the guardhouse near the corner of South Washington Square and Sixth Street in the 1890s for the Fairmount Park Guard.[28] However, this guardhouse does not rest on a permanent foundation and does not appear on plans or in photographs of the square until after the 1950s redesign of the square by G. Edwin Brumbaugh.

The second guardhouse was constructed in the late 1930s and is located to the northwest of the center of the square. This building featured a concrete block addition that was used as a maintenance building, which was removed during the rehabilitation of the square in the early 2000s. The guardhouses on Washington Square belong to a group of similar structures located throughout the City of Philadelphia's Fairmount Park System. Once numbering over one hundred with varying architectural styles, as of 2002, fewer than twenty survived, two of which are located in Washington Square. The guardhouse near the southeast corner of the square, with ornate decorative scrolls at the corners of the building, is one of the oldest remaining in the park system.[29]

In 1898, a monument to the militia unit Washington Grays was moved from its original location near the intersection of Broad Street and Girard Avenue to a new location in the center of Washington Square facing Seventh Street, along which the command was first mustered into service.[30] The Washington Grays was "recruited and drilled by Colonel Francis E. Patterson, and they were the first Pennsylvania troops to reach Washington in 1861 prepared to take the field"[31] (Figure 1.40).

In October 1900, the Quaker City Chapter of the Daughters of the American Revolution constructed a small memorial in Washington Square, dedicated to the soldiers who died in Philadelphia during the Revolutionary War.[32] The memorial consists of a large boulder with a plaque inscribed "in memory of the many American soldiers, who during the war for independence, died prisoners of war in the jails of Philadelphia, and were buried in this ground during the years 1777 and 1778."

Publisher's Square

Shortly after the turn of the century, the streets surrounding Washington Square became a popular location for printing and publishing houses. Resident publishing houses included David McKay (1904); Lippincott & Co. (1907); Wilmer Atkinson Company (1909), publisher of the *Farm Journal*; Cyrus H.K. Curtis (const. 1910-1912, 1921), publisher of the *Ladies' Home Journal* and the *Saturday Evening Post*; George W. Jacobs & Company (1910); The Catholic Standard and Times (1911, moved to property purchased from McKay); Walter Burns Saunders & Company (1912, constructed on property purchased from Wilmer Atkinson Company); and Biddle Press (1912). The Penn Mutual Life Insurance Company also obtained options on eleven properties along Washington Square, extending along Sixth Street from Walnut to St. James in early 1912.

With the addition of these businesses, the populous of Washington Square became an interesting juxtaposition of public park users and corporate business people. Despite this change, it was reported in 1913 by the Olmsted Brothers that Washington Square "is, after all, very much a playground, and quite as it should be, for there is a large population of poor people living quite near although the surroundings of the Square have of late been given up to business houses."[33]

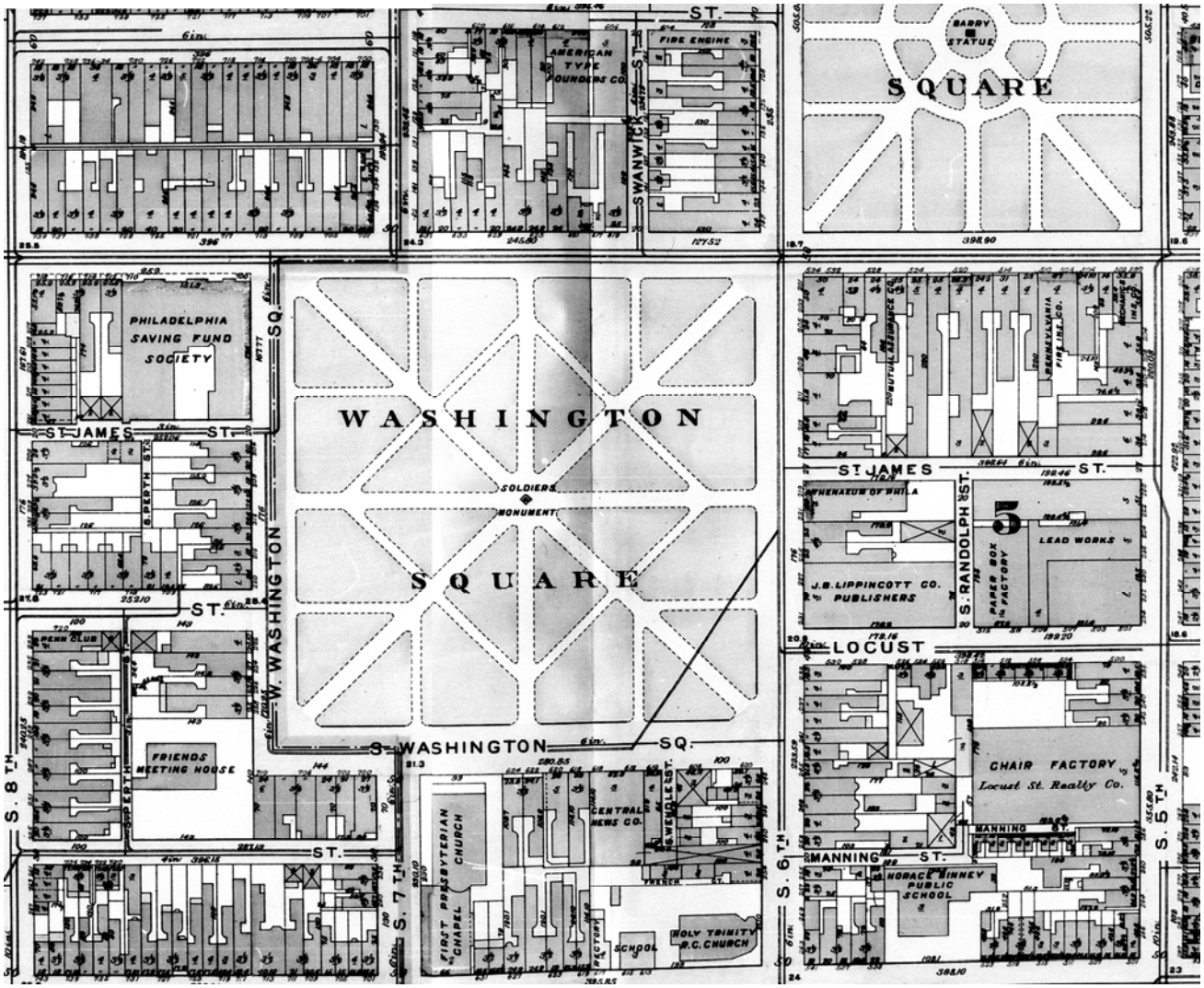


Figure 1.43: *Bromley's 1908 "Atlas of Philadelphia" showing City Commissioner of Property William F. Dixey's path layout for Washington Square in place, including the Washington Gray's monument at the center of the square (University of Pennsylvania Library).*

Summary, 1881-1913

The 1881 redesign by William Dixey changed the overall layout of Washington Square, by realigning paths from a circular design into straight lines placed on the diagonal and at right angles to the adjacent streets (Figure 1.43). The new walks were paved with "flagstone," taking the place of the gravel material associated with the Bridport design. A low nine-inch high granite coping replaced the wall and iron fence enclosing the square. With the redevelopment of buildings along the periphery of the square into an important collection of publishing houses, and the continued popularity of the square for public promenading, this era was marked with improvements to the square, spurred by public advocacy. Benches returned to the square in 1883, trees were maintained under the care of the first city forester, John C. Lewis, in 1896, the Washington Grays monument was moved to the center of the square in 1898, and the Daughters of the American Revolution constructed a monument to the Revolutionary War soldiers in 1900. The

Fairmont Park Commission added decorative guardhouses to the square and the city continued to maintain the landscape as a significant public open space.

Endnotes

[1] Members of the Senior Class in the Wharton School of Finance and Economy. *The City Government of Philadelphia: A Study in Municipal Administration*. Philadelphia, PA: University of Pennsylvania, 1893, pp. 189-194.

[2] *Weekly Notes of Cases Argued and Determined in the Supreme Court of Pennsylvania, the County Courts of Philadelphia, and the United States District and Circuit Courts for the Western District of Pennsylvania by Members of the Bar*, Volume X, April 1881 to December 1881. Philadelphia, PA: Kay & Brother, p. 559. See also "William Dixey Dead." *The Philadelphia Inquirer* 139:7 (7 July 1898).

[3] *The Public Ledger Almanac*, annually 1875-1880. Philadelphia, PA: George W. Childs.

[4] *The Philadelphia Times Almanac*, annually 1887-1891. Philadelphia, PA: The Times.

[5] *Gospill's Philadelphia City Directory for 1890*. Philadelphia, PA: James Gospill's Sons, 1890, p. 499.

[6] "William Dixey Dead." *The Philadelphia Inquirer* 139:7 (7 July 1898), p. 8.

[7] Nathaniel Burt and Wallace E. Davies. "The Iron Age, 1876-1905." In Russell F. Weigley, ed. *Philadelphia: A 300-Year History*. New York, NY: W.W. Norton & Company, 1982, p. 471.

[8] *Inquirer* (22 July 1875), as quoted in Anna Coxe Toogood, Historian, National Park Service, Independence National Historical Park. "Cultural Landscape Report, Independence Square, Volume One, Historical Narrative," 2004, p. 243.

[9] "Historic Washington Square Being Made into Park Combining Beauty and Utility," *Public Ledger*, 26 December 1915, p. 8., as referenced in Denise R. Rabzak for the National Park Service, Independence National Historical Park. "Washington Square: A Site Plan Chronology, 1683-1984," May 1987, p. 21.

[10] City of Philadelphia. *Journal of the Select Council of the City of Philadelphia*, Apr. 4, 1881 to Sept. 29, 1881. Philadelphia, PA: E.C. Markley & Son, 1881, p. 77, as quoted in Rabzak. "Site Plan Chronology," p. 19.

[11] *Inquirer* (22 July 1875), as quoted in Toogood. "Cultural Landscape Report, Independence Square," p. 243.

[12] Andrew Jackson Downing. *Rural Essays*. New York, NY: Putnams, 1853, p. 305.

[13] "A Plea for the Railings," n.p., n.d. (circa 1888-90).

[14] Entry for December 20, 1883, Journal of Common Council, Oct. 4, 1883-Apr. 3, 1884, p.214, as referenced in Toogood. "Cultural Landscape Report, Independence Square," p. 252.

[15] *Gospill's Philadelphia City Directory for 1890*. Philadelphia, PA: James Gospill's Sons, 1890, p. 562.

[16] "Obituary Alfred S. Eisenhower." *The Philadelphia Inquirer* 176: 32 (1 February 1917), p. 18.

[17] "In Wedlock's Bonds for Half a Century. Urias Eisenhower, an Old Court Officer, and His Wife Will Mark Fiftieth Anniversary of their Marriage." *The Philadelphia Inquirer* 147:88 (26 September 1902), p. 2.

[18] "Thomas' Answers Compared with those of Leaders." *The Philadelphia Inquirer* (2 August 1905), p. 6.

[19] "Obituary Alfred S. Eisenhower Tipstaff Former City Property Chief Passes Away." *The Philadelphia Inquirer* 176: 32 (1 February 1917), p. 18.

[20] William Jett Lauck. *The Causes of the Panic of 1893*. Boston, MA: Houghton Mifflin and Company, 1907.

[21] Frank H. Taylor. *Ever Changing Philadelphia, Twenty-Four Drawings with Descriptive Text*, Philadelphia, PA, 1915, p. 11, as referenced in

Toogood. "Cultural Landscape Report, Independence Square," p. 252.

[22] Annual Report, Bureau of City Property, as quoted in *Philadelphia Inquirer*, 25 January 1895, as quoted in Toogood. "Cultural Landscape Report, Independence Square," p. 258.

[23] *Philadelphia Times*, 27 February 1896, as quoted in Toogood. "Cultural Landscape Report, Independence Square," p. 262.

[24] Annual Report, Bureau of City Property, as quoted in *Philadelphia Inquirer*, 25 January 1895, as quoted in Toogood. "Cultural Landscape Report, Independence Square," p. 257.

[25] John C. Lewis, City Forester, to Alfred S. Eisenhower, Chief of Bureau of City Property. *Annual Report for 1898*. Archives Division, City of Philadelphia.

[26] *Philadelphia Inquirer*, 14 July 1896, as quoted in Toogood. "Cultural Landscape Report, Independence Square," pp. 258-59.

[27] Dorothy Gondos Beers. "The Centennial City, 1865-1876." In Weigley, ed. *Philadelphia,* p. 496.

[28] Email Elizabeth Mansfield to Susan Edens, 26 August 2004.

[29] Courtney LaRuffa, "A Cultural and Architectural History of Fairmount Park's Guard Boxes," August 2002 and Courtney LaRuffa, "Guard Box Chronology," August 2002.

[30] Joseph Jackson. *Encyclopedia of Philadelphia*, Vol. IV, Harrisburg, PA: The National Historical Association, 1933, p. 1170.

[31] Arthur M. Kennedy. "Philadelphia's Washington Square: An Address Delivered by Arthur M. Kennedy before the Germantown Historical Society, February 17, 1942," p. 10.

[32] "Lesson No. 45 in American History." n.p. [newspaper clipping], 31 August 1925. Temple Urban Archives, Box 678 in NPS, Independence NHP Toogood files.

[33] Olmsted Brothers to Charles F. Jenkins, Washington Square Improvement Association, 22 April 1913, p. 9. Jenkins served as editor of the Farm Journal (1890), a magazine founded by his uncle, Wilmer Atkinson.

Olmsted Brothers Plan, 1913-1952

Overview

On January 9, 1913 property owners surrounding Washington Square convened the first meeting of the Washington Square Improvement Association and, with the support of the city, "resolved that a Committee of three be appointed by the Chairman, who shall be authorized to employ a competent landscape architect to formulate plans and specifications for the care and improvement of Washington Square and the estimates cost of the same."[1] The committee was comprised of William F. Dreer, nursery and seedman; G. Colesberry Purves, president of the Philadelphia Savings Fund Society; and Edward Bok, editor of *the Ladies' Home Journal,* published by Cyrus H.K. Curtis Company on the northern side of the square. Charles Francis Jenkins (1865-1951), editor of the *Farm Journal*, published by the Wilmer Atkinson Company at the southwest corner of the square, served as secretary of the Washington Square Improvement Association. Jenkins was a strong advocate for illuminating Philadelphia's history. In a presentation before the Rotary Club, Mr. Jenkins said, "No other city in American can boast the historical treasures possessed by Philadelphia. They should be brought out where they can be seen at all time. It is one of the best advertisements the city can use and it is a duty to advertise the city in this way."[2] Jenkins interest in the history of the square and its association with Independence Squares was expressed throughout his involvement in the project (Figure 1.44).



Figure 1.44: *1912 photograph of the Curtis Publishing Company building at the intersection of Walnut and Sixth Streets, showing the diagonal relationship between Washington Square (left) and Independence Square (right), as illustrated in Montgomery Schvyler and Thomas Nolan "A Modern Publishing House," Architectural Record 31 (Independence National Historical Park).*

Similarly, William F. Dreer (1848-1918) took a particular interest in the square. He was an expert horticulturist and committee member, who operated a seed company near Seventh and Chestnut Streets. Around 1914 Dreer moved his family business, which he inherited from his father in 1873, to Washington Square. In the late 1890s, Dreer was also involved with the Horticultural Society of Pennsylvania, for which he served as secretary in 1897.[3] A July 1924 article in the *Public Ledger* noted that Dreer built the six-story building on Washington Square about ten years earlier.[4] In 1924, Dreer sold his property on Washington Square to Charles F. Jenkins, owner of the *Farm Journal*, and moved his seed company into an eight story building at 1306 Spring Garden Street.

The day after the committee interested in the improvement of Washington Square convened, Chief of the Bureau of City Property William H. Ball contacted the Olmsted Brothers Landscape Architects of Brookline, Massachusetts regarding the possibility of their involvement in the improvement of Washington Square.[5] Charles Jenkins followed-up on this request on January 22, 1913, contacting the Olmsted Brothers firm at the request of William F. Dreer to inquire about fees associated with preparing plans for improvements. In the letter, Mr. Jenkins indicated that it was not the committee's intention to execute the work, but to furnish plans and specifications and secure an appropriation from the city to fund the work. By 1914, however, the Washington Square Improvement Association had appointed a separate fundraising committee to raise $10,000 and lobbied the councilmen for an additional $25,000 to fund restoration work.[6]

The landscape architectural practice associated with Frederick Law Olmsted and his successors was initially established in 1857, when Olmsted and Calvert Vaux submitted their Greensward plan in the design competition for New York City's Central Park. With the firm's work growing steadily from that date on, including a substantial body of work for the Boston park system, in 1883 Olmsted established a permanent office in Brookline, Massachusetts. After the senior Olmsted's retirement in 1895, his stepson, John Charles and son, Frederick Law Olmsted Jr. renamed the firm Olmsted Brothers, Landscape Architects in 1898. This partnership was the longest (1898-1961) and most prolific of all the iterations of the Olmsted firm (1857-1979). The firm's design for Washington Square was executed at the height activity of the firm's work, which included important parks throughout the nation.

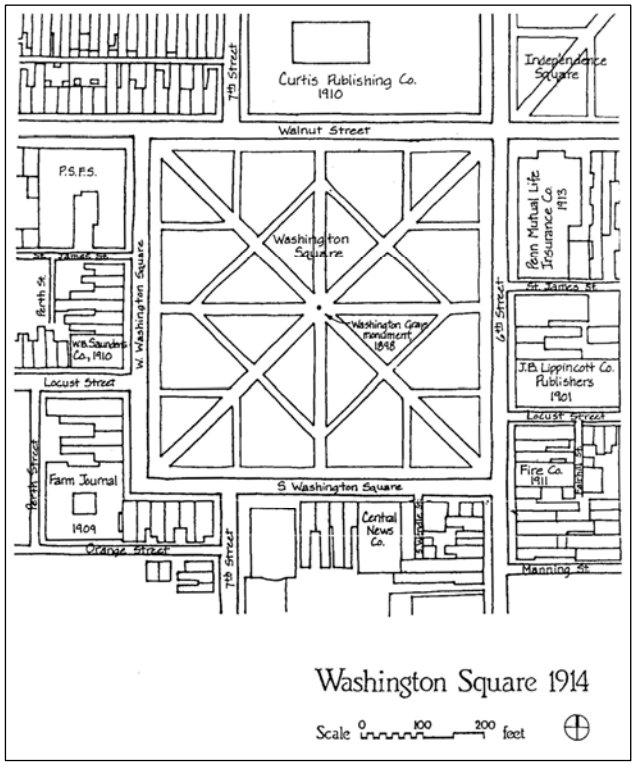


Figure 1.45: *Denise Rabzak's period diagram for Washington Square, 1914, Dixey's design intact, with publishing houses around the square (Washington Square in Historic Society Hill: A Site Plan Chronology, 1683-1984).*



Figure 1.46: *April 1913 photograph of a ceremony in progress in front of the Washington Grays monument. Note the mixture of gas and early electric light fixtures in the square and the lavatory building beyond the monument to the northeast (Philadelphia City Archives).*

Olmsted Brothers associate partner Percival Gallagher visited Washington Square on February 10, 1913 to consult with the committee.[7] Following the visit, the Olmsted Brothers firm outlined its rationale for the improvement of the square in a letter to Jenkins. The firm stated that they would consider the condition and value of existing trees; condition and value of pavements, curbs, and lamp posts; lines of traffic across and about the square; uses of the square as a public open space and character of its appearance; and improvement of its soil[8] (Figure 1.46). The letter continued, "we doubt the wisdom of any radical change in its design, however, because of the danger of imposing upon the City a scheme the maintenance of which could not easily be met in a practical way. We refer to a highly ornate and even gardenesque treatment."[9] At the time, there was only a single superintendent in the square from 7 A.M. to 5 P.M. daily, except Sunday.[10]

The Olmsted Brothers initial report to the committee quantified the existing trees at three hundred and eight, about one third of which were over eight inches in diameter, with many even larger (twenty-one of these were two and a half to four feet in diameter). Among the most noteworthy trees were

the American Elm, Plane, Silver Maple, Catalpa, Ash and two varieties of Oak. The American Elm specimens were the largest in quantity and the Silver Maple were in the poorest health.[11] A survey of the square prepared by the city in 1913 shows the base map from which the Olmsted Brothers firm developed their design (Figure 1.47). At the time, the square contained a mixture of both gas and electric light fixtures, which were scattered about without regard to an orderly scheme.

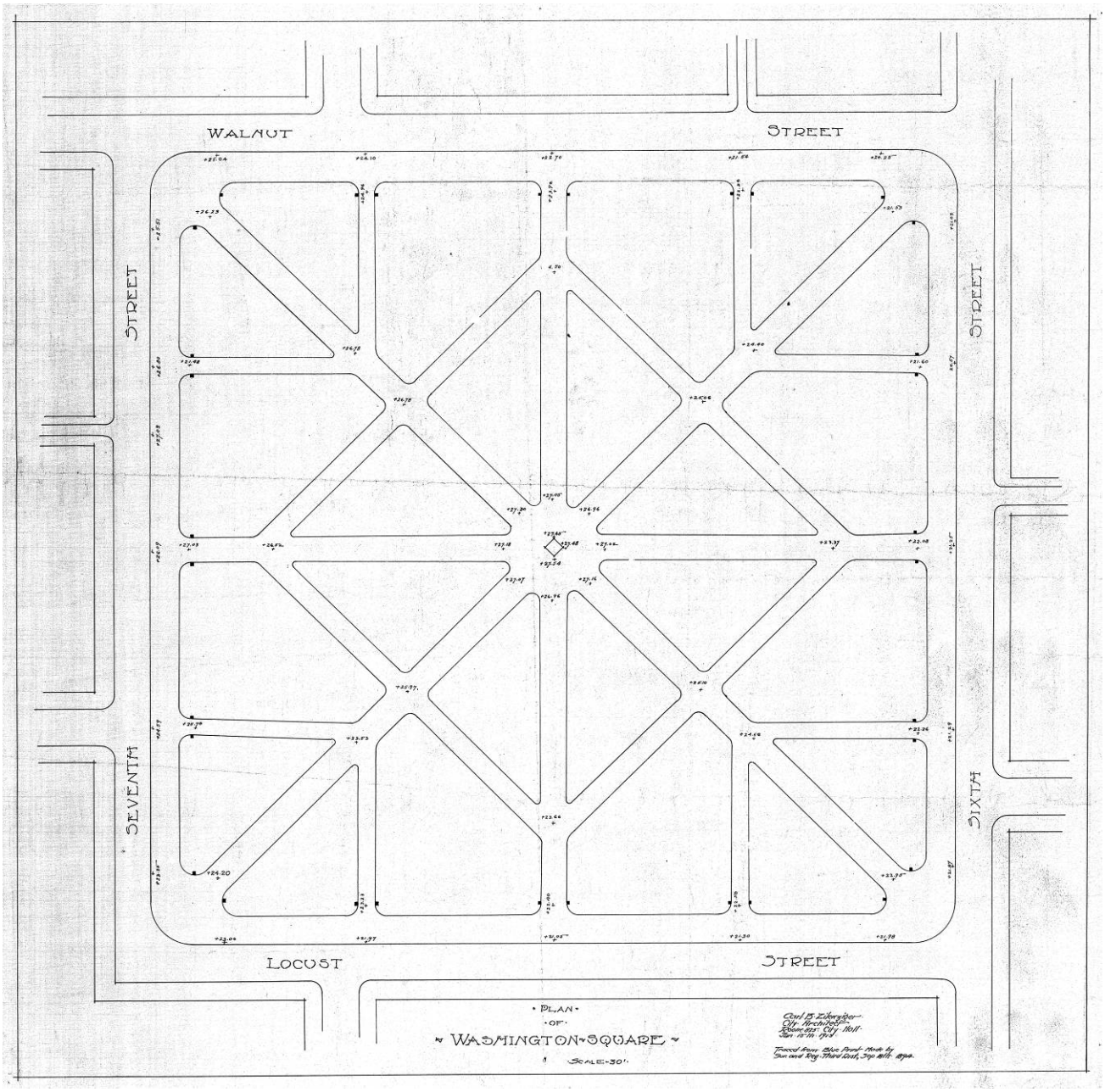


Figure 1.47: *January 1913 city survey by Carl B. Zilerziger, City Architect, traced from a blueprint made September 1894, completed in preparation for the Olmsted Brothers work on Washington Square (Frederick Law Olmsted NHS, Olmsted Archives).*

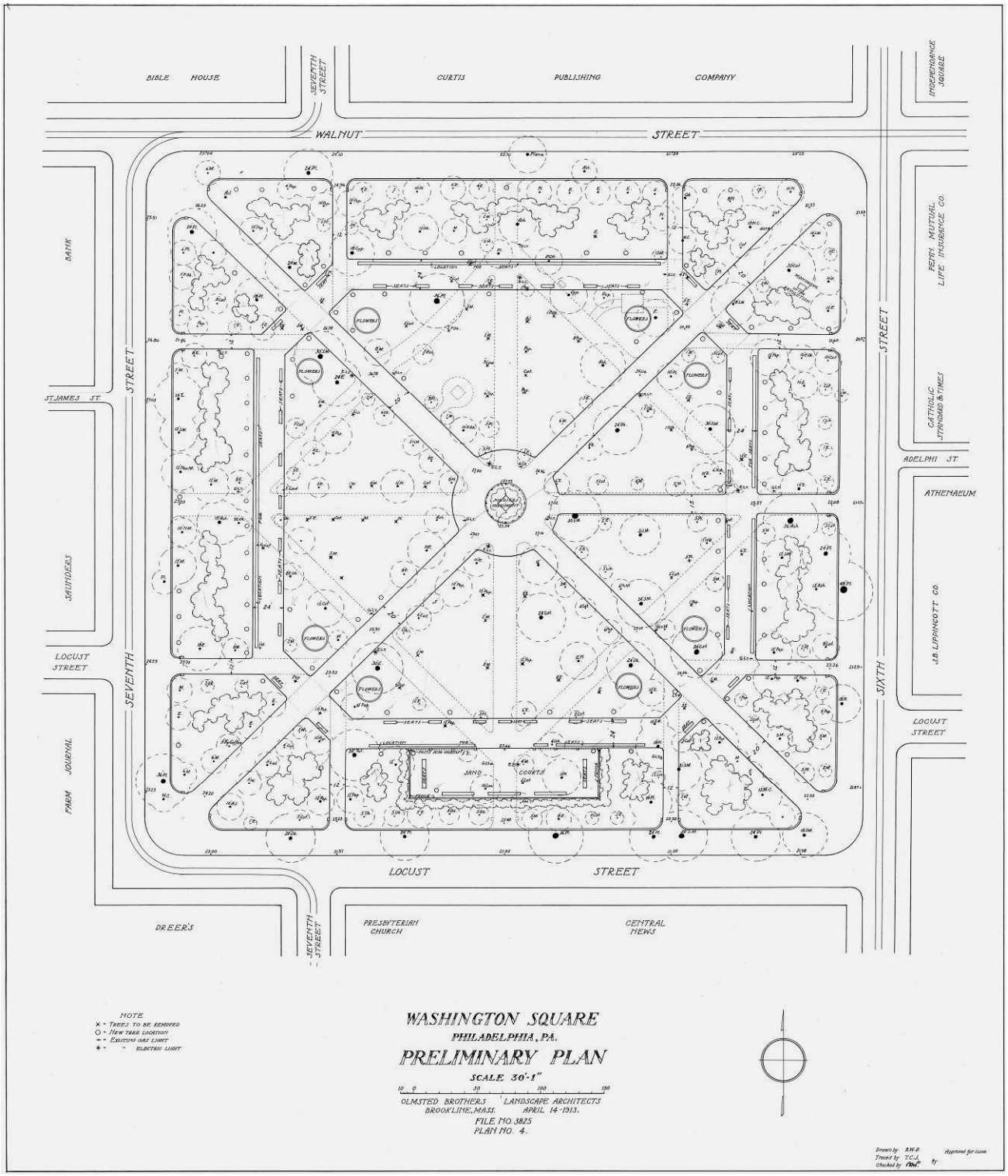


Figure 1.48: *April 1913 Olmsted Brothers' preliminary design plan for Washington Square (Frederick Law Olmsted NHS, Olmsted Archives).*

The Preliminary Plan, April 1913

The Olmsted Brothers submitted their preliminary plan to the committee and the Bureau of City Property on April 14, 1913 (Figure 1.48). The plan proposed a new arrangement of walks that:

> provides an opportunity to plant the borders of the square with clumps of ornamental shrubbery, as indicated, thus giving a slight degree of enclosure to the open central portion, which, except for a few flower beds, would be simple stretches of turf dotted with occasional large trees, beside those along the walks…The shrubs should be of such varieties as will withstand the dust and smoke of the city, such as the hardy varieties of Privet, Japanese Barberry, Bush Honeysuckle, *Euonymus alatus*, *Forsythia, Halesia*, Buckthorn, *Rosa rugosa*, and Weigelia.[12]

At the center of the square, the firm proposed to slightly enlarge the pavement to soften the edges of the turf areas and to introduce a circular planting bed at the base of the Washington Grays monument.[13] A sand court was provided on the southern side of the square as a play area.

Upon receipt of the preliminary plan, Chief of City Property, W.H. Ball, referred the plan to the Art Jury for comment. On July 17, 1913, the Jury met in the square to review the plan.[14] Architect Paul Cret, who was at the time involved with planning the city's boulevards and responsible for the design of Rittenhouse Square, was called in by the Art Jury for his professional opinion and to join in their review. Meeting notes indicate that Cret was in favor of the Olmsted Brothers' design and assisted in the placement of the monuments within the square, suggesting the Washington Grays monument be placed on the western side of the square and the D.A.R. monument of the Revolution on the northern side.[15] (By 1920, however, photographs show that the D.A.R. monument of the Revolution was moved to the northeast corner of the square, although this move is undocumented in writing.) The Art Jury also suggested that the grade in the center of the square (where it was elevated below the Washington Grays monument) be lowered to afford views of Independence Square.[16] In the absence of the monument in the center of the square, the Art Jury felt that a decorative feature, such as a fountain, should be added in its place "to hold the design together."[17] The Olmsted Brothers' design included what appears to be a circular fountain, although ultimately the center of the square remained open.

The preliminary design for the square included a lavatory and caretaker's house opposite one another to the east and west of sand courts on the south side of the square (never constructed).[18] The Olmsted Brothers cost estimate makes reference to "an underground comfort house with space for superintendent's office," but indicates that a design had not yet been completed.[19] The project was proposed to be funded by the city; however, according to the Chief of the Bureau of City Property, the city was not in a financial condition to fund such work.[20] On April 13, 1914 the subject was still under discussion. Minutes of a meeting of the Washington Square Improvement Association's committee reported "there was some opposition to locating the underground comfort station at the corner of Sixth & Walnut Streets…the Committee recommended the re-location of the underground comfort station at a point midway between Walnut Street and South Washington Square on a path parallel with Sixth Street."[21] Ultimately, the lavatory remained above-ground near the northeast corner of the square (Figure 1.57).

Architect Horace Wells Sellers, who at the time was involved with the design of Independence Square, contacted the committee and the Olmsted Brothers in April 1913 to discuss the proposed improvements to Washington Square in relation to those contemplated in Independence Square.[22] Sellers was the president and director of the Philadelphia Chapter of the American Institute of Architects and

was interested in reinforcing the unity of the two urban squares. Concurrently, the Olmsted Brothers firm was contacted by the Pennsylvania Society Sons of the Revolution, who were interested in constructing a monument to General Anthony Wayne. Gallagher suggested to both Sellers and the Sons of the Revolution that Independence Square would be the most fitting place for such a patriotic monument and referred the issue to Sellers.[23] At the 1914 meeting of the committee, there was again discussion of "another Committee interested in a memorial to General Anthony Wayne [which] was considering erecting a central fountain or memorial gate posts or some other appropriate adornment for the square."[24]

Revised Preliminary Plan, July 1913

The latest plan showing the Olmsted Brothers recommendations for improvements to Washington Square titled "Revised Preliminary Plan" was submitted to the committee in July 1913 (Figure 1.49). The plan incorporated the recommendations of the Art Jury and included removal of mid-block entrances to the square, a slight realignment of the secondary entrances at each corner, and re-orientation of interior circuit walk to run parallel to the adjacent streets. Seating was provided along both sides of the interior circuit walk. Four sites for monuments were established inside the square, mid-block along each side. Two buildings, then located near the center of the square (guardhouse) and closer to the intersection of Sixth Street and Walnut Street (lavatory), were slated for removal. However, as later plans show that the buildings remained in place. Shrub planting along the perimeter of the square was proposed to provide separation from the adjacent streets. Seven existing gas lights are shown on the plan, along with four existing electric lights, all arranged adjacent to the existing paths in an irregular pattern, as the recommendations did not yet encompass a more orderly arrangement of lighting.

Around the same time in July 1913, several articles appeared in local newspapers advocating to continue Seventh Street through the square. As William H. Shelmerdine wrote in a letter to the editor of the *Ledger*, "it is not difficult to see the necessity for removing what is in effect an obstruction to constantly growing traffic in such a centre."[25] Charles F. Jenkins of the Washington Square Improvement Association agreed, and wrote in a letter to Percival Gallagher of the Olmsted Brothers firm, "it would be an advantage to me to have the trolley cars run through the Square if they simply had a single track right of way, with grass between the rails and proper fencing at each side..."[26] However, the Olmsted Brothers' initial report to the committee on April 22, 1913 preemptively refuted Jenkins' wishes, stating, "we were not convinced that the interruption of the normal line of 7th Street is a hardship, and we would not, therefore advise cutting off a portion of the Square for the sake of extending 7th Street through it, as has been recently advocated."[27] The public interest in reopening Seventh Street was never approved by the City, and Washington Square remained uninterrupted.

In their 1913 report, the Olmsted Brothers firm also commented on traffic difficulties along Walnut Street on account of the placement of the Fountain Society's watering trough, "the Walnut Street traffic, is interrupted, we understand, in the summer months by the stopping of horse-drawn vehicles at the horse trough opposite 7th Street. This trough should be removed and placed in some less important street, or at some point where this is an opportunity for teams to draw to one side out of the stream of traffic."[28] In 1916, the Bureau of City Property relocated the 1869 watering trough from its original location on Walnut Street near Seventh Street to the north side of Locust Street (now South Washington Street) in conjunction with narrowing the sidewalk along Walnut Street to make way for two trolley lines.[29] A curious letter from Chief of

Bureau of City Property to J.L. Bailey, President of the Philadelphia Fountain Society, in 1914 indicates that the watering trough was located on Sixth Street opposite Locust Street at that time.[30] However, no evidence has been found that ties the fountain to this location.

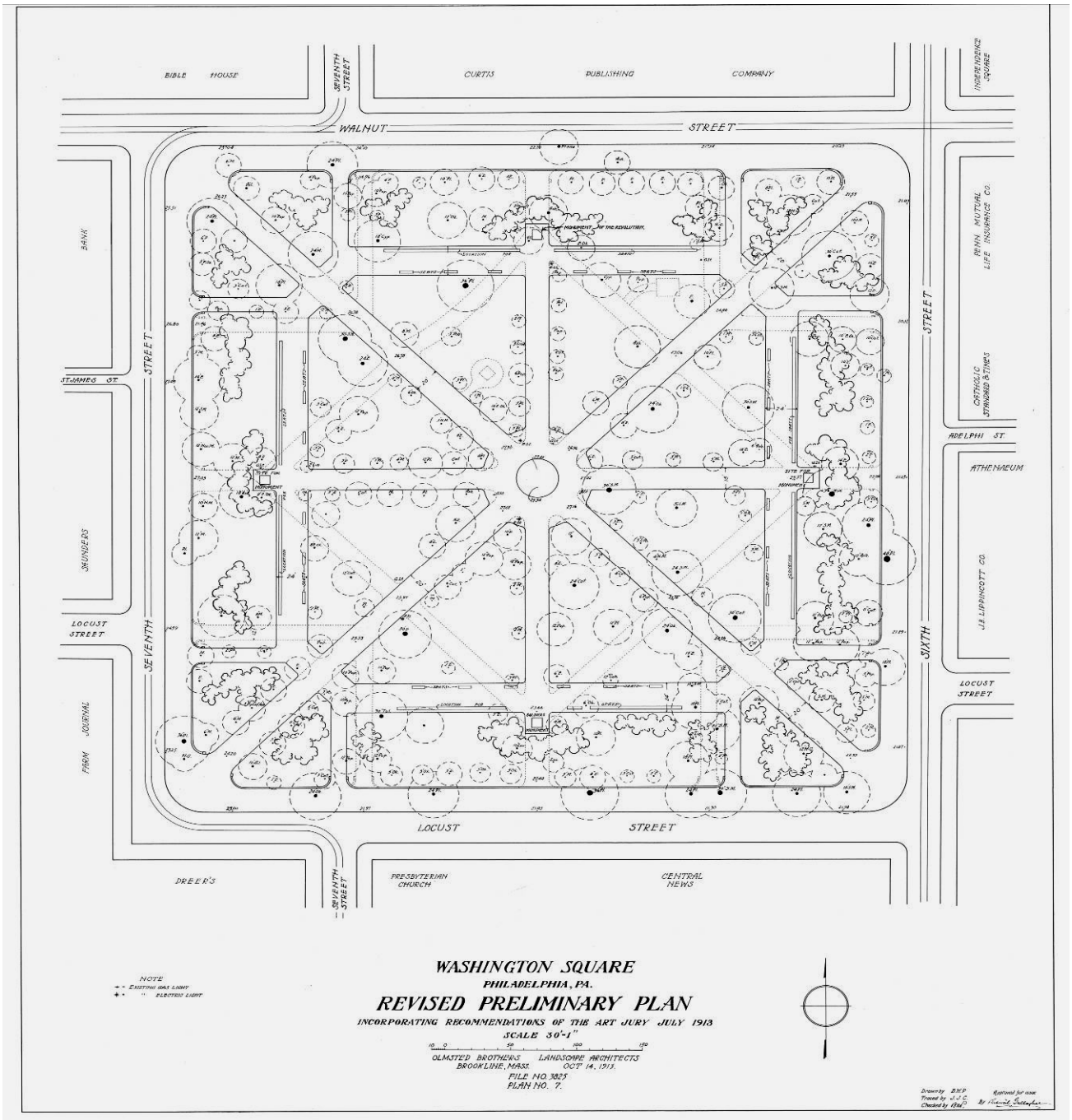


Figure 1.49: *July 1913 Olmsted Brothers' revised preliminary plan for Washington Square "incorporating recommendations of the Art Jury." The revised plan eliminated sand courts, circular flower beds, and the monument at the center of the square and proposed new locations for monuments mid-block along the interior walks. Note the location of the lavatory near the northeast corner of the square, and the guardhouse, just northwest of the center of the square, both shown with dashed lines (Frederick Law Olmsted NHS, Olmsted Archives).*



Figure 1.50: *Christmas tree in Washington Square, 1913, showing the portion of the Curtis Publishing Company building completed the previous year beyond. Note the presence of gas light fixtures and a low rail fence along the walks in the square (The Library Company of Philadelphia).*

Fairmount Park Commission, 1915

By City Ordinance of May 20, 1915, Washington Square was placed under the care and management of the Commissioners of Fairmount Park.[31] The Fairmount Park Commission worked collaboratively with the committee and the city on improvements to the square. In 1915, William F. Dreer undertook an existing conditions inventory with Raymond Pond, the new City Forester, identifying three hundred and eight trees of one hundred and sixteen varieties, as well as some trees to be removed.[32] Mr. Dreer also thought that "an important feature of the future welfare of the proposed planting of the square would be to have some sort of an irrigation system comprised in the proposed plan, which was also generally agreed to."[33] This was the first reference to irrigation in the square, although whether it was installed at the time is unknown. On June 21, 1915, "it was suggested by Mr. Bok, and agreed to, that the Association apply to the Fountain Society, of which Mr. Joshua D. Bailey is President, for funds for the fountain proposed in the Olmsted Brothers plan. The final Olmsted Brothers' plan has not been located and there is no evidence that the fountain was constructed.



Figure 1.51: *Pre-1916 hand-colored postcard of a southeast view of Washington Square with the Washington Grays monument in the center. The old gas light pole has been removed from the left of the walk (where 6867 is written on the card), which is shown in the April 1913 photograph of the same view (Figure 1.46). There is no evidence that vegetation on the square included as many flowering plants as are shown in this photograph. Rather, the colorful vegetation is likely the result of hand-coloring the black and white image.*

However, other improvements consistent with the recommendations of the Olmsted Brothers firm were undertaken in 1915. Given the excellent condition of the existing flagstone (bluestone) pavement,[34] it appears that the material was reused from the Dixey era design.[35] During the summer, Italian workers excavating along the western side of the square for sewer relocation, turned up bones from the burial of Revolutionary War soldiers.[36]

In 1916, the Bureau of City Property reported contracting for the relocation of the Revolutionary War Soldiers' and the Washington Grays Monuments.[37] The Washington Grays monument was moved to the west side of the square to front on Seventh Street,[38] consistent with the Olmsted Brothers' revised design plan (Figures 1.51 and 1.52). The Revolutionary War Soldiers' monument was moved to the northeast quadrant of the square.[39] It is unclear if the monument was ever placed on the northern side of the square, mid-block, as recommended on the Olmsted Brothers' revised design plan.

Photographs from the era show that shrub planting was undertaken along the perimeter of the square to provide a sense of enclosure, consistent with the Olmsted Brothers' recommendations (Figures 1.53 and 1.28).



Figure 1.52: *1916 photograph looking toward Independence Square with both the Curtis Publishing building (left) and the Penn Mutual building (right) complete. The Washington Grays monument is shown at the center of the square (The Print & Picture Collection, Free Library of Philadelphia).*



WASHINGTON AND INDEPENDENCE SQUARES, 1917

Figure 1.53: *1917 view of the State House taken from near the northeast corner of Washington Square. New shrub planting is visible along the perimeter of the square (*Early Philadelphia *by J.B. Lippincott).*



Figure 1.54: *1919 aerial photograph of Washington Square showing the Olmsted Brothers renovations complete. Note the connection on the diagonal with Independence Square on the right side of the image. This view predates the planting of Ginkgos along the perimeter of the square, which started sometime after 1921 (The Print & Picture Department, Free Library of Philadelphia).*

Washington Square from the 1920s to the 1940s

By 1920, The Fairmount Park Commission was considering additional improvements around the perimeter of the square. On November 13, 1920, J.K. Lloyd prepared a plan for additional tree planting, which was approved by the chief engineer to the commissioners of Fairmount Park on January 5, 1921 (Figure 1.56). The plan called for the addition of sixty-three street trees in the sidewalks surrounding the square, as well as seventeen new trees within the square, along its perimeter, including Ash, Elm, Gingko, Honey Locust, Horsechestnut, Kentucky Coffeetree, Red Oak, Silver Linden, Sycamore Maple, Tulip Poplar, and Umbrella Magnolia. Although street tree species are not indicated, a later historic aerial photograph shows that young street trees were in place by 1927 (Figure 1.61), and an even later photograph shows that mature Gingko surrounded by the square by the 1941 (Figure 1.63).

Few other improvements to the square are documented in the 1920s, perhaps on account of the city's $5 million expenditure on the Sesquicentennial celebration in Fairmount Park in 1926; a lack of civic unity as a result of postwar unemployment, several bank failures between 1919 and 1924, a building and loan scandal with the closing of seventeen associations, the closing of three stock brokers' businesses in 1922, and prohibition from 1922 to 1930; as well as the Great Depression.[40]

Nonetheless, in the 1920s Washington Square remained a popular destination for office workers, residents, and visitors. A twenty-story addition to the Penn Mutual Life Insurance Company building at the intersection of Sixth and Walnut Streets opened in 1930[41], resulting in more office workers in the neighborhood. The onset of the Great Depression in 1929 undoubtedly placed greater stress on public amenities, such as Washington Square. Before the stock market crash in the fall of 1929, more than ten percent of the city's wage earners were unemployed. By April 1930, over just six months, the rate had risen to fifteen percent.[42] A photograph from 1932 shows women resting on benches in the square, despite the winter season (Figure 1.62). As the nation was pulling out of the depression, an open air library was held in the square during the summer of 1934, sponsored by the Federation of Women's Clubs with Howard A. Gamble, librarian.[43]

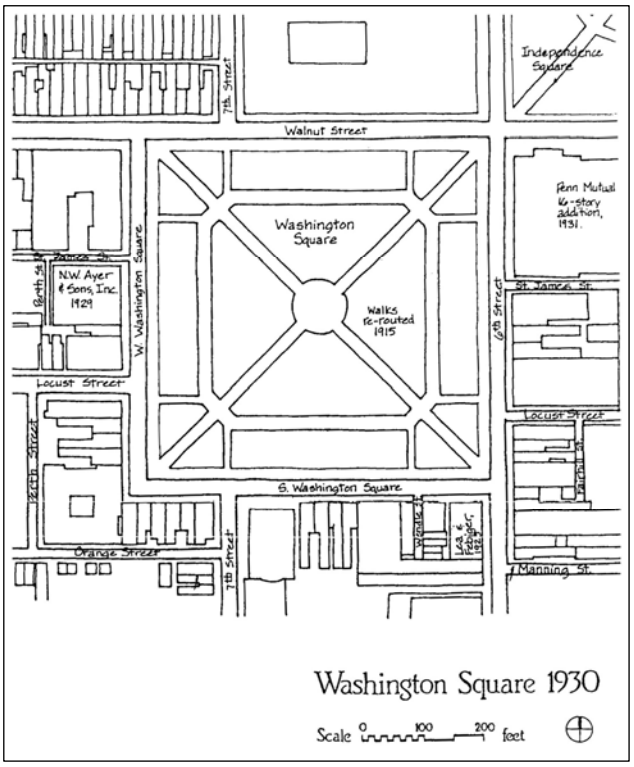


Figure 1.55: *Denise Rabzak's period diagram for Washington Square, 1930, showing walks reoriented within the square (Washington Square in Historic Society Hill: A Site Plan Chronology, 1683-1984).*

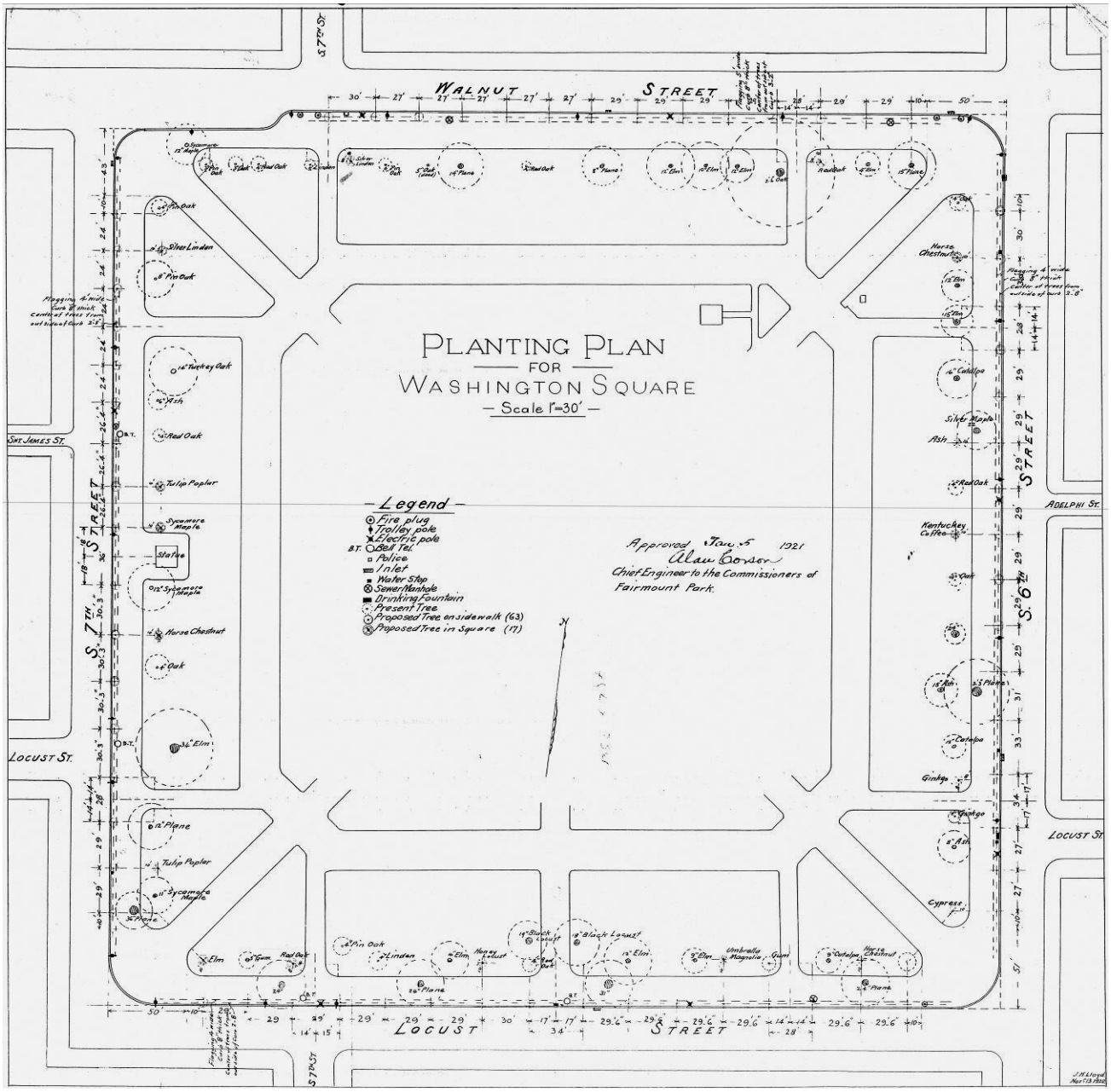


Figure 1.56: *1920 planting plan for improvements to the perimeter of the square, including street tree planting, by J.K. Lloyd, November 13, 1920, approved by the chief engineer to the commissioners of Fairmount Park on January 5, 1921 (Independence National Historical Park).*



Figure 1.57: *1926 photograph showing the lavatory building near the northeast corner of Washington Square. The photograph shows shrub planting around the building. Note the presence of both mature and young trees on the square, as well as paved and unpaved paths. The lavatory is first documented in an 1898 letter and last documented standing in 1952 (The Athenaeum of Philadelphia, Washington Square Association Collection).*



Figure 1.58: *Circa 1927 photograph along the eastern side of Washington Square showing an old gas lamp. The square transitioned from gas to electric lights during the early 1900s. The lavatory building is visible on the left side of the photograph, along with benches and a trash receptacle along the interior walks. The Olmsted-designed shrub planting and new, wrapped trees are present at the entrance to the square, which is marked with stone piers. The low bluestone curb along interior walks and the 9" granite curb at the perimeter of the square are both visible in the photograph (The Historical Society of Pennsylvania, Penrose Collection).*



Figure 1.59: *January 1927 photograph of residences along the western side of the square between Walnut and Locust Streets, demolished in 1929 to make way for the N.W. Ayer building. This photograph also shows benches along the interior walk, with substantial shrub planting along the perimeter of the square (NW Ayer Advertising Agency Records, Archives Center, National Museum of American History, Smithsonian Institution).*



Figure 1.60: *Hand-colored postcard view of Washington Square by Curtis Publishing Company postmarked 1932, looking northeast across the square toward the Curtis Publishing (left) and Penn Mutual (right) buildings. The niche along Seventh Street/Washington Square West for the Washington Grays monument is visible on the left side of the image.*



Figure 1.61: *August 11, 1927 aerial photograph of the northeast corner of Washington Square (left) showing young street trees along Walnut and Sixth Streets. Independence Square is also visible at right (Print & Picture Collection, Free Library of Philadelphia).*



Figure 1.62: *Women and children near the east side of Washington Square along Sixth Street in January 1932, during the Great Depression. The lavatory building is visible in the shrub planting beyond, right (Temple University Libraries, Urban Archives, Philadelphia Pennsylvania).*

In the late 1930s, the Society of Little Gardens was involved with additional planting in the square. A letter from Sidney Jenkins of the *Farm Journal* to Willis H. Satterthwaite of Penn Mutual indicates that Jenkins "met a Miss Katherine N. Bradford who talked to me about the planting done by the Society of Little Gardens in Washington Square in 1937…she tells me that they arranged for the planting of five trees of which all but one are now gone….I am enclosing a copy of the bill that they received from the Andorra Nurseries listing the varieties."[44] The order from October 25, 1937, included 1 Tulip Poplar, 1 Sweet Gum, 1 Pin Oak, 1 Washington Thorn, 1 *Amalanchier Canadensis* [*sic*], and 1 ton of well rotted cow manure. The only tree planted by the Society of Little Gardens that remained standing in 1965 was the Pin Oak.[45] Presumably the plantings were in celebration of the Sesquicentennial of the signing of the Constitution, as similar commemorative plantings were underway on Independence Square at the same time by the Daughters of the American Revolution.[46]

A 1941 photograph from the *Philadelphia Inquirer* shows an artist examining the Gingko tree near the watering trough along Locust Street (now South Washington Square). The caption indicates that at the time, eighty Gingko trees imported from the Orient surrounded the square (Figure 1.63).[47] The planting plan approved in January 1921, is the first

to show Ginkgos surrounding square (Figure 1.56), They were planted sometime between in or after 1921 as the trees do not appear definitely in photographs until after 1927 (Figures 1.54, 1.63)[48] Another *Philadelphia Inquirer* photograph from 1941 shows citizens resting on benches of various styles within the square (Figure 1.64).[49] Like the photograph of women and children in the square during the Great Depression (Figure 1.62), this photograph shows that the square was also heavily used while the nation was involved in World War II.

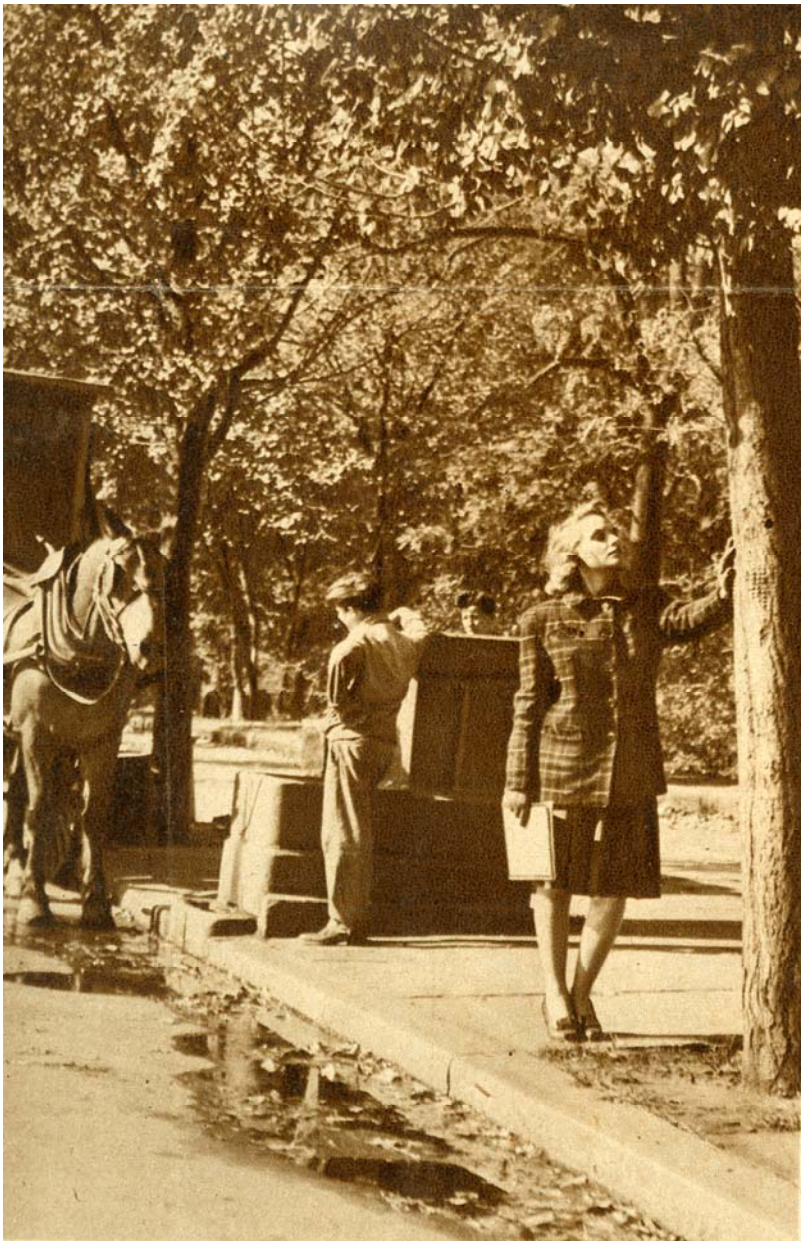


Figure 1.63: *1941 Philadelphia Inquirer photograph along South Washington Square showing Gingko trees around the perimeter of the square, as well as the fountain after it was relocated in 1916. Note that the perimeter sidewalk is comprised of bluestone slabs (Print & Picture Collection, Free Library of Philadelphia).*



Figure 1.64: *1941 photograph looking northeast toward the intersection of Sixth and Walnut Streets from near the center of the square. Note the presence of two different bench styles in the square (Print & Picture Collection, Free Library of Philadelphia).*

Like the Great Depression era, during World War II there was little evidence of public improvements to Washington Square, although photographs of the era show intensive public use (Figure 1.64). As World War II came to an end in 1945, the nation and the City of Philadelphia experienced an economic shock. In Philadelphia, the Navy halted construction of at least twelve warships underway, leaving thousands jobless.[50]

In 1947, Democrat Richardson Dilworth ran for mayor of Philadelphia riding on Roosevelt's post-war ideals. He was defeated by the incumbent Republican mayor Bernard Samuel, but a new political force had arisen, which would have a dramatic impact upon the city beginning with Dilworth's administration in 1949.[51]

By 1947, the city was contemplating new public improvements. Despite the earlier recommendations of the Olmsted Brothers firm, in March 1947, the Fairmount Park Commission approved the city's request for a traffic cut-off for Seventh Street that severed the northwest corner of Washington Square. The cut-off was designed to ease traffic at its intersection with Walnut Street (Figure 1.66).[52] Around the same time, the City Planning Commission (est. 1929) was considering other, larger traffic improvements as well, including the widening of Vine Street (I-676) to comprise the northern part of the Center City Expressway. This much larger and ambitious project included the demolition of many buildings for the twelve lane highway.[53]



Figure 1.65: *1927 view of the northwest corner of Washington Square at the intersection of Seventh and Walnut Streets, where a curb bump-out accommodated trolley lines along Walnut Street. The photograph shows shrub planting at the entrance to the square, as well as a tree growing in the sidewalk near the entrance to the square. The sidewalks were surfaced with stone slab paving, likely bluestone (Philadelphia City Archives).*

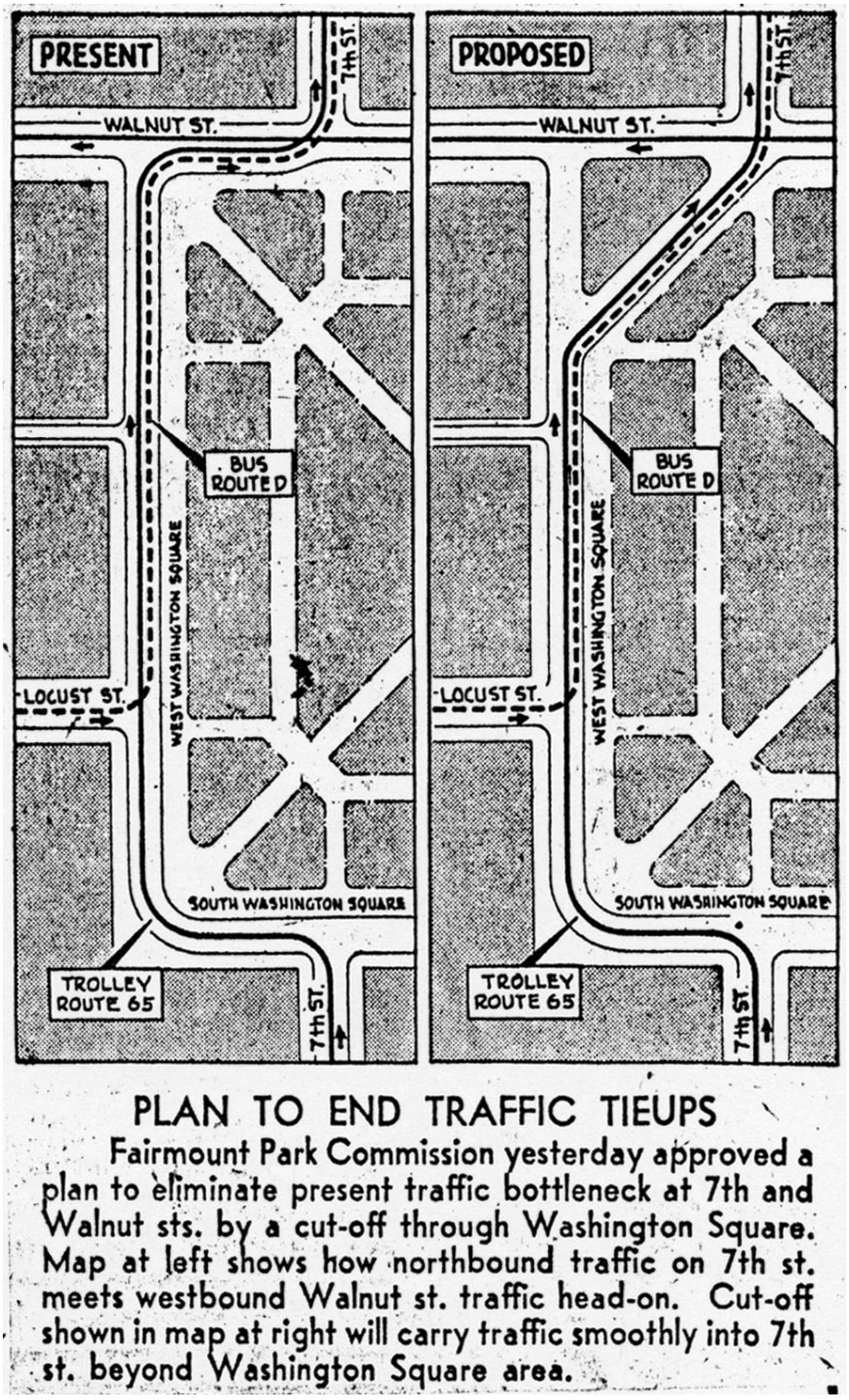


Figure 1.66: *March 14, 1947 diagram from the Philadelphia Inquirer showing the traffic cut-off at the northwest corner of the square, which was implemented later that year (Philadelphia Inquirer).*

Independence National Historical Park

Congress authorized Independence National Historical Park in 1948 for the purpose of "preserving for the benefit of the American people, historical structures and properties of national significance associated with the American Revolution and the founding and growth of the United States."[54] Early in 1949, the Public Works Council held hearings on an agreement between the city and state to establish a mall.[55] By 1950, the National Park Service developed a relationship with the City of Philadelphia for the care of Independence Square. On January 1, 1951, National Park Service assumed management of Independence Square through a cooperative agreement with the City.[56] Independence National Historical Park was officially established on July 4, 1956. The area of the park includes historic and reconstructed eighteenth century buildings that contribute to the founding and growth of the United States.



Figure 1.67: *December 15, 1931 aerial photograph of Washington Square and Independence Square (beyond) showing the narrow passage between the Curtis Publishing Company building and the Penn Mutual building that still characterizes the relationship between the two squares today (Independence National Historical Park).*

Summary, 1913-1952

The Washington Square Improvement Association's interest in the square marked the transition from the period of decline associated with the economic hardship of the 1890s toward a renewed civic interest. The Olmsted Brothers design of 1913 simplified the arrangement of walks by eliminating the entrances at mid-block, but retained the strong diagonal from each corner, with each corner entrance composed of three paths (corner and each perpendicular street). The inner path was re-aligned into a square parallel to the surrounding streets, rather than on the diagonal, as they were in Dixey's design. The Olmsted Brothers' plan was implemented in 1915, when the Fairmount Park Commission assumed control of the square. It appears that the existing flagstone (bluestone) pavement was reused from the Dixey era design.

In 1913, renewed interest surfaced to continue Seventh Street through the square to improve trolley circulation, but this initiative was fortunately never approved by the city. However, in 1947, an additional proposal to cut off the northwest corner of the square at the intersection of Seventh and Walnut Street was implemented. The Olmsted plan had recommended four specific locations for memorials/monuments at mid-block locations around the periphery of the square, but citizens continued to advocate unsuccessfully for new monuments in other locations to memorialize prominent individuals, such as General Anthony Wayne. In 1916, the Philadelphia Fountain Society watering trough, Washington Grays Monument, and D.A.R. Monument to the Revolution were relocated within the square. In the 1920s, street trees were added to the sidewalk around the square, as documented in a Fairmount Park Commission planting plan and later photographs.

During this period, citizen committees helped to raise funds for ongoing improvements including tree planting, electric lights, and benches, and in the summer of 1934, the Federation of Women's Clubs sponsored an open air library in the square. In 1937, the Society of Little Gardens planted additional trees in Washington Square. However, very few changes, other than the aforementioned Seventh Street cut-off, were implemented in the square in the 1930s and 40s, so that the general layout of the Olmsted plan remained during this period.

Endnotes

[1] Minutes of a meeting of the property owners surrounding Washington Square, Philadelphia, 9 January 1913.

[2] "Urges Display of Relics; C.F. Jenkins Says Phila. Should Capitalize Historical Treasures." *Philadelphia Inquirer* 181:45 (14 August 1919): p. 5.

[3] "Horticultural Society Officers." *The Philadelphia Inquirer* 135:169 (16 December 1896): p. 7.

[4] *Public Ledger*, 13 July 1924, Old Town Historical Society, Box 1, Athenaeum, as referenced in Anna Coxe Toogood, Historian, National Park Service, Independence National Historical Park. "Cultural Landscape Report, Independence Square, Volume One, Historical Narrative," 2004, p. 276.

[5] W.H. Ball, Chief, Bureau of City Property to Percival Gallagher, 10 January 1913.

[6] Minutes of Meetings, 16 January 1914, Washington Square Association Collection, Box 1, Athenaeum, as referenced in Toogood. "Cultural Landscape Report, Independence Square," pp. 275-276.

[7] Charles F. Jenkins, Washington Square Improvement Association, to Olmsted Brothers [Percival Gallagher], 22 January 1913.

[8] Olmsted Brothers to Charles Francis Jenkins, 22 April 1913, p. 2.

[9] Ibid.

[10] Percival Gallagher to Charles F. Jenkins, 11 June 1913.

[11] Olmsted Brothers to Charles Francis Jenkins, 22 April 1913, pp. 2-3.

[12] P.G. [Percival Gallagher], Olmsted Brothers, to Charles F. Jenkins, Washington Square Improvement Association, 22 April 1913, pp. 11-12.

[13] Ibid., p. 11.

[14] Andrew Wright Crawford, Assistant Secretary, Art Jury, to Percival Gallagher, 15 July 1913.

[15] "Washington Square, Philadelphia, Visit by A.C.M.," notes of 17 July 1913 visit with Andrew Wright Crawford, Paul Cret, Eli K. Price, and Gregroy ?

[16] Ibid.

[17] Art Jury to Charles F. Jenkins, 1 November 1913.

[18] Olmsted Brothers (P.G) to Charles Francis Jenkins, 22 April 1913, pp. 14-15.

[19] Percival Gallagher, Olmsted Brothers, to Charles F. Jenkins, Secretary, Washington Square Improvement Association, 11 June 1913.

[20] W.H. Ball, Chief of Bureau of City Property, to Olmsted Brothers (P.G.), 11 June 1913.

[21] Minutes of a meeting of the Committee interested in the improvement of Washington Square, Philadelphia, 13 April 1914.

[22] Horace Wells Sellers to Percival Gallagher, 22 April 1913.

[23] Percival Gallagher to Horace W. Sellers, 2 May 1913.

[24] Minutes of a meeting of the Committee interested in the improvement of Washington Square, Philadelphia, 13 April 1914.

[25] William H. Shelmerdine. "Straighten Seventh Street." *Ledger*, 15 July 1913.

[26] Charles F. Jenkins, Washington Square Improvement Association, to Percival Gallagher, Olmsted Brothers, 15 February 1913.

[27] Olmsted Brothers to Charles F. Jenkins, Washington Square Improvement Association, 22 April 1913, p. 8.

[28] Ibid., p. 7.

[29] Bill Double. "A Modest Fountain on the Square." *Pennsylvania Heritage* (Summer 2009): p. 12.

[30] W.H. Ball, Chief Bureau of City Property, to J.L. Bailey, President Philadelphia Fountain Society, 21 January 1914.

[31] *Laws, Ordinances and Regulation Relating to Fairmount Park and Other Parks under the Control of the Fairmount Park Commission*. Philadelphia, PA: Printed for the Commission, 1933, p. 352.

[32] "Washington Square to be Beautified by New Trees," *Public Ledger*, 22 December 1915, Free Library, as quoted in Denise R. Rabzak for the National Park Service, Independence National Historical Park. "Washington Square: A Site Plan Chronology, 1683-1984," May 1987, p. 22.

[33] Minutes of a meeting of the Washington Square Improvement Association, Philadelphia, 21 June 1915.

[34] P.G. [Percival Gallagher], Olmsted Brothers, to Charles F. Jenkins, Washington Square Improvement Association, 22 April 1913, p. 5.

[35] Percival Gallagher to Charles F. Jenkins [cost estimate], 11 June 1913, p. 1.

[36] "Human Bones Exhumed in Washington Square," *Public Ledger*, 9 June 1915, p. 1, as referenced in Rabzak. "Site Plan Chronology," p. 22.

[37] Double. "A Modest Fountain on the Square," p. 12.

[38] Kennedy, Arthur M. "Philadelphia's Washington Square: An Address Delivered by Arthur M. Kennedy before the Germantown Historical Society, February 17, 1942," p. 10. Francis James Dallett. *An Architectural View of Washington Square*. Frome, England: Butler & Tanner, 1968, p. 25.

[39] Double. "A Modest Fountain on the Square," p. 12.

[40] Arthur P. Dudden. "The City Embraces 'Normalcy' 1919-1929." In Russell F. Weigley, ed. *Philadelphia: A 300-Year History*. New York, NY: W.W. Norton & Company, 1982, pp. 571-6.

[41] Margaret B. Tinkcom. "Depression and War." In Russell F. Weigley, ed. *Philadelphia, A 300-Year History*. New York, NY: W.W. Norton & Company, 1982, p. 602.

[42] Ibid., p. 609.

[43] "Open Air Library in Washington Square," *Philadelphia Record* photographs at HSP, 1934.

[44] Sidney Jenkins, Farm Journal, to Willis H. Satterthwaite, Penn Mutual, 8 June 1965.

[45] Katherine N. Bradford, Society of Little Gardens, to Sidney Jenkins, Farm Journal, 31 May 1965.

[46] Joe Crystal, et. al. Independence National Historical Park, National Park Service. "Cultural Landscape Report, Independence Square, Volume 2," 1998, p. 41.

[47] *Philadelphia Inquirer*, 1941.

[48] Aerial photograph of Washington Square, 1919.

[49] *Philadelphia Inquirer*, 1941.

[50] Tinkcom. "Depression and War," p. 645.

[51] Ibid., pp. 651-654.

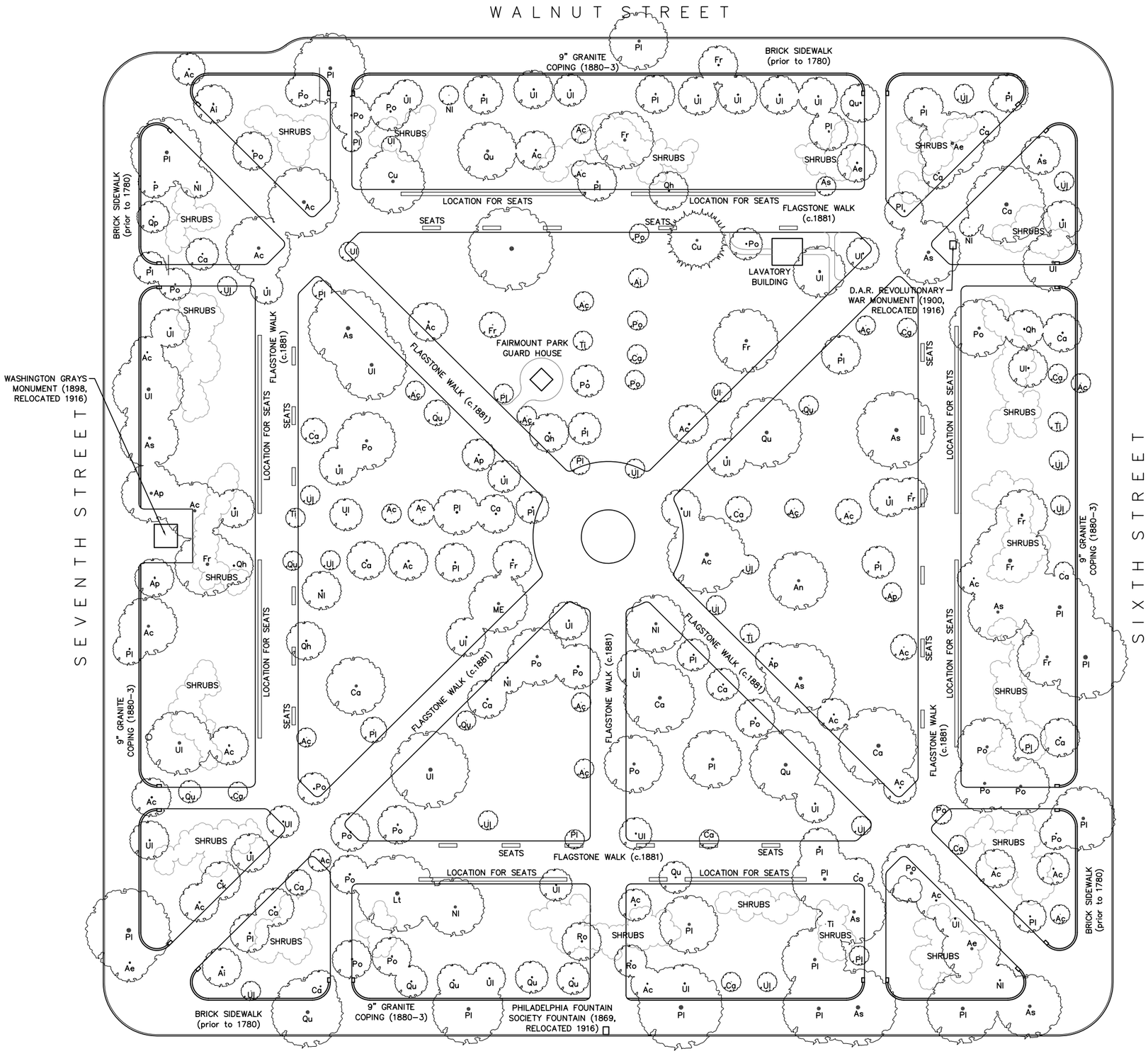
[52] "Washington Sq. Cut-Off Approved by Park Board." *The Philadelphia Inquirer*. 14 March 1947.

[53] Philadelphia Planning Commission. "Philadelphia Expressway Program," 1947.

[54] Public Law 795, 80th U.S. Congress, approved on June 28, 1948.

[55] Constance Grieff. *Independence: The Creation of a National Park*. Philadelphia, PA: University of Pennsylvania Press, 1987, p. 68.

[56] Crystal, et. al. "Cultural Landscape Report, Independence Square, Volume 2," p. 43.



VEGETATION LEGEND

Ac	Acer sp. (M.)
Ap	Acer platanoides (N.M.)
An	Acer saccharinum (Sil. M.)
As	Acer saccharum (S.M.)
Ae	Aesculus sp. (H.C.)
Ai	Alianthus sp. (Ail.)
Ca	Catalpa sp. (Cat.)
Ck	Cladrastis kentukea (Ky. Coffee)
Cu	Cupressus sp. (Cyp.)
Fr	Fraxinus sp. (Ash)
Lt	Liriodendron tulipifera (Tul.)
ME	1 unknown (ME)
NI	Species not indicated
P	1 unknown (P)
Pl	Platanus sp. (Pl. or Plane)
Po	Populus sp. (Pop.)
Qu	Quercus sp. (Ok.)
Qp	Quercus palustris (P. Ok.)
Qh	Quercus phellos (E. Ok.)
Ro	Robinia sp. (Loc.)
Ti	Tilia sp. (Lime)
Ul	Ulmus sp. (E.)

Note: Plant identification key in parenthesis above shows original notation from 1913 Olmsted Brothers' plan. Plant identification keys shown on drawing to left represent the assumed species name, as the original plant list for the 1913 Olmsted Brothers' drawing of Washington Square has not been located.

PENNSYLVANIA – SPC – SOUTH
NAD 83
NAVD 88

15 0 30 60
SCALE IN FEET

1917 Period Plan

Washington Square

Independence National Historical Park

Philadelphia, Pennsylvania

Prepared by:

DHM Design

Pressley Associates, Landscape Architects

with
RK&K

SOURCES:
1. JULY 1913 "WASHINGTON SQUARE, PHILADELPHIA, PA, REVISED PRELIMINARY PLAN, INCORPORATING THE RECOMMENDATIONS OF THE ART JURY, JULY 1913," FREDERICK LAW OLMSTED NATIONAL HISTORIC SITE, OLMSTED ARCHIVES.
2. 1919 AERIAL PHOTOGRAPH OF WASHINGTON SQUARE, FREE LIBRARY OF PHILADELPHIA, PRINT AND PICTURE DEPARTMENT.
3. NOVEMBER 13, 1920 PLANTING PLAN FOR WASHINGTON SQUARE BY J.K. LLOYD, INHP ARCHIVES.

DRAWN BY: CMB

CHECKED BY: LGM

DATE: SEPTEMBER 2010, REV. FEBRUARY 2011

SHEET	DRAWING NO.
1 of 1	391/105,616

Brumbaugh Plan, 1952-1990

Washington Square Planning Committee

Over the years of community interest in the square, the composition of interested committees had changed from government to residents to 'property owners' to representatives from businesses. In June 1952:

> Representatives of eleven major corporations surrounding the Square met for the first time to establish a program for rebuilding the Square so as to enhance its utility as a public park, and to devise means of educating the public of the historical significance of the Square as the major graveyard of American Revolutionary dead…A planning committee [the Washington Square Planning Committee] was appointed at the aforesaid meeting and instructed to undertake an overall survey and to develop various plans for the square.[1]

In December 1953, the Fairmount Park Art Association, "a non-profit corporation created for the purpose of promoting and fostering the beautiful in the City of Philadelphia," entered into an agreement with the Committee for the improvement of Washington Square.[2] G. Edwin Brumbaugh was selected as the architect, with Thomas W. Sears as the landscape architect.

G. Edwin Brumbaugh (1890-1983) attended the architecture program at the University of Pennsylvania, School of Fine Arts from 1908 to 1913, where he followed a curriculum based heavily on the principles of Beaux-Arts planning. Brumbaugh graduated at the top of his class and took a job as a draftsman at the architectural firm of Mellor & Meigs for a year.[3] Later, while working at the architectural firm of Charles Barton Keen, Brumbaugh opened his own practice. Despite its damaging impact on most fields, the Great Depression created an opportunity for Brumbaugh to shift his architectural practice from new construction to restoration, encouraged by the work at Colonial Williamsburg beginning in 1926. Landscape architect Thomas Warren Sears (1880-1966) attended Harvard, receiving a Bachelor of Arts degree in 1903 and a Bachelor of Science in landscape architecture in 1906. In addition to his career in landscape architecture, Sears traveled extensively, indulging his passion in photography. Sears may have worked briefly in the office of the Olmsted Brothers, after which he practiced in partnership in Providence. Beginning in 1915, Sears was known for his work on the R.J. Reynolds estate, Reynolda in Winston-Salem, North Carolina. By 1917, he established an independent office in Philadelphia. Sears is best known as a designer of highly-refined traditional gardens, and many of his private clients lived in Main Line Philadelphia communities. Twice in his career, in 1941 and 1953, entire issues of *Architecture and Design* were dedicated to his work. Sears was elected a fellow of the American Society of Landscape Architects in 1921. He retired from practice in 1961.[4]

At the 1954 meeting of the Washington Square Planning Committee, Brumbaugh presented plans and specifications for the Colonial Revival style wall he proposed around the Square, covering a distance of 1,884 feet. The wall was intended "to unify the area and to provide a background for the memorial...the wall is patterned after those which were often built around the burial grounds of Colonial churches."[5] The Committee minutes show, "this treatment, which will be similar to 'St. Peter's Wall,' will be of definite 18th Century character and most appropriate in view of the Independence Mall project and the plans of the Independence National Historical Park."[6] By 1956, the brick wall was complete.[7] The general contractor was John W. Cornell and the wall was built under the supervision of John B. Kelly[8] (Figures 1.68 and 1.69).



Figure 1.68: *Circa 1956 photograph showing construction of the Colonial Revival style perimeter wall underway. It appears that the new brick wall was constructed on top of the existing granite curb, which is shown during resetting above. New bricks are stacked on a pallet on the right side of existing bluestone perimeter sidewalk (Athenaeum of Philadelphia, Washington Square Association Collection).*



Figure 1.69: *Northwest corner of Washington Square in 1956, showing the Seventh Street cut-off, perimeter wall, and Franklin-style lights in place. Shrub planting is visible inside the perimeter fence (Temple University Libraries, Urban Archives, Philadelphia Pennsylvania).*

Also at the 1954 meeting, landscape architect Thomas W. Sears, "reported that his suggested plans for landscaping and planting of Washington Square remained virtually the same as previously presented – the removal of 36 of the present 255 trees, the planting of 4 new trees, the extensive planting of shrubs, dogwood and bulbs as ground cover as well as the placing of spring and fall flowers."[9] Soil studies undertaken previously by Messrs. Haas and Kelton in association with some planting were made available to the Committee.[10]

By September 1954, landscaping was underway, with forty trees removed by the Fairmount Park Commission, including four in addition to the thirty-six agreed upon in April.[11] The Minutes of the Meeting of Washington Square Planning Committee on September 20, 1954 indicate that the "Fairmount Park Commission has removed 55 trees," an additional fifteen trees to those agreed upon in April.[12] New plant material was inspected and tagged by Sears for installation, with evergreen material to be planted during September, deciduous material in late October and November, and larger trees during the winter months.[13] Some trees and

shrubs were to be donated to the project by the Fairmount Park Nursery, while other trees, shrubs, and groundcover were to be purchased from Richard Schwobel, along with bulbs from Charles H. Mueller. [14]



Figure 1.70: *Circa 1952 sketch by G. Edwin Brumbaugh for electric lights in Washington Square showing the Franklin-style light fixtures (Courtesy, The Winterthur Library: Joseph Downs Collection of Manuscripts and Printed Ephemera).*

New lighting in Washington Square was modeled after the 1916 American Institute of Architects improvements to Independence Square. Brumbaugh wrote to Harry Batten, "the Independence Hall posts are similar to those shown on early nineteenth century Birch engravings of the city. I doubt whether research will reveal a more appropriate design."[15] The William Birch engravings of old Philadelphia were studied, along with Benjamin Franklin's writings. Brumbaugh developed a lamp design that adapted Franklin's gas lamp design to electricity (Figure 1.70).[16] Models were made and tested in the square to determine the appropriate scale and best effect for maximum illumination.[17] Charles S. Leopold served as the lighting consultant on the project. In total, fifty-four Franklin-style lamps were erected in Washington Square.[18] "They are mounted 13 feet above ground on cast iron posts. The posts will be painted white and the lamps painted black. The posts are square with beveled edges, copying the wooden posts used in colonial days."[19]



Figure 1.71: *Circa 1952 G. Edwin Brumbaugh sketch for the entrance to Washington Square showing what is likely the Letitia Street House, formerly known as the William Penn House, which was then proposed for relocation in the square (Courtesy, The Winterthur Library: Joseph Downs Collection of Manuscripts and Printed Ephemera).*

In 1954, the City also planned to install mercury lamps along the four streets bounding the square.[20] That year, the installation of heavy underground electrical equipment by the Philadelphia Electric Company damaged the flagstone walks that bordered Sixth Street. "Mr. Fuller and Mr. Batten agreed to call on Mr. R.G. Rincliffe, President of the Philadelphia Electric Company, to suggest that his company repair the outside flagstone walk… Approximate cost of this work is $5,000"[21] (Figure 1.58).

In the early 1950s, a number of other proposals for the square were also put forth, including the relocation of the Letitia Street House, formerly known as the William Penn House, a two-story brick structure, from Lansdowne Drive just above Girard Avenue, to Washington Square. At the time, access to the historic house was proposed to be cut off by construction of the Schuylkill Expressway. Eventually this proposal was rejected (Figure 1.71).

In 1952, the issue of public lavatories again emerged. A plan of the existing and suggested public lavatories is shown in a memorandum from LeRoy E. Varner to Mr. Herbert Adam dated May 26, 1952. In the memorandum, Varner indicates, "the existing lavatory facilities are very old. The rooms are dirty and poorly lit. There is water on the floor, and since the door stands open most of the time there is very little privacy."[22] The existing lavatory was located near the northeast corner of the square, inside the interior circuit walk; however, it is not clear if the lavatory was renovated at this time (Figure 1.72).

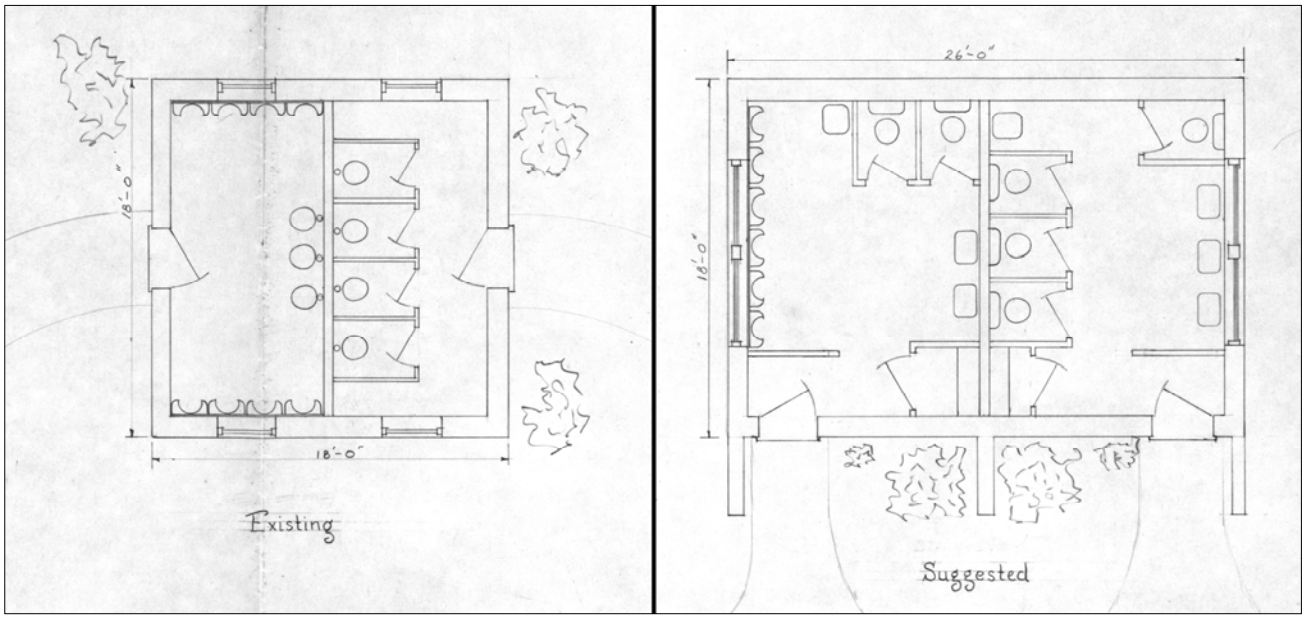


Figure 1.72: *1952 plans by LeRoy E. Varner showing existing and proposed lavatories for Washington Square [enlarged] (Athenaeum of Philadelphia, Washington Square Association Collection).*

Memorial to the Unknown Revolutionary War Soldier

The Washington Square Planning Committee also revived the movement to memorialize George Washington in the square that carried his name. In December 1953, Malcolm Adam, chairman of the Washington Square Planning Committee, launched the fund drive to construct the long-awaited monument to Washington as a part of the Memorial to the Unknown Revolutionary War Soldier. In 1956, the Committee commissioned G. Edwin Brumbaugh to design a monument to be located on the northern side of the square off of the central plaza, although ultimately the statue was erected with the Revolutionary War monument centrally located on the west side of the square. "Brumbaugh also told the Commissioner a base had been laid for a statue of Washington in 1833, and it was their intention to uncover this base and place the statue on it."[23] (It is not known if the base was ultimately uncovered.)

The statue on the monument is a bronze replica of Jean Antonie Houdon's standing figure of Washington, commissioned by Thomas Jefferson in 1785. The original statue is the only full size statue of Washington done from life.[24] The words inscribed on the wall, "Freedom is a light for which many men have died in darkness" are the words of John J. Pullen, a copywriter in the 1950s for Washington Square publisher N.W. Ayer & Son.[25]

The Committee planned to exhume the body of a Revolutionary War soldier buried in Washington Square and inter it in a sarcophagus that rests below the statue of Washington. Faced with the challenge of distinguishing a Revolutionary War soldier from others buried in Washington Square, the Washington Square Planning Committee hired Lt. Col. Duncan Campbell, archaeologist and consultant to the State Museum; John Witthoft, director of the State Museum and former State anthropologist; and Joseph Holmes, aide to the state archaeologist.[26] A suitable skeleton was uncovered on November 20, 1956 after a five day search in the northwest corner of the square at a depth of about six feet. Careful research also went into each of the fourteen flags that flank the memorial, which represent the battle flags of the thirteen original colonies and the first American flag.[27] Construction documents for the memorial from 1956 show that the circular pool and fountain was installed at the same time in the center of the square. Brumbaugh suggested the fountain based on a photograph Mr. Orville Bullitt took of another fountain in France.[28]

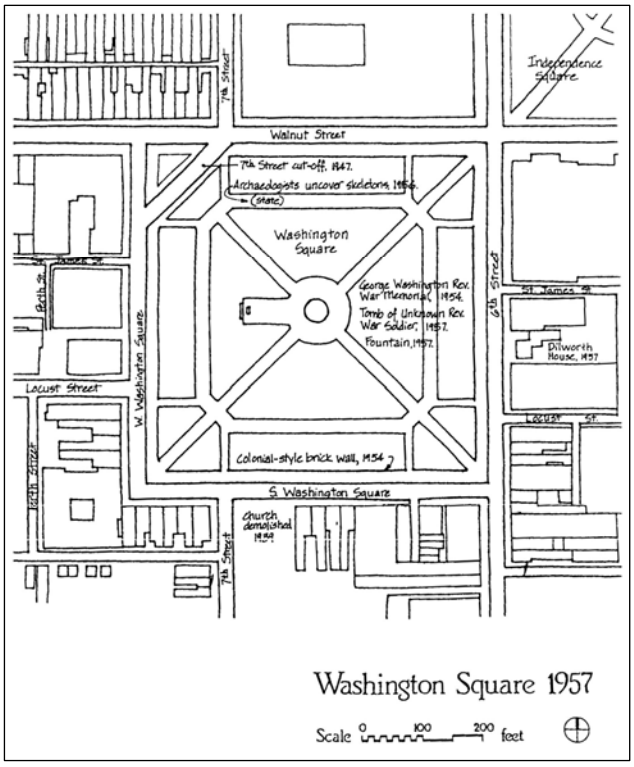


Figure 1.73: *Denise Rabzak's period diagram for Washington Square, 1957, showing the Seventh St. traffic cut-off in place and the perimeter wall and Memorial to the Unknown Revolutionary War Soldier complete (Washington Square in Historic Society Hill: A Site Plan Chronology, 1683-1984).*

Additional bluestone paving for the memorial was provided by the Fairmount Park Commission.[29] Lighting for the Memorial to Unknown Revolutionary War Soldier and fountain was completed by Independent Wiring Company, Electrical Engineers and Contractor of Philadelphia.

J.S. Cornell & Son, Carpenters and Builders, 1528 Cherry Street executed the majority of work.[30] On June 21, 1957, the memorial was dedicated. Thomas S. Gates Jr., Secretary of the Navy, spoke to two hundred guests[31] (Figures 1.74 and 1.75). Plans and sketches of the memorial in the Brumbaugh collection at the Winterthur Library are titled by Brumbaugh in a variety of ways (See Figures 1.74 and 1.75). It is not known when the memorial was given its current name, Memorial to the Unknown Revolutionary War Soldier.

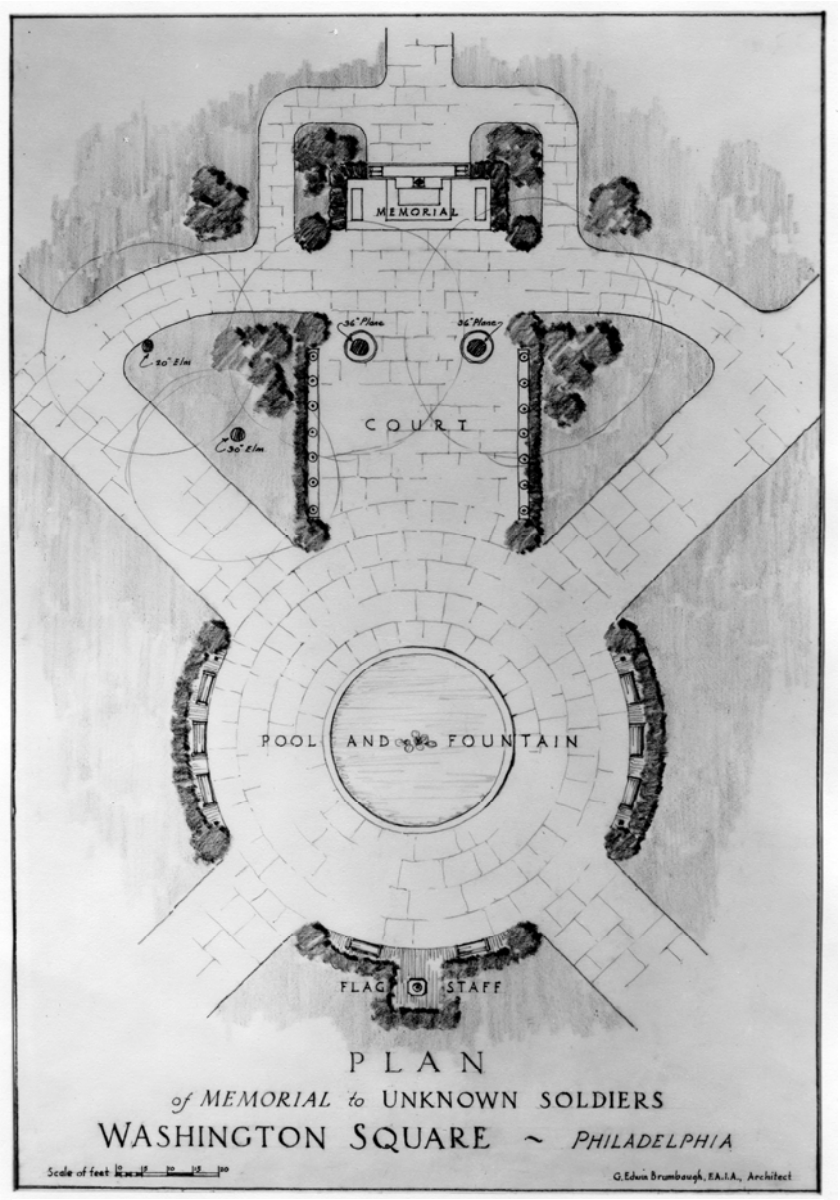


Figure 1.74: *Circa 1952 plan by G. Edwin Brumbaugh of his proposed Memorial to the Unknown Soldiers, now known as the Memorial to the Unknown Revolutionary War Soldier. As the design was executed, it excluded the side and rear approaches to the memorial (Courtesy, The Winterthur Library: Joseph Downs Collection of Manuscripts and Printed Ephemera).*

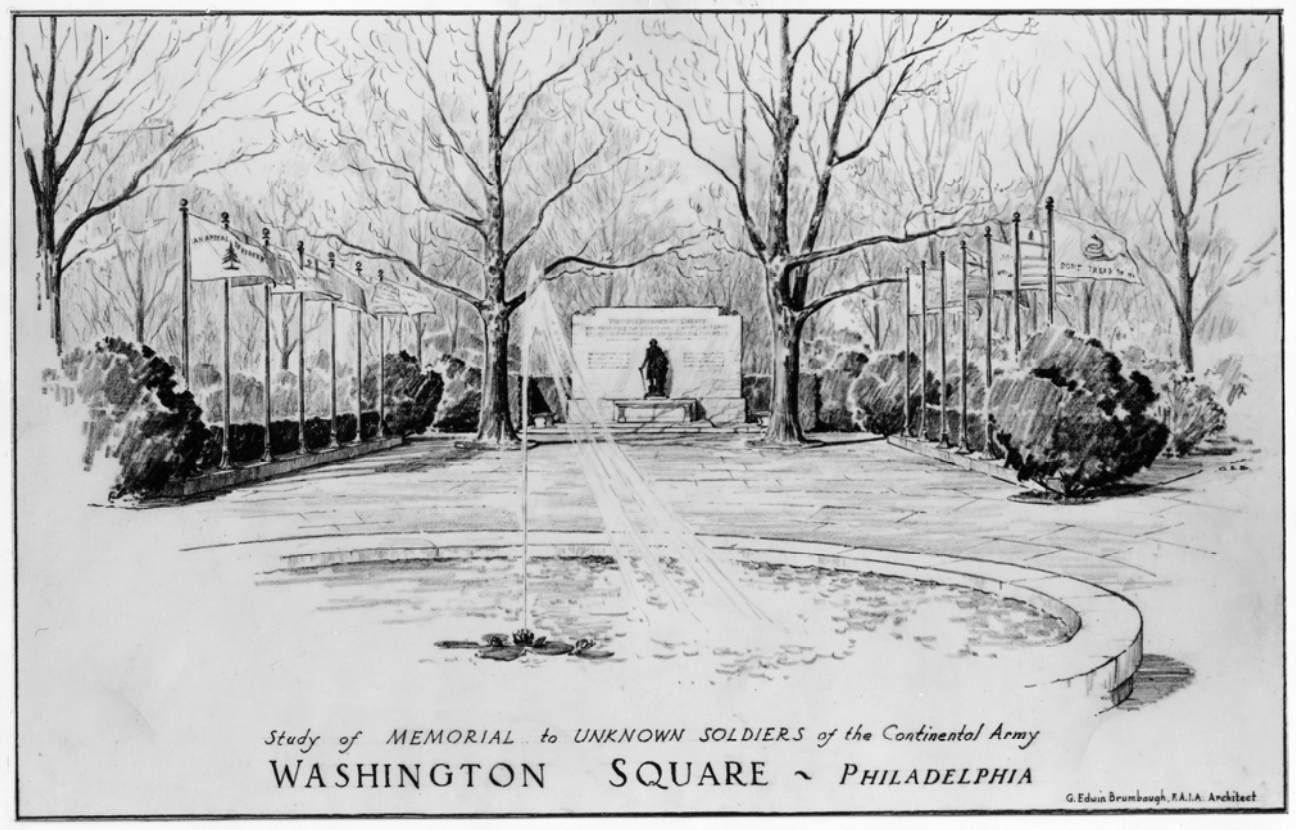


Figure 1.75: *Circa 1952 sketch by G. Edwin Brumbaugh of his proposed design of the Memorial to the Unknown Soldiers of the Continental Army, now known as the Memorial to the Unknown Revolutionary War Soldier (Courtesy, The Winterthur Library: Joseph Downs Collection of Manuscripts and Printed Ephemera).*

Urban Renewal in the Washington Square Neighborhood, mid-1950s

In the mid-1950s, Mayor Richardson Dilworth initiated the revival of the Washington Square neighborhood when he moved into a new home designed by architect G. Edwin Brumbaugh on the eastern side of south Sixth Street, adjacent to the square. This move symbolized the beginning of a renaissance for the Washington Square East area, better known as Society Hill. Neighborhood redevelopment in Society Hill was coincidental with the improvements to Washington Square, developed by Brumbaugh at the same time, as well as an urban renewal movement taking place across the nation.

In the late 1950s and 60s, Edmund Bacon developed a comprehensive plan for Center City, which split the southeast quadrant of the city into the two neighborhoods, Washington Square East (Society Hill) and Washington Square West. Urban renewal was planned for both neighborhoods by Philadelphia's City Planning Commission and Redevelopment Authority. After a period of decline in the first half of the twentieth century, city officials hoped that redevelopment would clean-up the neighborhoods by clearing blighted areas. A series of plans and planning documents trace the changing development proposals for the neighborhoods.[32] Redevelopment plans also show Brumbaugh's improvements to Washington Square in place after 1957 (Figure 1.76).

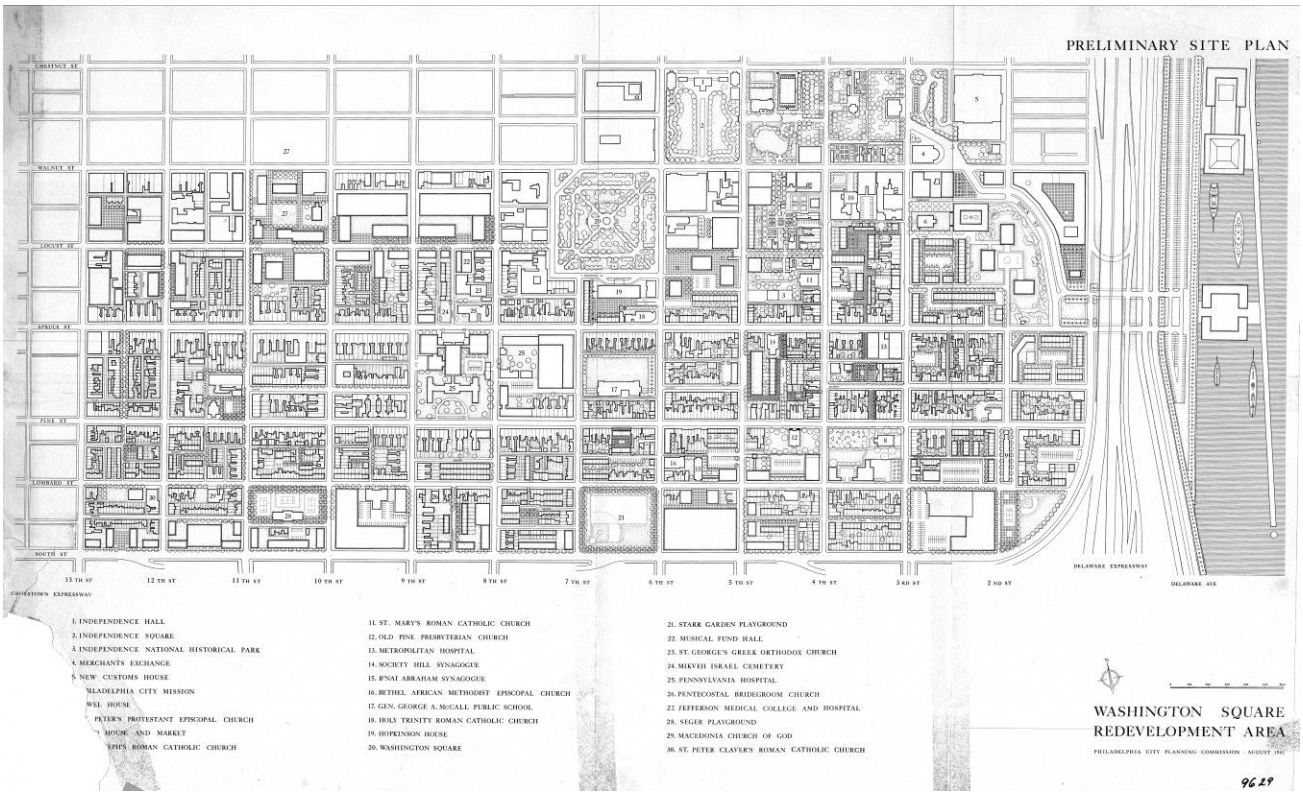


Figure 1.76: *Washington Square Redevelopment Area Preliminary Site Plan, August 1961. Note Brumbaugh's improvements to Washington Square in place, as designed, not as constructed (Independence National Historical Park).*

A large-scale renewal of Society Hill was undertaken first in the 1950s, and the Philadelphia Redevelopment Authority later turned to Washington Square West. By the mid-1970s, the Redevelopment authority owned one fifth of the Washington Square West neighborhood and had begun to clear some areas.[33] Project Area Committees (PACs), or organizations assembled for citizens to provide input in the renewal process, became particularly active in the Washington Square West neighborhood in the mid to late 1970s, as federal funding of urban renewal projects declined and the city began to decrease funding of projects in the neighborhood. Empty lots remained in Washington Square West, and a slow recovery ensued. By the 1990s, Mayor Ed Rendell encouraged reinvestment in Center City, and redevelopment increased into the early 2000s. However unlike Society Hill, whose redevelopment was complete while federal funding remained in place, Washington Square West struggled to recover.

Washington Square Association, 1963

The Washington Square Association was formed on September 9, 1963 as the successor of the Washington Square Planning Committee. "Nine companies bordering the Square formed the Washington Square Association, an unincorporated association, for the purpose of continuing the work and maintenance of the park and monument. Since that date, the total number of organization members has grown to twelve, and an Associate Membership has been created for individuals to join and participate in the work of the Association."[34] The twelve members included: the Athenæum of Philadelphia, N.W. Ayer & Son, Inc., Beck Engraving Company, Inc., Central-Penn National Bank, Curtis Publishing Co., Farm Journal, Lea &

Febiger, J.B. Lippincott Company, Penn Mutual Life Insurance Company, Philadelphia Savings Fund Society, W.B Saunders Company, and Hopkinson House.

The Association retained landscape architect Thomas W. Sears, who had previously worked on the square in the 1950s, to make recommendations for planting improvements. Sears's plant selection was approved by the Washington Square Association at its annual meeting on January 26, 1965. Association funds of $1,500 were appropriated, with the Fairmount Park Commission providing the remainder of the funding and assistance in executing the planting.[35] In a September 1965 letter to Harry A. Batten of N.W. Ayer & Son Inc., Sears wrote, "I am enclosing herewith an estimate covering trees for Washington Square. I had Vagn [Ewaldsen, planting superintendent] check existing conditions at 'The Square,' and between him and me we decided on the enclosed list of trees as the best use of the appropriation. You will note that I have gotten delivered and planted prices from Schwoebel."[36] Evidence suggests that the recommended planting was undertaken according to Sear's recommendations.



Figure 1.77: *1964 aerial view of Washington Square looking west (top) between Seventh (upper) and Sixth (lower) Sts., showing the recently completed Hopkinson House (left), Penn Mutual Life Insurance Building (right) and Curtis Publishing Company Building (far right). Photography by Jack Boucher, HABS File PA-1951-11 (Library of Congress).*



Figure 1.78: *1965 aerial view of Washington Square looking northeast. At upper left hand corner is the Curtis Publishing Company. Photograph by Jack Boucher, HABS File PA-1489-2 (Library of Congress).*

Bicentennial Improvements

In 1973, Atlantic Tree Expert Company performed an assessment of trees in the square. The report of the treasurer of the Washington Square Association for that year indicated an expenditure of $3,435.00 for this work.[37] Horticulturist Laird Robertson from the Atlantic Tree Expert Company made a report on the condition of the trees, shrubbery, and grounds in Washington Square and what would be required to restore them to first-class condition.[38] The report concluded:

> In the (13) segmented sections of this downtown park, there presently exist (194) trees of various species, the largest, oldest and most predominant of which are the sycamores and elms. In addition, there are well established planter areas of large male and female holly and adjacent clustered ilex shrubs. Tall buildings affecting sunlight, gas fumes and restricted air flow, soil leaching due to heavy concentrated foot traffic affecting soil fertility, soil compaction forcing heavy water run off are the biggest offenders to the best natural environment to the trees and shrubs in this Washington Square Park…In the park there are (17) elms

> and (16) sycamores requiring the above work to cost $2,475.00…To feed the (17) holly and ilex shrubs would require 450 pounds of holly tone to cost $135.00 installed.[39]

With the Bicentennial approaching, additional improvements were implemented at Washington Square in 1975, including new bollards, benches, a bronze plaque, and planting around the Memorial to the Unknown Revolutionary War Solider.[40] As originally designed by Brumbaugh, but not executed in the 1950s, a propane-fueled eternal flame was added to the Memorial to the Unknown Revolutionary War Solider in 1975. Bartley, Long, Mirenda & Reyonlds Architects also prepared a plan for new facilities at Washington Square, to be located opposite the Memorial to the Unknown Soldier with restrooms, a guardhouse, and a gardener's office.[41] Ultimately, this building was never constructed (Figure 1.79).

Construction documents developed by Asplundh Environmental Services directed the addition of benches, trash receptacles, drinking fountains, hose outlets, shrub planting, fountain pump house relocation, as well as repairs and widening of some of the stone walks.[42] The Bicentennial 'moon tree' was planted in 1975, from one of the four hundred seeds brought to the moon by NASA astronaut Stuart Rosa in 1971. By 2009, only about sixty 'moon trees' are known to exist.[43] At present, the 'moon tree' is in decline. In 1976 the City also erected playground equipment in the square during the Bicentennial and kept it there for a year[44] (Figure 1.80).

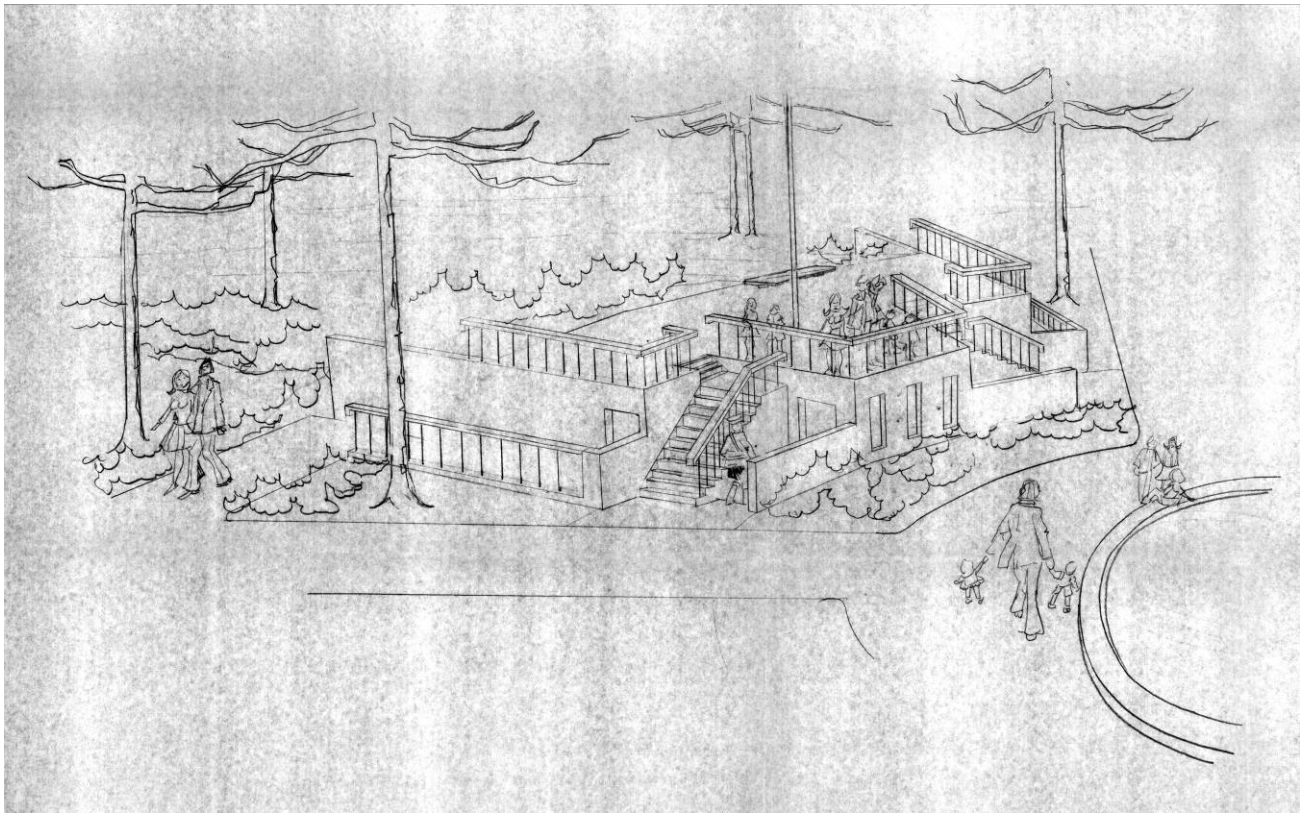


Figure 1.79: *Circa 1974 sketch by Bartley Long Mirenda Reyonlds Architects showing a proposed restroom and offices at the center of Washington Square in anticipation of the bicentennial. The building, which would have severely compromised the historic integrity of the square, was never constructed (Athenaeum of Philadelphia, Washington Square Association Collection).*



Figure 1.80: *1976 photograph of playground equipment installed in Washington Square for the Bicentennial (Temple University Libraries, Urban Archives, Philadelphia Pennsylvania).*

National Register Designation, 1981

In 1981, Washington Square was listed on the National Register of Historic Places as part of the thematic nomination, "The Four Public Square(s) of Philadelphia." This nomination also included Franklin, Logan and Rittenhouse Squares. Regarding the significance of Washington Square, the nomination notes:

> The importance of Washington Square to its neighborhood over almost two centuries has remained even as its immediate surroundings changed from residential to commercial and institutional. It is best expressed by the Horticulture Society's 1831 report: '…salubrity is diffused throughout the neighborhood and to the city generally, and recreation afforded to the assiduous citizen, where he may view four hundred trees in the midst of a populous and busy city…The whole is beautifully kept, and well illuminated at night…all showing the correct and liberal spirit of our city.'[45]

In 1984, Laura Feller of the History Division, National Park Service completed an evaluation of the potential eligibility of Washington Square as a National Historic Landmark. This report determined that while the square was "undeniably of historic importance," it did not meet the NHL criteria and was therefore not eligible.

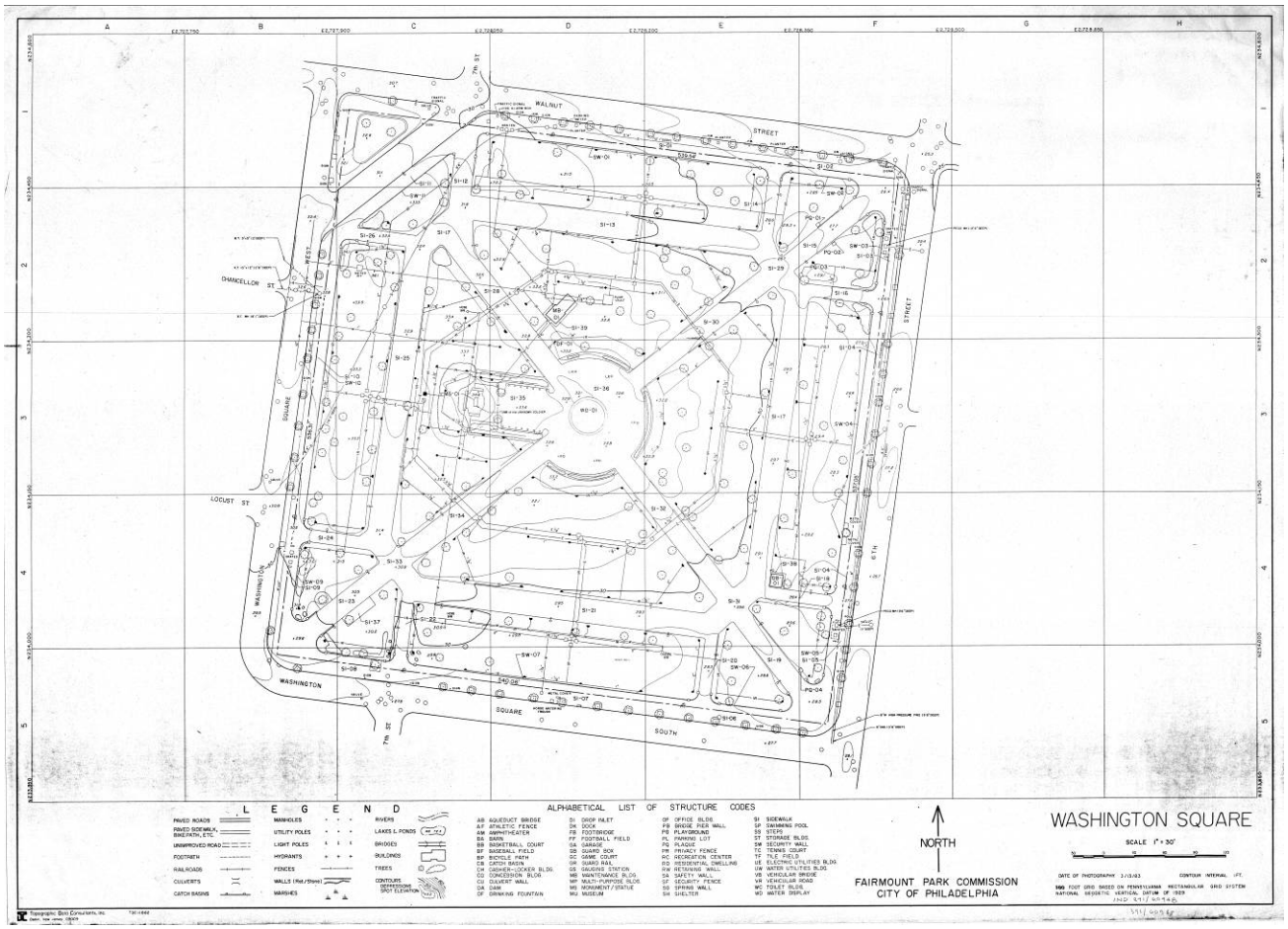


Figure 1.81: *1983 survey of Washington Square by Topographic Data Consultants, Inc. This survey, completed for the Fairmount Park Commission, shows the Brumbaugh design largely intact including walkways, trees, Memorial, fountain, guardhouses, and utilities prior to the completion of City improvements in the 1990s (Independence National Historical Park).*

Summary, 1952-1990

The period between 1952 and 1990 was marked with renewed civic interest in Washington Square and patriotic enthusiasm. In 1952, representatives from eleven corporations organized to chart a course for "rebuilding the square." The following year, the Fairmount Park Art Commission entered into an agreement with the Washington Square Planning Committee, who selected G. Edwin Brumbaugh as architect and Thomas W. Sears as landscape architect for the project. Brumbaugh presented plans to the Committee in 1954, which included the addition of a Colonial Revival style wall, which he proposed to encircle the square; the wall was completed by 1956. Brumbaugh also developed plans for new light fixtures based on Benjamin Franklin's gas street lamps, and fifty-four new lights were installed in the square. Sears recommended the selective removal of thirty-six trees, planting of four new trees, and extensive planting of shrubs and flowering bulbs. The Fairmount Park Commission removed fifty-five trees. The Washington Grays monument was also removed from the square in 1954 and relocated in East Fairmount Park (Figure 1.82).



Figure 1.82: *Philadelphia Inquirer Magazine photograph, likely from the 1940s or 50s, showing women on the base of the Washington Grays monument, located along the west side of Washington Square between 1916 and 1954 before it was removed to East Fairmount Park (Athenaeum of Philadelphia, Washington Square Association Collection).*

In 1956, the Committee commissioned Brumbaugh to design a monument to commemorate George Washington and the American Revolution, to be located on the northern side of the square off the central plaza. Brambaugh's monument consists of a bronze replica of Jean Antonie Houden's standing figure of Washington, set on a granite sarcophagus that holds the remains of an unknown Revolutionary War soldier, backed by a wall inscribed "Freedom is a light for which many men have died in darkness." The circular pool and fountain in the center of the square were also designed by Brumbaugh and installed at the same time as the memorial. The continuing impulse for commemoration was also present at Independence Square, where several archaeological investigations were undertaken in the 1950s shortly after Independence National Historical Park was established.

In the mid-1950s, Mayor Richardson Dilworth's move to the Society Hill (Washington Square East) neighborhood brought a new wave of interest in the area. The Philadelphia City Planning Commission and Philadelphia Redevelopment Authority began urban renewal in the neighborhood, which coincided with improvements to Washington

Square. The Washington Square Association, established in 1963, and originally consisting of the representatives of nine companies bordering the square, actively maintained the landscape and monument. In 1965, they hired Sears to continue to provide services related to tree maintenance and planting. Additional improvements were made in 1975 in anticipation of the Bicentennial, including new bollards, benches, bronze plaque, eternal flame, and planting around the Memorial to the Unknown Revolutionary War Soldier. The city installed and maintained play equipment in the square, but it was removed after a year. In 1981, Washington Square was listed on the National Register of Historic Places as part of the "Four Public Square(s) of Philadelphia Thematic Resources" nomination.

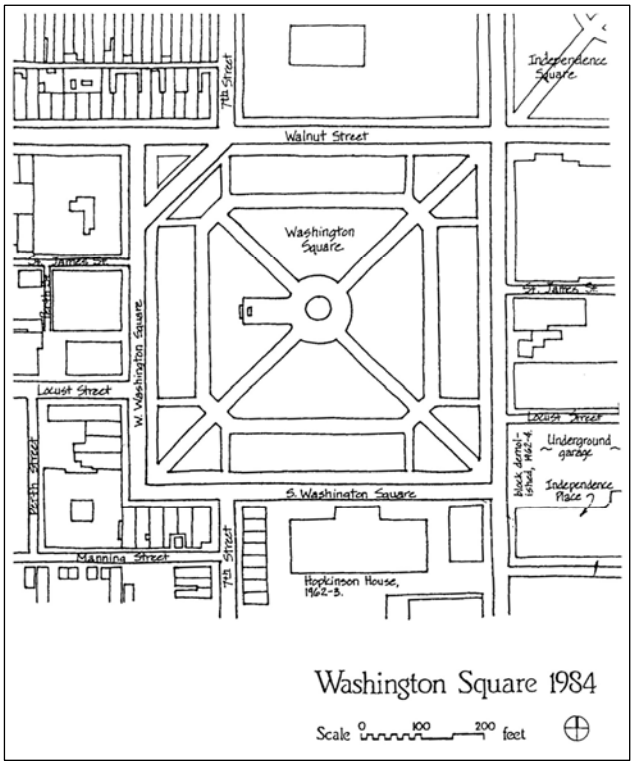


Figure 1.83: *Denise Rabzak's period diagram for Washington Square, 1984, showing the square largely as it exists today with Brumbaugh's improvements complete (Washington Square in Historic Society Hill: A Site Plan Chronology, 1683-1984).*

Endnotes

[1] Washington Square Association. "Washington Square Association, 530 Walnut Street, Phila. Pa. 19105, Attachment to [Tax] Form 1023, History of the Washington Square Association" n.d. [probably 1964].

[2] Washington Square Planning Committee [hereafter WSPC], "Minutes of Meeting", 27 April 1954.

[3] In 1916, George Howe joined the firm, which was thereafter known as Mellor, Meigs & Howe, as it is better known.

[4] Catherine Howett. "Sears, Thomas W." in Charles A. Birnbaum and Robin Karson, eds. *Pioneers of American Landscape Design*. New York, NY: McGraw-Hill, 2000, pp. 338-343.

[5] *Washington Square*. N.W. Ayer & Son, 1957, p.10.

[6] WSPC, "Minutes of Meeting", 27 April 1954.

[7] "Remains of Revolutionary Soldier Hunted In Washington Square for a Memorial." *The Sunday Bulletin*, 5 August 1956.

[8] *Washington Square*. N.W. Ayer & Son, 1957, p. 12.

[9] WSPC, "Minutes of Meeting", 27 April 1954.

[10] WSPC, "Minutes of Meeting", 27 April 1954.

[11] Thomas W. Sears. "Report on Landscaping," 16 September 1954.

[12] "Minutes of Meeting, WSPC, September 20, 1954," p. 2.

[13] Thomas W. Sears. "Report on Landscaping," 16 September 1954.

[14] Donated plant material was to include: 1 *Acer saccharum*, 3 *Oxydendrum arboreum*, 37 *Abelia grandiflora*, 63 *Acanthopanax sieboldianus*, 52 *Aronia melanocarpa*, 76 *Deutzia gracilis*, 25 *Elaegnus augustifolia*, 25 *Ilex crenata*, 9 *Ilex bullata*, 24 *Ligustrum lucidum*, 10 *Ligusrum ovalifolium*, 26 *Ligustrum regelianum*, and 70 *Rhodotypus Kerrioides* [*sic*]. Purchased plant material was to include: 3 *Tilia europaea*, 23 *Cornus florida*, 6 *Franklinia alatamaha*, 54 *Euonymus patens*, 25 *Viburnum dilatum*, 3,000 *Hedera helix*, 63,500 *Pachysandra terminalis*, and 7,200 *Vinca*

minor Bowles. Thomas W. Sears. "Revised Estimate for Plant Material, Washington Square, Philadelphia, PA," 16 September 1954.

[15] G. Edwin Brumbaugh, architect, to Harry A. Batten, N.W. Ayer & Son, Inc., 14 September 1953.

[16] The original gas Benjamin Franklin street lamps are shown in H.M. Lippincott's book *Early Philadelphia: Its People, Life and Progress,* 1917, opposite p. 52.

[17] G. Edwin Brumbaugh, architect, to Harry A. Batten, N.W. Ayer & Son, Inc., 8 September 1955.

[18] *Washington Square*. N.W. Ayer & Son, 1957, p.12.

[19] "For Immediate Release" [Washington Square Association press release], n.d. [circa 1952-1955]

[20] WSPC, "Minutes of Meeting", 27 April 1954.

[21] "Minutes of Meeting, WSPC, September 20, 1954" pp. 3-4.

[22] LeRoy E. Varner. Plan of existing and suggested public lavatories. 26 May 1952.

[23] "Park Board OKs Memorial for Washington Sq." *The Philadelphia Inquirer*, 12 February 1954.

[24] *Washington Square*. N.W. Ayer & Son, 1957, p.19.

[25] John L. Cotter, Daniel G. Roberts, and Michael Parrington. *The Buried Past: An Archaeological History of Philadelphia*. Philadelphia, PA: University of Pennsylvania Press, 1993, p. 205.

[26] "Diggers Uncover Soldiers' Bones from Revolution." *The Philadelphia Inquirer*, 21 November 1956, p. 12.

[27] *Washington Square*. N.W. Ayer & Son, 1957, p.19.

[28] G. Edwin Brumbaugh, architect, to Malcolm Adam, Penn Mutual, 12 December 1955.

[29] G. Edwin Brumbaugh "Addendum L to Specification for Memorial and Fountain at Washington Square, Philadelphia, Penna., for Fairmount Park Art Association." 21 January 1957.

[30] Receipts in the Athenæum of Philadelphia, Wash. Sq. Assn. Papers, (1956-1968).

[31] "Soldier of Revolution Honored in Washington Square Rites." *Evening Bulletin*, 21 June 1957.

[32] Copies of these planning documents are in the open stacks at the Historical Society of Pennsylvania.

[33] John Kromer. *Neighborhood Recovery: Reinvestment Policy for the New Hometown*. Piscataway, NJ: Rutgers University Press, 2000, p. 24.

[34] Washington Square Association. "Washington Square Association, 530 Walnut Street, Phila. Pa. 19105, Attachment to [Tax] Form 1023, History of the Washington Square Association" n.d. [probably 1964].

[35] Thomas W. Sears, Landscape Architect, to Harry A. Batten, N.W. Ayer & Son Inc. 27 September 1965.

[36] Ibid. Plants listed included: 6 *Crataegus phaenopyrum* (Washington Thorn), 4 *Gleditsia trioc.* Inermis (Thornless Honey Locust), 1 *Gymnocladus dioicum* [*sic*] (Kentucky Coffeetree), 1 *Ginkgo biloba* (Gingko), 3 *Sophora japonica* (Jap. Pagoda Tree), 1 *Tilia europaea* (European Linden), and 8 *Deutzia gracilia* [*sic*] (Slender Deutzia).

[37] Washington Square Association. "Report of the Treasurer for the Year of 1973," 21 February 1974.

[38] Washington Square Association. "Minutes of Annual Meeting No. 12." 23 January 1973.

[39] W. Laird Robertson, Atlantic Tree Expert Co., to John H. Archer, Athenæum. 13 January 1973.

[40] "Bicentennial Improvements, Tomb of the Unknown Revolutionary War Soldier, Washington Square, Philadelphia, Penna." Plan, 22 February 1975.

[41] Bartley, Long, Mirenda & Reyonlds Architects, "Washington Square Facilities, Fairmount Park Commission, Philadelphia, PA." Plan, 13 May 1975.

[42] Asplundh Environmental Services. "Washington Square, Improvements to Benjamin Franklin Parkway." Plan, 1975.

[43] Stephanie Farr. "It Came from the Moon and Now It's Dying," *Philadelphia Daily News*, 23 October 2009.

[44] Jack Chevalier. "Washington Square Saw Sorrow, Joy." *Philadelphia Tribune*, 11 February 2003.

[45] Trina Vaux. National Register of Historic Places Inventory – Nomination Form, 1981, citing J. Thomas Scharf and Thompson Westcott. *History of Philadelphia, 1609-1884*, Vol. III, p. 1845-46.

Transition from the City of Philadelphia, Fairmount Park Commission to the National Park Service, 1990 to present

Independence National Historical Park

Congress authorized Independence National Historical Park in 1948, for the purpose of "preserving for the benefit of the American people, historical structures and properties of national significance associated with the American Revolution and the founding and growth of the United States."[1] By 1950, the National Park Service had established a relationship with the City of Philadelphia over the care of Independence Square, adjacent to Washington Square. Independence National Historical Park was officially established on July 4, 1956.

Memorandum of Understanding, 1991

As early as 1983, Congress considered including Washington Square within Independence National Historical Park, in H.R. 2768, introduced by Congressman Thomas Foglietta. This early legislation proposed that the square continue to be owned by the City, but be operated and maintained by the National Park Service through a cooperative agreement. This legislation prompted a request to the NPS History Division regarding the potential national significance of the square. In her 1984 report, Historian Laura Feller concluded that the square "does not appear to meet the criteria for national historical significance under the regulations which govern the National Historic Landmarks Program."[2] This conclusion was based on the analysis that there were other, more significant sites in the U.S. that illustrated important Revolutionary War burials, as well as better examples of early public squares and urban planning in New York City, Boston, and Savannah.

Undaunted, in 1990, Congressman Foglietta and Interior Secretary Manual Lujan visited Washington Square; at that time, Secretary Lujan confirmed that the square "was of sufficient historical significance" to justify adding it to Independence National Historical Park. However, the Secretary cautioned that budget concerns meant that he could not justify increasing the burden already facing the park. Instead, the Secretary noted that he was "prepared to add WS to INDE administratively if the local supporters would improve WS to his satisfaction."[3] Following this visit, Congressman Foglietta's staff, the Assistant Secretary's Office, and the National Park Service began work to negotiate the Memorandum of Understanding that would successfully meet these goals.[4]

In July 1991, the Philadelphia City Council passed Bill #1478 authorizing the Fairmount Park Commission "to transfer an easement (or an interest) in Washington Square to INDE" (Independence National Historical Park).[5] Shortly thereafter, in November, 1991, the City of Philadelphia and the National Park Service entered into a Memorandum of Understanding (MOU) related to the future of Washington Square. This agreement reiterates the NPS role in "preserving, for the benefit of the American people, historical structures and properties of national significance associated with the American Revolution and the founding and growth of the United States," and in the acquisition of "properties of national historical significance located in the city of Philadelphia which the Secretary may deem proper for the administration as part of the Independence National Historical Park."[6] The significance of Washington Square is summarized as one of William Penn's original squares in the 1682 plan for Philadelphia, a burial ground for soldiers during the American Revolution, and as the location of a Tomb of the Unknown Soldier of the American Revolution. The

MOU authorizes the Secretary of the Interior and the Fairmount Park Commission to work collaboratively to "preserve, protect, interpret and maintain" Washington Square in recognition of its importance to the history of the American Revolution.

The MOU set in motion an important sequence of events that ultimately resulted in the transfer of the care and control of Washington Square to the National Park Service, with specific actions identified for both the NPS and the City. The NPS agreed to add the square to Independence NHP once it is "restored, repaired and rehabilitated," and the Secretary of the Interior formerly designated the square as part of the national park; once this occurred, the NPS would "manage, maintain, operate, protect and interpret" Washington Square as part of Independence NHP. At the same time, the City of Philadelphia agreed to "permit a third party under license agreement with the Commission to "restore, repair, and rehabilitate" Washington Square, donate Washington Square to Independence NHP "by means of an easement acceptable to the Secretary," "relinquish authority" over Washington Square to Independence NHP once this transfer occurs, and continue to provide City services "comparable to those provided to the surrounding community."[7] The MOU also stipulated that the NPS "seek the Commission's approval for any capital improvements or structural changes."[8]

The MOU was signed by all parties on November 25, 1991. In 1993, the City and Secretary of the Interior acknowledged the role of the American Revolution Patriots Fund (ARPF), a 501(c)(3) charitable organization, as a party to the MOU as Amendment #1 to "raise and manage funds to accomplish the goals of the MOU."[9] Amendment #2, signed by the Secretary of the Interior in January 2001, established a formal agreement between the NPS, the City of Philadelphia, and the American Revolution Patriots Fund related to the rehabilitation of the square and provided for an extension of time, from ten years to eleven years, for the completion of work and transfer of the property. The time extension was modified again in January 2003 as Amendment #3, which provided for an additional eighteen months for the City and the American Revolution Patriots Fund to complete rehabilitation work. Finally, in March 2004, Amendment #4 acknowledged that the Commission had "completed restoration, repair and rehabilitation work of Washington Square, and the Secretary of the Interior has evaluated those repairs and determined them be to her satisfaction." This final amendment made it possible for the City to donate an easement "for use and occupancy" of Washington Square, "in anticipation of a declaration by the Secretary that the requirements for inclusion have been met."[10] On May 24, 2005, title was granted in perpetuity through the donation of an easement on land at 600 Walnut Street, from the City of Philadelphia through its Fairmount Park Commission to the United States of America, National Park Service.

City Improvements, 1993-2003

In summer of 1993, the Philadelphia City Council appropriated $500,000 in its FY94 (7/1/93 to 6/30/94) capital budget for emergency sidewalk repairs, as the existing flagstone on Washington Square had created a tripping hazard, resulting in personal injury claims against the City. In the spirit of the collaboration defined by the MOU, representatives from the Fairmount Park Commission and the NPS met in August 1993 to discuss the city's desire to replace the deteriorated paving. Following this meeting, NPS Regional Director Charles Clapper articulated a series of design recommendations to the Fairmount Park Commission, including general parameters for the appropriate rehabilitation of the square, that it be limited to the replacement in kind of the square's deteriorated materials, with very limited changes to the existing design, including paving materials and pattern, configuration, and planting. Very specific guidance is offered related to the appropriate treatment of the existing flagstone

(Figure 1.84). Included in Clapper's letter is the recommendation that the existing flagstone be replaced in stone, not brick, to reflect the unique history of Washington Square rather than to make the walkways in Washington Square consistent with other areas of Independence National Historical Park. Clapper acknowledged that "the size and finish of the replacement paving units is likely to differ from the existing, but it should match the existing as closely as possible."[11] Clapper also stated that "it may be necessary to consider replacing the flagstone with a material that is more durable as well as more dimensionally consistent in thickness, such as bluestone."[12] Finally, the NPS noted that the Fairmount Park Commission believes that the "allocated sum is not likely to be adequate to repair those hazards in their entirety"[13] (Figure 1.85).



Figure 1.84: *Northeast view toward the center of the square prior to the replacement of the walks. Note the wood benches installed at the time of the Bicentennial (National Register Nomination for the Four Public Squares of Philadelphia).*



Figure 1.85: *Laying new bluestone walks in Washington Square, November 2, 1998 (Link Harper, City of Philadelphia Department of Records, File #32019).*

In 1993, the NPS and the City considered the prospect of a 24-hour Uniformed Army Honor Guard for the Tomb of the Unknown Revolutionary War Soldier. This idea appeared to create a series of functional challenges, particularly the resulting need to potentially expand existing structures in the square to accommodate an area for the off-duty soldiers, so that the recommendation did not advance beyond an exploratory idea.

During the spring and summer of 1994, the Fairmount Park Commission and the NPS worked with representatives from the American Revolution Patriots Fund (ARPF) and the Washington Square Association to review design alternatives prepared by the Delta Group, who had been retained by the City to prepare a plans for the rehabilitation of the square. The Delta Group proposed five diagrammatic alternatives for discussion, for the treatment of the deteriorated paving, using a variety of combinations of paving materials, including stone, brick, concrete and gravel, which ranged in cost from $2.1 to 3.1 million (for paving only). All schemes appear to include a new 600 sq. ft. building for the honor guard discussed above, and at least one recommended removing the existing [historic] guard house. Meeting minutes indicate that the NPS responded to the alternatives by reiterating the goal of retaining stone paving for walks inside the square, of the archeological sensitivity of the entire site, noting the importance of retaining the historic guard house, and that discussions be started with the Philadelphia Historical Commission. In reply, the Fairmount Park Commission suggested that they would prefer the alternative utilizing brick

sidewalks along the four sides of the square, with an all-stone interior because it constitutes a lower construction and maintenance cost and second, that it is unlikely they would be able to re-use the existing flagstone paving, due to its non-uniform shape.

In 1994, Independence NHP Superintendent Martha Aiken noted that the American Revolution Patriots Fund had not been able to raise sufficient funds for the rehabilitation of the square, now estimated at $3.5 million. That year, at a statement before the House Committee on Natural Resources presumably related to H.R. 4642, Deputy NPS Director John Reynolds noted the significance of Washington Square and its appropriateness for inclusion in Independence National Historical Park. Reynolds clarified two points regarding the transfer of the square to the NPS. First, that Congress authorize funds for the operation and maintenance of the site once it is transferred to the NPS, and second that the Secretary of the Interior be authorized to acquire by donation, an interest in the square rather than managing it through a lease. The ensuing discussion with Chairman Bruce Vento also opens dialogue about the potential for other sources of federal funding for improvements, such as the Department of Defense. In September, 1994, Congressman Foglietta announced that he had secured $2.6 million from the Department of Defense for the restoration of Washington Square, including repair of historic light fixtures, fountain, eternal flame, benches, and flagstone walkways. This appropriation was still approximately $1.0 million short of the total funds needed to implement the rehabilitation, so that the complete funding of the improvements ultimately came from several sources (including the City and the American Revolution Patriots Fund) in smaller, periodic increments.

In September 1995, the City began to pursue additional funds to support the rehabilitation. In a letter to Brenda Barrett, SHPO, Richard Tyler outlined the City's strategy for desired improvements, to support the "repair, replacement and rehabilitation of footways, curbing, walls and furnishings" in Washington Square through a grant from the Economic Development Administration.[14] As in the conceptual alternatives discussed above, the schematic design plans submitted to the SHPO in 1995 were prepared by Delta Group for the Fairmount Park Commission, in consultation with the NPS. In his letter, Tyler noted that New York State bluestone would replace the Pennsylvania flagstone on the walks. According to, Tyler, the new material was similar in color, but much more durable. The new paving stones did not match the old in size, but the lateral coursing was retained. The original bluestone curbs were reset. Paths on the perimeter circuit that were widened to approximately twenty-five feet for the Bicentennial were restored to their former width of fifteen feet, with minor alterations to the geometry of the intersections of the walks to improve circulation. New teak benches and painted steel litter receptacles set on bluestone replaced the old benches on concrete slabs. The cement block addition to the maintenance building in the northwest section of the square was removed, and brick sidewalks with granite block vestiges replaced the stone walks between the perimeter wall and the adjacent streets.[15] The Delta Group also designed improvements to the square's utility service and restoration of the square's perimeter brick wall.

The Delta Group plans also recommended additional planting. The plant list for the work, dated March 5, 1997, includes new shade trees: 1 *Acer rubrum* (Red Maple), 1 *Acer Saccharum* (Sugar Maple), 21 *Gingko biloba* (Gingko), 7 *Gleditsia triacanthos* var. *inermis* 'Skyline' (Skyline Thornless Honey Locust), 1 *Gymnocladus dioicus* (Kentucky Coffee Tree), 1 *Liriodendron tulipifera* (Tulip Poplar), 1 *Metasequoia glyptostroboides* (Dawn Redwood), 4 *Nyssa sylvatica* (Black Gum), 4 *Platanus occidentalis* 'Bloodgood' (Bloodgood Planetree), 2 *Quercus phellos* (Willow Oak), 7 *Quercus rubra* (Northern Red Oak), 5

Quercus velutina (Black Oak), 1 *Taxodium distichum* (Bald Cypress), 10 *Tilia americana* (Linden), and 3 *Ulmus americana* 'Heritage' (American Elm). New small and flowering trees included: 6 *Amelanchier canadensis* (Shadblow), 1 *Betula lenta* (Sweet or Cherry Birch), 10 *Cercis canadensis* (Redbud), 2 *Diospyrus virginiana* (Persimmon), 4 *Franklinia alatamaha* (Franklinia), 6 *Halesia carolina* (Carolina Silverbell), and 5 *Magnolia virginiana* (Sweetbay Magnolia). New shrubs included just 6 *Ilex crenata* (Japanese Holly). The firm undertook an analysis of species presently on site and those with historical references before making the aforementioned recommendations.[16]

In May 1996, John Milner Associates, Inc. conducted an archeological investigation of Washington Square, consistent with Section 106 compliance required for the aforementioned project. Unfortunately, the grant from the Economic Development Administration had not been sufficient to address all of the desired improvements for the square. Based on this study, in 1998 JMA was retained by Tony DePaul & Son, contractors for the Fairmount Park Commission, to conduct archeological supervision and monitoring of several construction-related excavations during the restoration of Washington Square. Their work noted seventeen intact burials that were partially revealed during construction, most of which were located in the trenches excavated for the drainage system.[17] Based on the number of human remains found in a relatively small area, JMA recommended that a program of archeological monitoring and/or excavation be done for any future construction projects.

In early 1998, INDE Assistant Superintendent, Dennis Reidenbach reported on a number of issues related to the construction contract for the square, including delays in the delivery of the bluestone and the fact that the low bid price exceeded the $2.2 million available for construction, prompting the ARPF to consider a donor recognition program. At this time, the ARPF also asked for the NPS response to two changes to the Memorial: updating the quote, and second, changing the stone material from limestone to granite, as the original Brumbaugh design for the monument used granite, although it was changed to limestone to reduce the budget of the project. Comparisons between the proposed construction contract and a 1990 list of improvements needed indicated that several items were still missing from the base bid. Furthermore the NPS noted that some items on the 1990 list of improvements (such as the demolition of the guard houses) were not consistent with NPS cultural resource management. This was also true for the recommendation of the changes proposed for the Memorial, and the subsequent work did repair the Memorial stone in-kind.

The American Revolution Patriots Fund had been retained by the Fairmount Park Commission in 1999 to prepare a condition assessment and treatment recommendations for the Memorial to the Unknown Revolutionary War Soldier, which noted serious condition issues in the back wall resulting from the poor quality of limestone used in the original construction.[18] In September, 2000, Richard Tyler again requested compliance from the SHPO for additional improvements to Washington Square. With a budget of $535,660, Tyler noted that a grant of $482,000 was approved from the Department of Defense through the Economic Development Administration, with the additional contribution of $53,660 to be provided by the American Revolution Patriots Fund for work on the Memorial and square. Specific improvements to be addressed by the Fairmount Park Commission in this rehabilitation effort included:

1. Reconstruction in kind of the limestone backdrop wall of the Memorial to the Unknown Revolutionary War Soldier (Figure 1.86);

2. Conservation of the sarcophagus of the Tomb of the Unknown Soldier of the Revolutionary War (Figure 1.87);
3. Conservation of the limestone benches that form a part of the Memorial (Figure 1.88);
4. Mechanical improvements to the eternal flame that form a part of the Memorial;
5. Removal and replacement in kind of other existing benches in the Square with no change in the number or location of them;
6. Demolition of a small concrete structure attached to the Centennial era wooden maintenance building (Figure 1.89);
7. Rehabilitation of that maintenance building and of the Centennial era guard house (Figure 1.90);
8. Landscaping improvements and lawn restoration;
9. Installation of interpretive markers, and
10. Creation of an American Revolution Patriot's Fund Washington Square donor's walkway and plaque zone.[19]

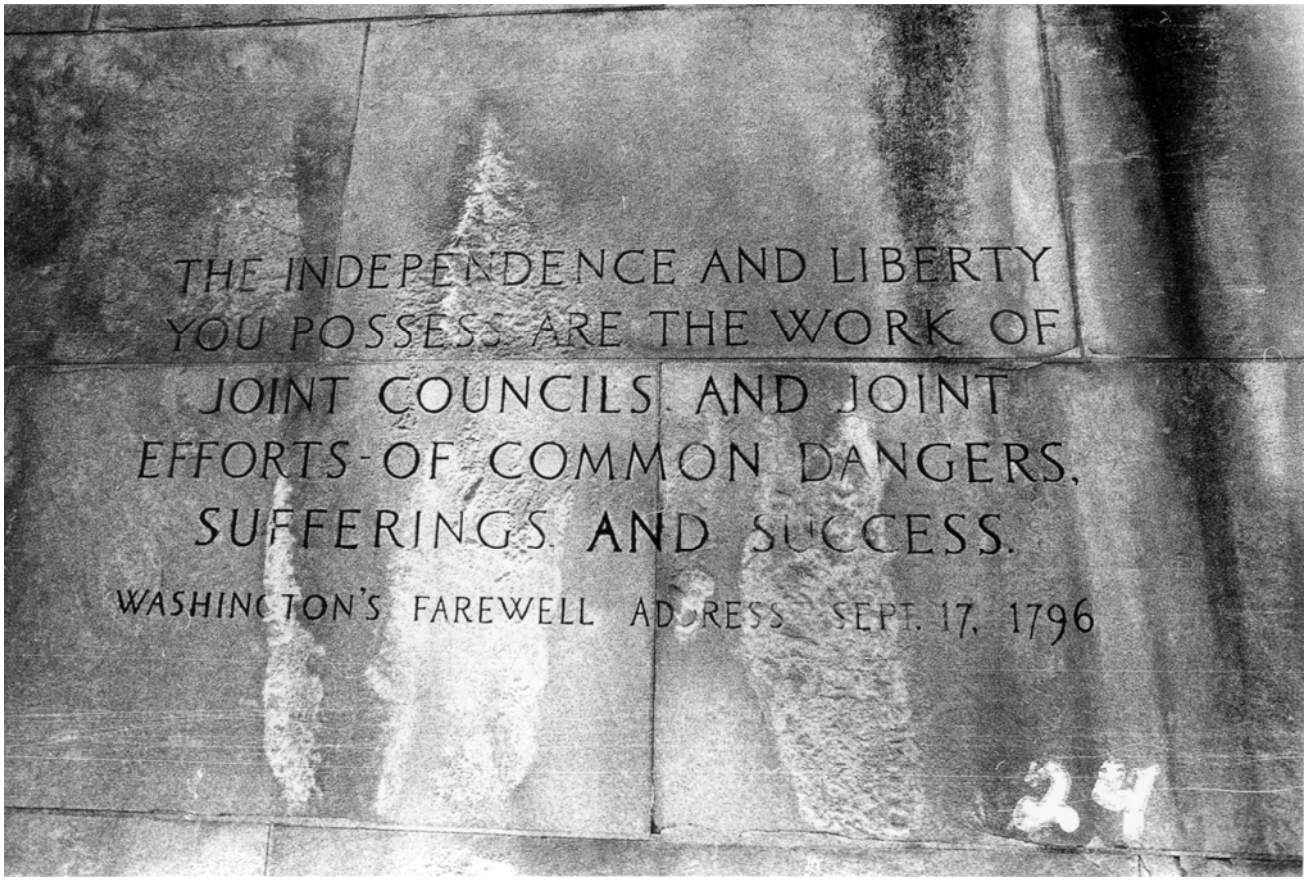


Figure 1.86: *June 6, 2002 photograph of inscription on the Memorial to the Unknown Revolutionary War Soldier prior to replacement in late 2002 (Link Harper, City of Philadelphia Department of Records, File #32019).*



Figure 1.87: *Photograph of walkway construction underway in front of the Memorial to the Unknown Revolutionary War Soldier, June 23, 1998 (Dick Gouldey, City of Philadelphia Department of Records, File #30779-17).*



Figure 1.88: *Deteriorated pedestal on the Memorial to the Unknown Revolutionary War Soldier, June 6, 2002 (Link Harper, City of Philadelphia Department of Records, File #32019).*

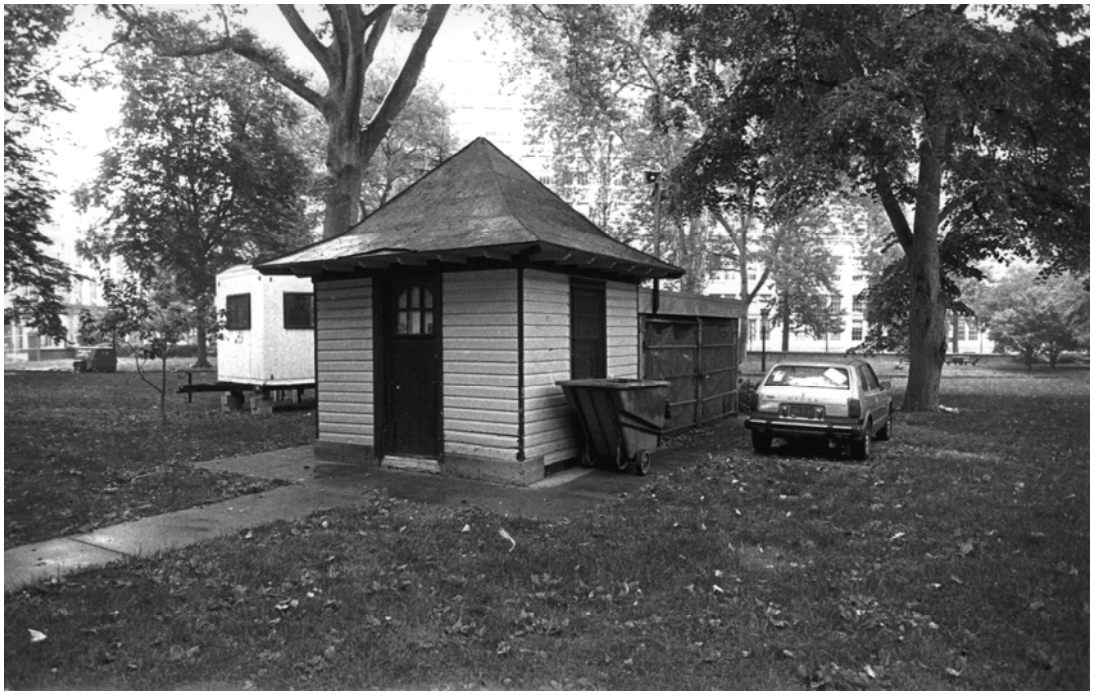


Figure 1.89: *Guard house in the northwest quadrant of the square, showing the concrete block addition to the north that was removed during renovations to the square, June 23, 1998 (Dick Gouldey, City of Philadelphia Department of Records, File #30779-19).*



Figure 1.90: *Guard house near the southeast corner of the square during the replacement of bluestone walks, June 23, 1998 (Dick Gouldey, City of Philadelphia Department of Records, File #30779-14).*

With the exception of the donor's walkway and plaque zone, the City considered all of the improvements above to be consistent with the *Secretary of the Interior's Standards for the Treatment of Historic Properties.* The donor's walkway required paving a landscaped area of the square in brick, which according to Tyler, would "alter the features, materials, and spatial relationships that characterize the square" and thus have an adverse effect. For this reason, it appears that the installation of the donor's walkway was never completed. It also appears that, based on consultation with the NPS, existing benches on slate pads that had been added to the park in the 1970s, were not replaced so that the grass/landscaped area could be returned to a more appropriate character and to reduce the overall maintenance (Figure 1.91). Tyler's letter also notes the Commission's ongoing collaboration with the NPS on the design and content of the interpretive markers. In 1999, an organization called History Now of the Rittenhouse Foundation, in association with Joel Katz Design Associates (JKDA) was commissioned to prepare an interpretive plan for Washington Square, completed February 2000. Installation of interpretive panels and way-finding signage in the square was subsequently completed in October 2002.



Figure 1.91: *Grouping of wooden benches around the perimeter of the square that date to the Bicentennial celebration in in the 1970s, which were slated for removal during renovations, November 2, 1998 (Link Harper, City of Philadelphia Department of Records, File #32019).*

In December 2002, the Fairmount Park Commission itemized outstanding items necessary to complete the "restoration" of Washington Square to fulfill the Memorandum of Agreement:

- Removal of hazardous limbs;
- Replacement of missing or broken curbstone;
- Restoration of the eternal flame;
- Replacement of stone #8 on the limestone wall of the Memorial;
- Removal of Commission regulatory and construction signs;
- Submission of as-built drawings
- Demonstration that the irrigation system, fountain, and site lighting are all operational;
- Lawn restoration;
- Rehabilitation of the maintenance building;
- Rehabilitation of the guardhouse; and
- Turnover of all keys.[20]

Completion of the physical improvements was projected for June 2003, with the NPS to assume interim management responsibility beginning February 2003 as the final easement was being drafted and approved by all parties. Prior to the turnover, the NPS commissioned two studies of the square: a "Site Plan Chronology" by Denise Rabzak (1987) and a "Bibliography of Source Material" on the square by Wendy A. Woloson (2000).



Figure 1.92: *Condition assessment and inventory of trees within Washington Square, 2007 (National Park Service, Olmsted Center for Landscape Preservation).*

National Park Service Stewardship

With the acceptance of the improvements to Washington Square, the NPS received an easement on the property in 2005, and since then, the square has been continuously maintained and interpreted by Independence National Historical Park. Since acquiring the easement, NPS has also completed several studies to enhance the body of knowledge of the square and assist with management, maintenance and interpretation. This includes work such as the 2006 "Survey of Plaques and Waysides," and the 2007 "Long Range Interpretive Plan." In 2007-08, the NPS Olmsted Center for Landscape Preservation completed a tree inventory and condition assessment of the trees in Washington Square; tree pruning following the recommendations in the Olmsted Center assessment was subsequently completed by the park (Figure 1.92).

Continued improvement to the landscape has required periodic work orders for the treatment of specific areas of deterioration, or to address the removal and replacement of diseased or dying plant material. This includes work that is needed in Washington Square, as identified in the Cultural Resource Department work orders as follows:

2005

- Replace missing Maryland flag at Memorial.

2006

- Identification that the Moon Tree is in poor condition, and a request for additional evaluation.
- Remove Locust suckers from behind Yew hedge.
- Grind stump to allow for lawn re-establishment

2008

- Remove suckers from Oak tree on Washington Square South sidewalk, and Linden on the inside of the perimeter wall.
- Remove three Inkberry shrubs from south bed, and one Inkberry from the north bed along Washington Square West/7th Street to allow for improvements by the Society Hill Civic Association, including new shrubs.
- Remove two Inkberry and two Euonymus shrubs from the bed along Washington Square West at the intersection with Locust Street, to allow for improvements by the Society Hill Civic Association.
- Remove all Yew shrubs from the plant bed beside Washington Square West and Washington Square South to allow for improvements by the Society Hill Civic Association.
- Remove all Euonymus shrubs from the bed beside Washington Square West to allow for improvements by the Society Hill Civic Association.
- Remove graffiti from the fountain basin, a sign, and a trash can

2009

- Planting hybrid Chestnut near 7th Street diagonal
- Repair/replace in kind molding and sills on south and east sides of the guardhouse

2010

- Planning for the probable removal and replacement of the Moon Tree;
- Removal of holly in NE corner plant bed and replanting at St. Joseph's church

Society Hill Civic Association

The Society Hill Civic Association, established in 1965, is comprised of residents of the section of Philadelphia bounded by Front and Eighth Streets (east to west) and Walnut and Lombard Streets (north to south). Annually, Society Hill Civic Association volunteers work with NPS staff to plant flowers and shrubs in Washington Square. National Park Service staff coordinates and approves changes to the landscape, and provides gardening tools, as well as orientation for volunteers. In 2004, Society Hill Civic Association volunteers assisted in the planting of thousands of flowers in the square, including English bluebells, pansies, and daffodils.[21]

In 2005, volunteers helped to weed the square and plant additional flowers, including daffodils, mums, and pansies, with the assistance of Valley Crest Landscape Company. Additionally in 2006, sixty rose bushes were planted along the approach to the Memorial to the Unknown Revolutionary War Soldier and sixty boxwood plants were added at the corner entrances of the square.[22] In 2006 and 2009, volunteers planted additional perennials at the square's entrances.[23]

In 2006, the park gave the Society Hill Civic Association the original drawings for a water lily sculpture designed by G. Edwin Brumbaugh as the centerpiece for the fountain in Washington Square. After researching the design, the NPS determined that the bronze sculpture was omitted from the 1956 construction project due to cost Regardless, the Society Hill Civic Association spearheaded an effort to construct the fountain sculpture, commissioning an architect and metal worker to fabricate the lily pads based on the original drawings found in the Brumbaugh collection at Winterthur. The size of the sculpture, however, was adjusted to be one third larger, and thought to be more appropriate to the scale of the fountain basin.[24] The fountain sculpture was constructed with donations from the Philadelphia Fountain Society, the Washington Square Association, and the Society Hill Civic Association, and was installed on June 28, 2007[25] (Figure 1.93).

Summary, 1990-present

This final period in the history of Washington Square represents the transition of care and control from the City of Philadelphia, Fairmount Park Commission to the National Park Service, Independence National Historical Park. The transition took nearly fourteen years to accomplish, guided by a 1991 Memorandum of Understanding and four amendments that facilitated collaborative work between the two agencies and the American Revolution Patriot's Fund, who worked to undertake a suitable and acceptable rehabilitation project. Working collaboratively with the NPS, and the City of Philadelphia's Capital Programs Office, the Fairmount Park Commission completed an extensive rehabilitation of Washington Square with design plans by the Delta Group for the repair and replacement of paths, curbing, walls, and furniture in the square, including restoration of the width of the internal walkways and the replacement of Pennsylvania flagstone paving with New York bluestone. New additions to the square included teak benches, trash receptacles, and interpretive signage developed by Joel Katz Design. The Delta Group plans also included substantial planting improvements. The City completed additional improvements in 2000-2002 focused primarily on the Tomb of the Unknown Revolutionary War Soldier. While much documentation has been found regarding the collaboration between the City and the NPS regarding the scope of the improvements between 1993-2003, the actual funding of the work is less clear, although it can be credited to several sources, including the City's capital budget and the Fairmount Park Commission, grants from the Department of Defense through the Economic Development Administration, the American Revolution Patriot's Fund, and History Now. Once the rehabilitation work was accepted by the Secretary of the Interior, a permanent easement over the 6.64-acre property was donated by the City of Philadelphia to the National Park Service and title transferred in May 2005. The Society Hill Civic Association has taken an active role in caring for the square, working collaboratively with NPS annually to plant flowers and shrubs in all planting beds and in 2007 to fabricate the lily pad sculpture for the center of the fountain, as originally designed by G. Edwin Brumbaugh in 1956. Since 2005, the NPS has been responsible for ongoing stewardship of Washington Square as part of Independence National Historical Park.

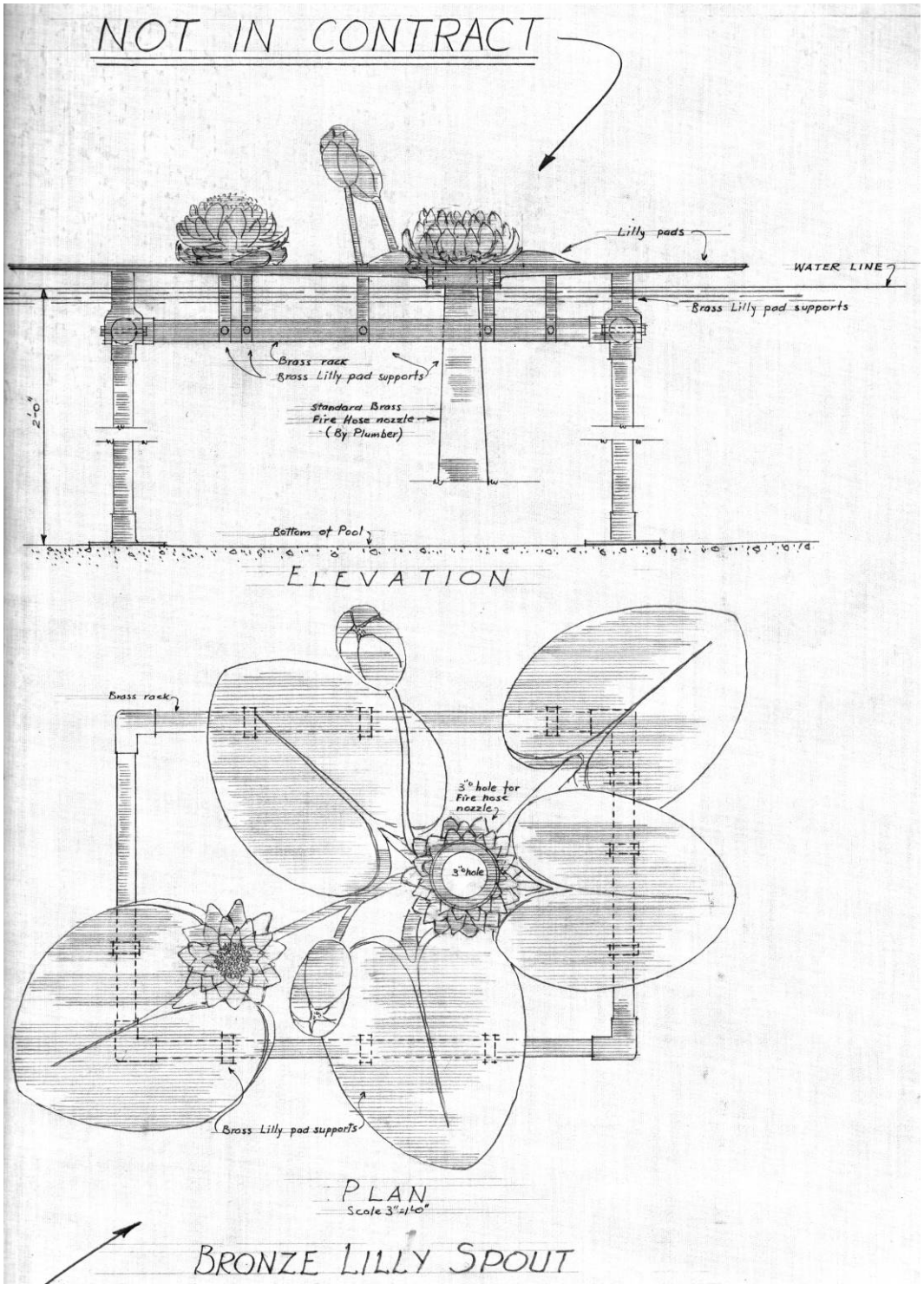


Figure 1.93: *Architect G. Edwin Brumbaugh's original 1956 design for the lily pad sculpture in the fountain at the center of Washington Square, later fabricated by the Society Hill Civic Association for installation in the fountain in 2007 at a 1/3 larger scale (Courtesy, Winterthur Library: Joseph Downs Collection of Manuscripts and Printed Ephemera).*

Endnotes

[1] Public Law 795, 80th U.S. Congress, approved on June 28, 1948.

[2] Laura J. Feller, Historian. "Report on Washington Square, Philadelphia Pennsylvania: Its Eligibility for Designation as a National Historic Landmark." National Park Service, History Division, March 29, 1984, Executive Summary.

[3] Martha B. Aikens, Superintendent. Washington Square Briefing Statement. NPS, Mid-Atlantic Region, Independence NHP. March 1, 1994, p. 1.

[4] Ibid.

[5] "Memorandum of Understanding Between United States Department of the Interior and City of Philadelphia, Pennsylvania Through the Fairmount Park Commission." Agreement Number MU-SECY-1-9001, 1991, p. 3.

[6] Ibid., p. 2.

[7] Ibid., p. 4.

[8] Ibid., p. 4.

[9] "Amendment #1 to Memorandum of Understanding, Agreement Number MU-SECY-9001, Dated November 25, 1991 Between United States Department of Interior and City of Philadelphia, PA Through the Fairmount Park Commission." Signed by the Secretary of the Interior on April 19, 1993. The American Revolution Patriots Fund, a charitable organization, appears to be administered by the Philadelphia Foundation. According to the Philadelphia Foundation's *2008 Report to the Community*, they lists two ARPF funds – the first, an organizational endowment established in 2001 for "the maintenance of the monument honoring Thomas Foglietta in Washington Square, and the surrounding park and the second, donor-advised fund established in 2003 for the maintenance, renovation, and care of Washington Square. According to GuideStar Grant Explorer, in FY2003, the ARPF received $49,445 in revenue from contributions and investment income, with approximately $88,417 in expenses, leaving a fund balance of $67,398.

[10] "Amendment #4 to Memorandum of Understanding, Agreement Number MU-SECY-9001, Dated November 25, 1991 Between United States Department of Interior and City of Philadelphia, PA Through the Fairmount Park Commission and American Revolution Patriots Fund." Signed by the President of the American Revolution Patriots Fund on March 10, 2004.

[11] Charles Clapper to William Mifflin, Executive Director, Fairmount Park Commission, 15 October, 1993.

[12] Ibid.

[13] Ibid.

[14] Richard Tyler, City of Philadelphia Historic Preservation Officer to Brenda Barrett, Director, Bureau for Historic Preservation of the PA Historical & Museum Commission, 20 September 1995.

[15] Ibid.

[16] The Delta Group. "Washington Square, Plant Lists." 5 March 1997.

[17] John Milner Associates, Inc. "Archeological Supervision and Monitoring of Restoration Activities at Washington Square, Philadelphia, Pennsylvania." City of Philadelphia, Fairmount Park Commission, 2000, Abstract.

[18] Richard Tyler, Historic Preservation Officer, City of Philadelphia to Brenda Barrett, Director, Bureau for Historic Preservation, Pennsylvania Historical and Museum Commission, 27 September 2000.

[19] Ibid.

[20] Philip R. Goldsmith, Interim Executive Director, Fairmount Park Commission to Dennis Reidenbach, Acting Superintendent, Independence National Historical Park, 20 December 2002.

[21] "Neighbors 'Dig In' to Plant Flowers," *Society Hill Civic Association Newsletter*, November/December 2004, p. 9.

[22] "Washington Square Happenings," *Society Hill Civic Association Newsletter*, November/December 2005, p. 5.

[23] "The Beautification of Washington Square," *Society Hill Civic Association Newsletter*, July/August 2006, p. 11, and "Washington Square Plantings," *Society Hill Civic Association Newsletter*, January/February 2009, p. 19.

[24] Dennis R. Reidenbach, Superintendent, Independence National Historical Park, to Tania Rorke, President, Society Hill Civic Association, 18 December 2006. [INHP]

[25] "Lily Pad Now Blooms," *Society Hill Civic Association Newsletter*, October 2007, p. 25.

CHAPTER 2

ANALYSIS OF INTEGRITY & SIGNIFICANCE

Introduction

This chapter presents an analysis of the integrity and significance of Washington Square based on its current historic designations, as well as other areas of landscape significance that have been identified in the process of developing this cultural landscape report. The information presented in this chapter is based on the criteria and guidelines established by the National Park Service, National Register of Historic Places, including areas of significance, integrity, and evaluation of appropriate historic contexts. Washington Square is a historic designed landscape, which is defined as possessing:

- Significance as a design or work of art; was consciously designed and laid out by a master gardener, landscape architect, architect, or horticulturist to a design principle, or an owner or other amateur using a recognized style or tradition in response or reaction to a recognized style or tradition;
- Historical association with a significant person, trend, event, etc. in landscape gardening or landscape architecture; or
- A significant relationship to the theory or practice of landscape architecture.[1]

Historic significance is the importance of a property to the history, architecture, archaeology, engineering, or culture of a community, state, or the nation, determined by a process of identification and evaluation defined by the National Register Program.[2] A property must possess historic integrity and meet at least one of the following **National Register Criteria** to be considered historically significant:

- **Criterion A (Event)**: Under Criterion A, a property is associated with events that have made a significant contribution to the broad patterns of our history;
- **Criterion B (Person):** Under Criterion B, a property is associated with lives of persons significant in our past
- **Criterion C (Design/Construction)**: Under Criterion C, a property has distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possess high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction; or
- **Criterion D (Research Potential)**: Under Criterion D, a property may have yielded, or may be likely to yield, information important in prehistory or history.

Current Historic Status

National Register Listing

Washington Square was listed on the National Register of Historic Places on 13 September 1981 under "The Four Public Squares of Philadelphia Thematic Resource." A thematic resource is a group of related, noncontiguous properties that share a

common theme and can therefore be nominated to the National Register as a group of related properties. The nomination form indicates significance at the state level for the period 1600 through 1900, and defines the areas of significance for Philadelphia's historic public squares as community planning, conservation, landscape architecture, and sculpture. "Philadelphia's four public squares are significant because they are among the few manifestations left relatively intact of William Penn's seventeenth century utopian dream."[3] As an older nomination, the document does not provide an in-depth discussion of the history of Washington Square, contributing resources, nor detailed discussion of historic contexts, aside from placing Washington Square in the context of Philadelphia's other four public squares (Franklin, Logan and Rittenhouse Squares).

Though relatively brief, the NR Nomination notes the significance of Washington Square's design history, particularly the Bridport and Olmsted Brothers plans:

> The importance of Philadelphia's four public squares is best attested to by the extent to which they are used by all ages and classes… They have been a joy and source of great pride to Philadelphians for generations. Their continuing success as elements of city planning which have been maintained for three hundred years is a tribute to Penn and his Quaker utopian dream.[4]

The use and physical form of Washington Square has varied tremendously over its 300-year history so that it is imbued with many layers of significance. The statement of significance for Washington Square notes that it is the only one of Penn's original five squares granted by patent specifically for use as a burial ground. It functioned during the eighteenth century, as a burial ground for "strangers" (a potter's field), Revolutionary War soldiers, and victims of the 1793 yellow fever epidemic. This was followed in the early nineteenth century by its use as a cattle market and pasture. The nomination credits 1816 as the year Washington Square began to be redeveloped in response to the increasing residential population and later, the development of the area as a commercial hub:

> The importance of Washington Square to its neighborhood over almost two centuries has remained even as its immediate surroundings changed from residential to commercial and institutional. It is best expressed by the Horticultural Society's 1831 report: "… salubrity is diffused throughout the neighborhood and to the city generally, and recreation afforded to the assiduous citizen, where he may view four hundred trees in the midst of a populous and busy city… The whole is beautifully kept, and well illuminated at night… all showing the correct and liberal spirit of our city.[5]

Internal NPS correspondence indicates that in 1998, the American Revolution Patriots Funds considered nominating Washington Square as a National Historic Landmark.[6] However, in 1984, NPS Historian Laura Feller had evaluated Washington Square related to potential NHL eligibility, in response to early legislation filed to include the square in Independence National Historical Park. At that time, Feller concluded that, while the square was unquestionably historically significant, it did not appear to meet the rigorous criteria for national significance and therefore was not determined eligible as a National Historic Landmark.

Related Historic Resources and Districts

Washington Square is managed by the National Park Service as part of **Independence National Historical Park**. The park, the core of which is bounded by Walnut, 6th, Chestnut, and 2nd Streets, was listed on the National Register in 1988. This includes Independence Square, located adjacent to the northeast corner of Washington Square and a

very large and noteworthy collection of historic buildings, structures, sites and objects significant to the nation under four themes:

1. The founding and growth of the United States
2. Philadelphia the Capital City, 1774-1800
3. Benjamin Franklin
4. Architecture

In 2000, the aforementioned NR nomination was revised to include a statement of significance and associated resources related to the Underground Railroad and anti-slavery movement. Since it had not yet been incorporated into Independence NHP, neither the 1988 nomination nor the 2000 amendment includes Washington Square. Several resources within Independence NHP are individually listed and/or designated as National Historic Landmarks such as Carpenter's Hall, First Bank of the United States, Second Bank of the United States, American Philosophical Society Hall, and the Merchant's Exchange. Independence Hall is a World Heritage Site.

Philadelphia is ingrained with historical significance and the area surrounding Washington Square and Independence National Historical Park contains some of the city's most important historic properties. The **Society Hill Historic District**, first listed on the National Register in 1971 and amended in 1987, surrounds and includes Washington Square. The district is bordered on the north by Walnut Street, south by Lombard Street, east by the Delaware River piers, and on the west by 8th Street. The period of significance for the district is 1682-1937; areas of significance include architecture, commerce, religion and philosophy, urban planning, and ethnic history. The district is noted as significant at the state and local level. The 1971 nomination notes the district's association with the Holme plan as well as its role, "as the first large-scale urban renewal project to plan for historic preservation…"[7]

The **Washington Square West Historic District**, listed on the National Register in 1984 is roughly bounded by Eighth, Locust, Broad, and Lombard Streets, southwest of the square. To the north and west of the square is the **East Center City Commercial Historic District**, listed on the National Register in 1984, roughly bounded by Sixth, Juniper, Market, and Locust Streets.

To the northeast of the square is the **Old City Historic District**, roughly bounded by Fourth, Chestnut, Front, and Vine Streets. Numerous individual resources with documented historical significance are located near the square, including the Athenaeum of Philadelphia (NHL, listed 1976), which faces Washington Square and the Reynolds-Morris House (NHL, listed 1967), located near the corner of 8th and Locust. The Philadelphia Savings Fund Society Headquarters, N.W. Ayer & Son Building, and 716 Walnut Street are all listed as contributing resources in the Society Hill Historic District.

State and Local Historic District Designations

The Society Hill (and Pennsylvania Hospital of Washington Square West) Historic District, in which Washington Square is located, is listed on the Pennsylvania Register of Historic Places and is a local (City of Philadelphia) historic district (Figure 2.1). As such, this historic district is also subject to review by the Philadelphia Historical Commission, the city agency responsible for reviewing all applications for work on any building, structure, site or object located within a historic district. In this capacity, the City has produced design guidelines for the treatment of primarily building features, but which also contains a succinct introduction and summary statement of significance:

> The Society Hill Historic District occupies an extraordinary place in the history of urban planning, architecture, society, culture and religion. It not only contains a significant concentration of 18th- and early-19th-century buildings in the country, but also

> illustrates mid-20th-century urban design… Society Hill occupies a large portion in the southeastern quadrant of William Penn's original city. The neighborhood derives its name from the Free Society of Traders in Pennsylvania, a joint-stock company chartered by Penn in 1682 to foster development of the colony.[8]

A new local historic district for West Washington Square is currently under study by the Philadelphia Historical Commission. This district has an irregular shape, roughly bounded by Walnut Street on the north, Eighth Street on the east, South Street on the south and Broad Street on the west.

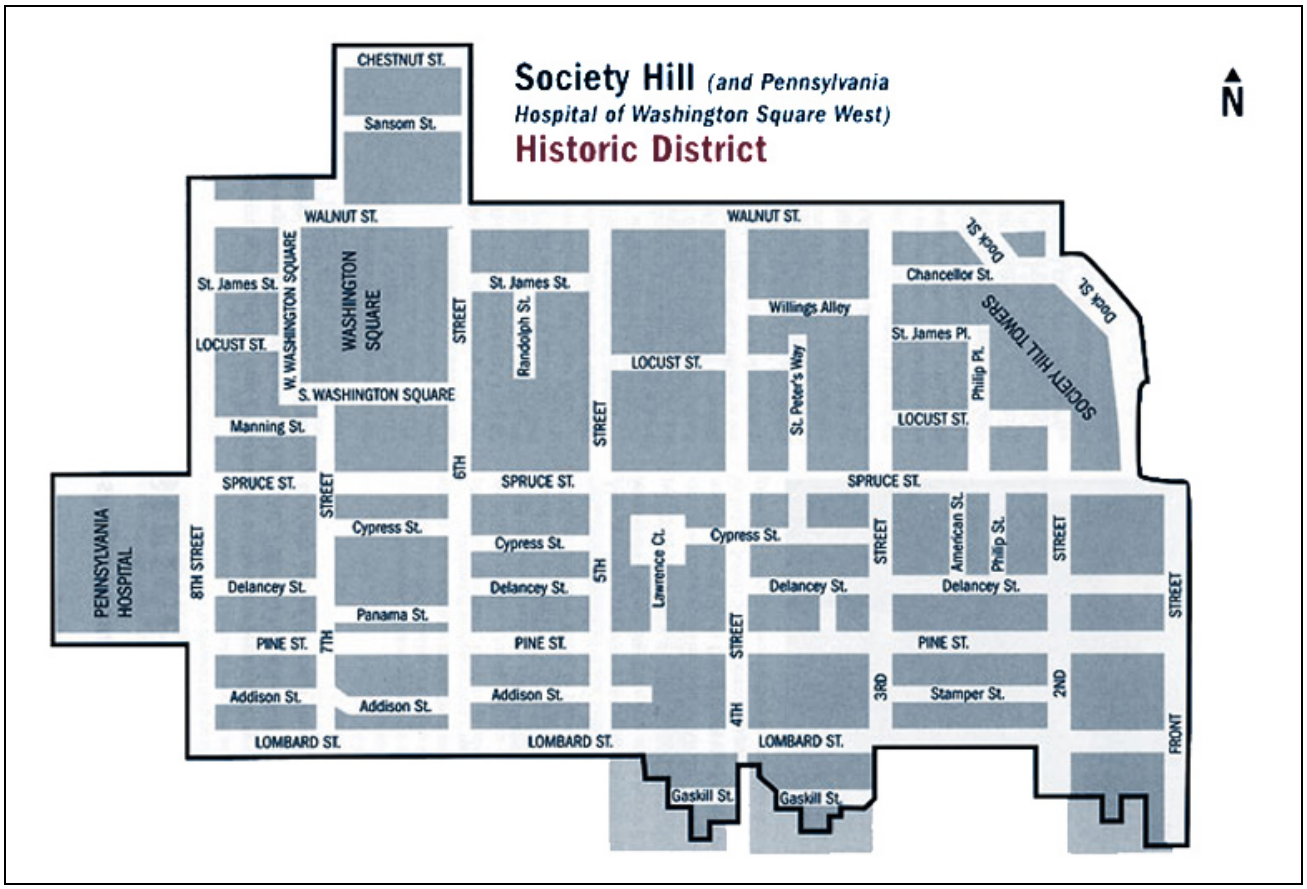


Figure 2.1: *Map of the Society Hill (and Pennsylvania Hospital of Washington Square West) Historic District (Philadelphia Historical Commission).*

Historic Context

An important method used to analyze the significance of a property is to evaluate it within its historic context. Because historic contexts are organized by theme, place, and time, they link historic properties to important historic trends. NPS defines contexts as patterns or trends in history by which a specific property or site is understood, thus revealing its historical meaning. The historic contexts for Washington Square describe trends in history that have influenced the physical development of the square and serve as the overarching themes within which the National Register criteria are applied.

National Park Service Thematic Framework

In 1994, the National Park Service established a revised thematic framework, a significant departure from the previous 1987 framework, which provides a structure for evaluating the national significance of a property. According to the new "Themes & Concepts" booklet, "the framework is an outline of major themes and concepts that help us to conceptualize American history. It is used to help identify cultural resources that embody America's past and to describe and analyze the multiple layers of history encapsulated within each resource."[9] The 1994 framework encourages thoughtful consideration of larger trends and broader contexts in eight (8) areas:

I. Peopling Places
II. Creating Social Institutions and Movements
III. Expressing Cultural Values
IV. Shaping the Political Landscape
V. Developing the American Economy
VI. Expanding Science and Technology
VII. Transforming the Environment
VIII. Changing the Role of the U.S. in the World Community

Historic Context Included in the Current NR Nomination

Area: Expressing Cultural Values

Urban Design, Subtheme: Penn/Holmes Plan and Philadelphia's Original Urban Squares

William Penn established his settlement at Philadelphia based on the principles of religious tolerance and freedom, and advertised this concept to attract new residents. He engaged Thomas Holme, Pennsylvania's first Surveyor General, to develop and then publish a plan and description of the city for distribution in London (Figure 2.2). Philadelphia's five original squares, previously known by their geographic location, were first laid-out by Thomas Holme in 1682: Center Square (Penn Square), Northeast Square (Franklin Square), Southeast Square (Washington Square), Southwest Square (Rittenhouse Square), and Northwest Square (Logan Square). The first known published map showing Holme's plan for the city, including Southeast Square, appeared in 1683.

With many model cities to draw from, Penn had ample precedent to copy in the design of his new settlement, but chose instead to envision a new, larger colonial town. Penn instructed his commissioners in 1681 that the city "may be a green country town which will never be burnt and always be wholesome."[10] The description of the city prepared to accompany Holme's 1683 plan reads, "in the Centre of the City is a Square of ten Acres; at each Angle are to be houses for Publick [*sic*] Affairs…there are also in each Quarter of the City a Square of eight Acres to be for the like Uses, as the Moore-fields in London,"[11] the Moorfields being that city's great recreational ground. Undoubtedly, the Great Fire of London (1666), during which the citizens of London sought refuge in the Moorfields, figured prominently in Penn's mind when he designed Philadelphia. With wide streets intersecting at right angles and Penn's promise that encroachment on public lands would not be tolerated, Philadelphia's plan represented great innovation in colonial town planning.[12] "In setting aside the sour smaller squares 'for the like Uses, as the Moore-fields in London,' that city's recreational grounds, they established America's first designated public parks."[13]

As Philadelphia grew from the Delaware River westward, Southeast and Northeast Squares were the first to be embraced by the city in the late 1700s. Early plans that show property ownership along the Schuylkill River are misleading, as many of those lots were owned by investors in England and Ireland who never took possession of their land, or saw that it lay in un-surveyed forest. By the

American Revolution, development scarcely skirted Center Square. Still, by 1839, a city guidebook noted that Northwest (Logan) and Southwest (Rittenhouse) Squares were "not much used yet."[14]

Despite Penn's promise to maintain the integrity of the squares, they were used for public purposes, notably as burial grounds (Northeast, Southeast, and Northwest Squares) and for other uses deemed in the benefit of the public, such as markets and parade grounds. However, the only square with an official patent was Southeast (Washington) Square for its use as a burial ground. The city took responsibility for the squares through the councils, and beginning in 1915, under the jurisdiction of the Fairmount Park Commission. City ordinances in the early part of the nineteenth century named, governed the use, and appropriated funds for the improvement of Philadelphia's squares.

Center (Penn) Square was planned by William Penn to be, "a Square of ten Acres; at each Angle are to be Houses for Publick [*sic*] Affairs, as a Meeting-House, Assembly or State-House, Market-House, School-House, and several other Buildings for Publick [*sic*] Concerns."[15] In 1685, a letter from Robert Turner to William Penn indicated that construction was underway on a brick public meeting house in the center of the square.[16] Early in Philadelphia's history, yearly fairs were held in the unenclosed square, where public executions also took place.

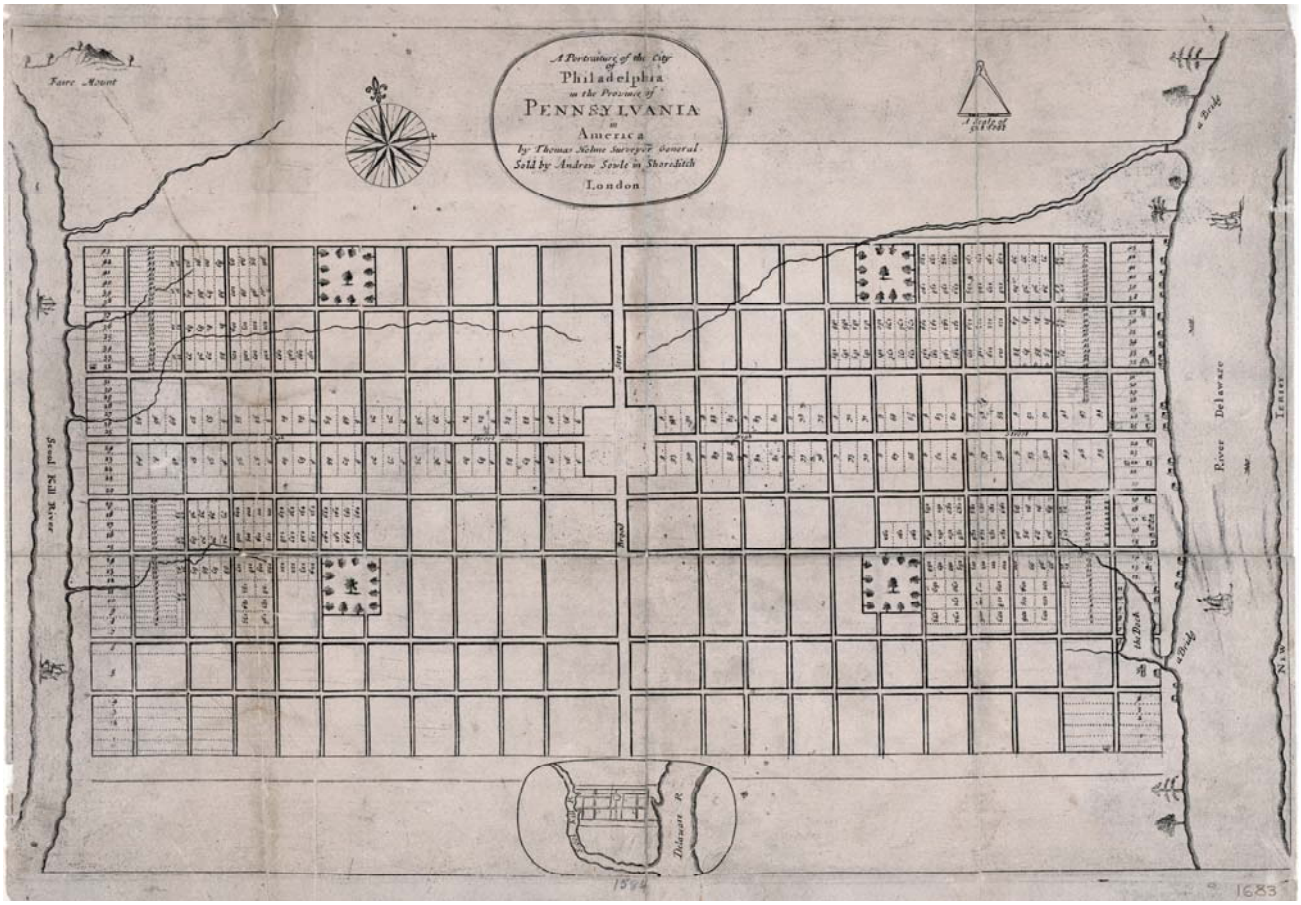


***Figure* 2.2:** *1683 "A Portraiture of the City of Philadelphia in the Province of Pennsylvania in America by Thomas Holme, Surveyor General. Sold by Andrew Sowle in Shoreditch, London" (The Map Collection, Free Library of Philadelphia).*

At the turn of the century, a pump house for Philadelphia's water system was located at the center of the square. A picket enclosure, paths, trees, and a fountain were added shortly thereafter. Horse races were held around the perimeter of the square, which in reality was a circle.[17] During the Revolutionary War, the square served as a drill and parade ground. In 1809, the Fountain of the Nymph and Swan by sculptor William Rush was added to the square. By the late 1820s, the roads were extended thru the square, dividing it in four quadrants, each surrounded by picket fences and two rows of trees on the sidewalks, and in 1825 the name of the square was changed to Penn Square.[18]

In 1870, a public referendum was issued regarding the location of Philadelphia's new public buildings. The citizens of Philadelphia chose between Southeast (Washington) Square and Center (Penn) Square. The result was in favor of Center Square, and construction of City Hall in the Second Empire style began in 1871, designed by John McArthur. A National Historic Landmark, Philadelphia City Hall is the tallest building constructed with bearing walls rather than a steel construction; it is also the "largest and most elaborate city hall building in American still being used."[19]

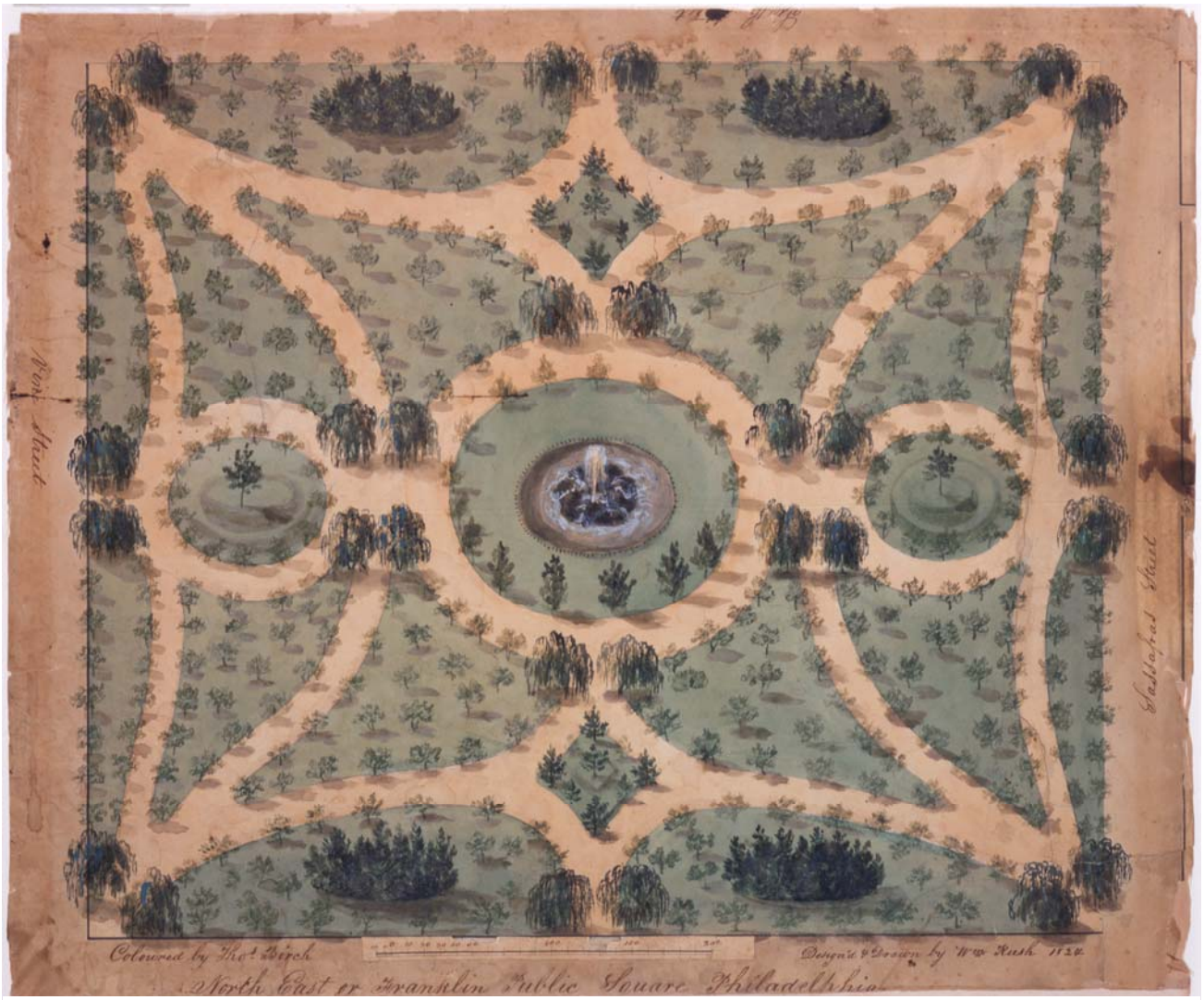


Figure 2.3: *William Rush's 1824 plan for Northeast (Franklin) Square (The Library Company of Philadelphia).*

Northeast (Franklin) Square's history parallels that of Washington Square, in its proximity to the Delaware River and, consequentially, its development. Historically, Franklin Square was used as cattle pasture, a horse and cattle market, a burial ground, a drill and parade ground for the military during the War of 1812, and as a city park. During the Revolution, a powder house was erected on the square by the military.[20] From 1741 to 1835, a portion of the square was used as a cemetery by the German Reform Church. It was instructed by the councils that it be enclosed with an iron fence and leveled in 1815. Grass and trees were planted the same year. In 1824, William Rush prepared an illustrative plan for Northeast Square showing walks, trees and central fountain (Figure 2.3).

The name of the square was officially changed to honor Benjamin Franklin in 1825. In 1837, the square was lit by gas and opened at night, with a new central fountain of marble erected the same year. A "View of Franklin Square, Philadelphia," printed by J.T. Bowen in 1839 held by the Historical Society of Philadelphia shows the landscaped space with a central circular fountain, large shade trees, paved walks, benches, lights, and a small guard house. In 1883, the perimeter fence was taken down and the grounds were laid out based on the plan of Washington Square (Dixey design).[21]

Construction of the Benjamin Franklin Bridge in the 1920s resulted in increased automobile presence surrounding the square. Construction of the Vine Street Expressway in the 1980s further isolated the square from pedestrians. In 1976, the Living Flame Memorial was dedicated to the city's policemen and firefighters in the square, centered on a sculpture by Reginald Beauchamp. Today, the square includes many park amenities, including a miniature golf course, carousel, storytelling benches, and a fountain that was built of marble at the center of the square in 1838 and restored in 2006.

Southwest (Rittenhouse) Square is located due west of Washington Square. Along with Logan Square, it was the last of Philadelphia's squares to be substantially developed. In the early 1800s, brickyards bordered the square. The square was first enclosed with a fence in 1816. It was first landscaped in the 1830s, with the terrain leveled, crisscrossing gravel walks installed, and saplings planted.[22] In 1825, the square was renamed in honor of David Rittenhouse (1732-1796), astronomer, instrument maker, and patriotic leader of the Revolutionary era.

The first townhome on the square was constructed circa 1840 by James Harper (1780-1873), a former Pennsylvania congressman (1833-1837) and brick manufacturer. In the 1840s, the American Philosophical Society proposed building an observatory on the square, but eventually withdrew its offer after the city issued its conditions. During the pre-Civil War era, in the 1850s, the Rittenhouse Square neighborhood became increasingly popular; by the second half of the nineteenth century, it was the most fashionable residential neighborhood in the city. In 1852-53 an iron paling fence was erected around the square, with trees, grass, and walks laid-out in the square. Three fountains were subsequently erected, but removed shortly thereafter "as they dampened the ground" and became unpopular.[23]

Today, Rittenhouse Square most closely reflects a circa 1913 design commissioned by the newly formed Rittenhouse Square Improvement Association of architect Paul Philippe Cret (1867-1945). Cret was educated at the École des Beaux-Arts in Lyon, France, and immigrated to the United States in 1903 to teach at the University of Pennsylvania. His design for Rittenhouse Square consists of diagonal walkways that meet at a central oval. The central plaza area features a basin, classical urns, and sculptures. Notable sculptures in the square include works by Antoine-Louis Bayre, Albert Laessle, Paul Manship, Beatrice Fenton, and Cornelia Chapin. A low fence surrounds the square.

Today, Friends of Rittenhouse Square, in association with the Fairmount Park Commission, care for the square in a public-private partnership.

Northwest (Logan) Square was the site of public burials and public executions (until 1823). The square was first improved in 1820s, as residential development increased in the area. Logan Square was named, along with the four (4) other squares in 1825, in honor of statesman and scholar James Logan (1674-1751), who for a time served as William Penn's secretary. By 1842 the ground was leveled, walks laid-out, and trees planted, with the square surrounded by an open paling fence.[24] In 1852, an iron fence was constructed around the square, which played host to the Sanitary Fair in 1864.

In the 1930s, the square was converted to a traffic circle at the midpoint of the Benjamin Franklin Parkway. The circle was designed by French landscape architect Jacques Gréber. At the center of the circle is the Swann Memorial Fountain, also known as the Fountain of the Three Rivers, designed by architect Wilson Eyre with sculptures by Alexander Stirling Calder. The fountain was constructed in 1924 in memorial of Dr. Wilson Cary Swann, founder of the Philadelphia Fountain Society.

Philadelphia's squares document the early settlement of the city and serve as an expression of the evolving culture of the new city, where the concept of common ground for public benefit was then emerging in America. As the first large city laid out on a gridiron pattern with wide streets and public squares, Philadelphia affected the course of town planning across the nation. According to John Reps, this was particularly true for communities that arose during westward expansion as well as throughout Pennsylvania and in smaller cities in the country, which established a town plan composed of a public square surrounded by significant buildings and a regular street pattern. The state capital cities of Raleigh and Tallahassee include five open squares as an imitation of the Penn Plan. Thus, Philadelphia's plan shared an important role in establishing an American tradition of city planning, along with New Haven, Annapolis, Williamsburg, Charleston, and Savannah, long before the urban revolution of the nineteenth century.[25]

As each of the Philadelphia's squares was developed, their respective designs and re-designs reflected the ways in which the society expressed changing moral and aesthetic values; banning urban park burial, encouraging use with leveled paths and planting, lighting for safety, etc. As such, the use and development of Washington Square is tied to continually evolving perceptions and attitudes about urban life and the importance of public parks in a civilized society.

Additional Areas of Significance

The following section summarizes other areas of significance related to the landscape at Washington Square, which are not extensively documented in existing nominations, but which may warrant future consideration.

Landscape Architecture: Bridport, Dixey and the Olmsted Brothers Designs for Washington Square

Washington Square is significant in the area of landscape architecture, as an extant example of a nineteenth – early twentieth century urban square that evolved based on design plans by noteworthy individuals. In particular, this includes the work of George Bridport, William Dixey, and the Olmsted Brothers, Landscape Architects. Washington Square's development as a public park began in earnest early in the nineteenth century. Prompted by the city's support for a public promenade, the square was enclosed with fence and tree planting was undertaken, leading to the first of several significant designs for the layout of the square beginning with George Bridport in 1816. The last

significant redesign of the square by G. Edwin Brumbaugh is discussed under Historic Preservation/Commemoration.

George Bridport

George Bridport (1783-1819) was trained in London as a draftsman and decorative painter; one of his ceiling designs had been exhibited at the Royal Academy in 1806, where he was listed as an architect.[26] Bridport immigrated to the United States in 1808 and is known as an accomplished painter of walls and furniture; he collaborated on numerous occasions with architect Benjamin Henry Latrobe (1764-1820), including decorative painting for the U.S. Capitol and House of Representatives in Washington D.C. He established himself in Philadelphia as a "decorative architect and furnisher" and in 1816, completed plan and section drawings for Southeast Square, the same year he established a drawing academy with his brother, Hugh (1794 to c. 1868), and architect John Haviland (1792-1852), who had both just emigrated to the U.S. Historian Joseph Jackson has speculated that the two Bridport brothers knew John Haviland in England.[27] Haviland and George Bridport appear to have established a brief architectural/interior design partnership; after George's death, Hugh Bridport continued to assist Haviland with "teaching architecture and making his engravings for the *Builder's Assistant*" published in three volumes from 1818-1821.[28]

Bridport's designs for Washington Square include the 1816 site plan, and two alternative elevations for a Washington Monument, all three of which are held in the archives of the Library Company of Philadelphia (Figures 2.3 and 2.4). A short, but very interesting analysis of the Bridport plans by Jeffrey A. Cohen is included O'Gorman's *Drawing Toward Building, Philadelphia Architectural Graphics, 1732-1985.* Cohen asserts that following the abandonment of burials in Southeast Square around 1794-95, in 1816 the City Councils suggested that the four outlying squares "be made memorials, in name and statuary, to Washington, Franklin, Columbus, and Penn."[29] While the name of Southeast Square was not officially changed until 1825, Bridport's plans indicate the name Washington Square and as such are the earliest documentation of the change. Most notable, however, is the radial path design in the Bridport design, consisting of a series of concentric circular paths bisected by diagonals connecting to half-circles at each of the four corners.

Bridport's design plan of 1816-17 formed basis for improvements to the square in the first half of the nineteenth century. After Bridport's death in 1819, Vaux continued to advocate for improvements and appears to have been successful procuring plants to enhance the square. Scharf and Westcott note that, by 1831, the Horticultural Society of Pennsylvania described Washington Square with, "a handsome recreative and interesting promenade amongst fifty varieties of trees, seven of which are European and forty-three native."[30] These improvements are evident in a several later plans and surveys executed by Martien Maclean (c.1835-40), John B. Colahan (1843), and J.C. Sidney (1849).

Bridport's design for Southeast Square introduced diagonal entrances at each corner, two concentric circles – at the center and inside the perimeter, and four circular paths at the intersection of the diagonal entrances with the outside circular path. The Colahan plan of 1843 shows the distinctive character of wide promenades and widely spaced specimen trees set in lawn, qualities that have remained throughout subsequent changes to the square. This survey also shows details of the perimeter fence that surrounded the square at the time and a columnar obelisk monument (not constructed).

The 1816 design created a pleasure ground with promenade, containing the characteristics of an early nineteenth century urban park, following trends in similar city settings such as New York and Boston. Many of these urban parks and squares feature a variety of deciduous trees, often including the

distinctive shape of Weeping Willows. City Hall Park, in New York, which had a series of more informal improvements prior to 1800, received a series of more "permanent" enhancements between 1820-1840 that included iron fence, formal gateways, specimen tree plantings, and a fountain. Images of Union Square in New York City, c.1840 show an iron perimeter fence, central circular fountain, wide promenades in two concentric circles, and grass with widely spaced specimen trees.

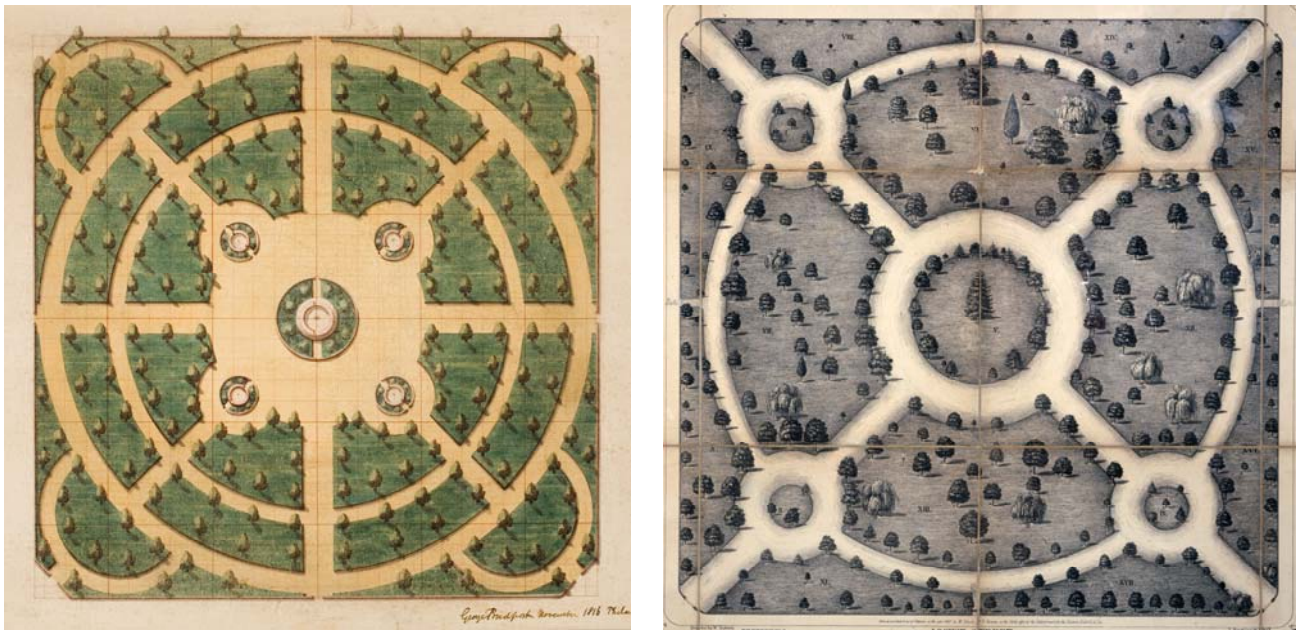


Figure 2.4: *Left: George Bridport's 1816 plan for Washington Square (The Library Company of Philadelphia). Right: Detail of the 1843 lithograph of an August 1842 survey of Washington Square by John B. Colahan (The Historical Society of Pennsylvania).*

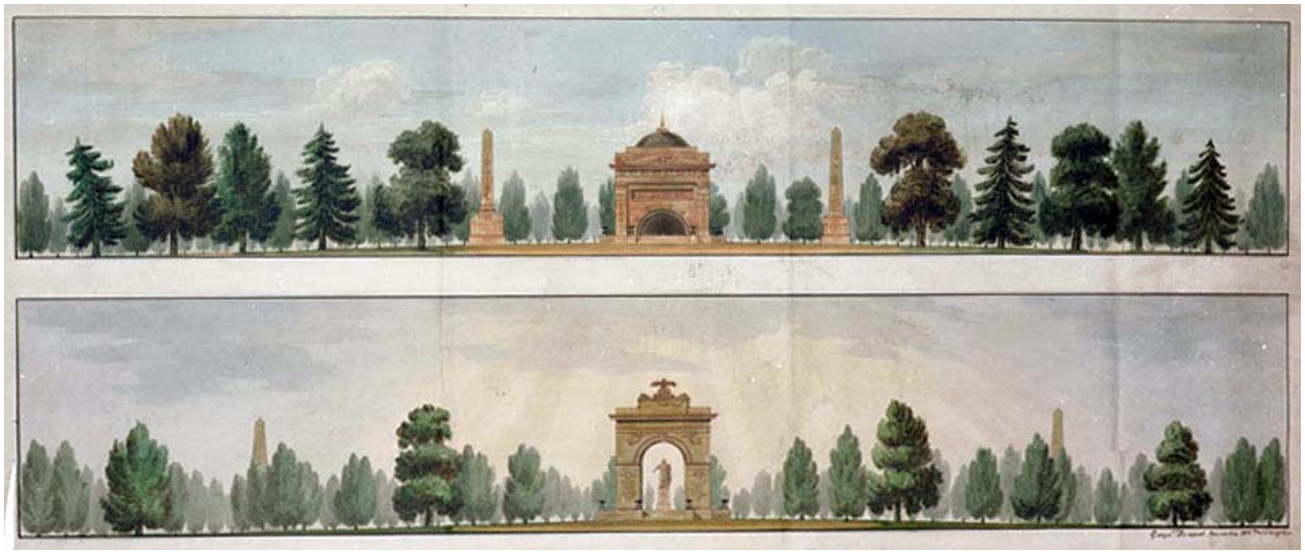


Figure 2.5: *Elevation showing two alternatives for memorials in Washington Square by George Bridport, November 1816 (The Library Company of Philadelphia).*

Later surveys completed in the mid nineteenth century show the difference between the Bridport design plan and the actual implemented design for Washington Square (Figure 2.4). While the general, circular concept for paths in the square was retained, the implemented design featured only one outer circle around the center circle, with a stronger diagonal path system connecting to each corner. Bridport's half circles at the four corners were moved farther into the square, forming smaller circles at the intersection between the circular path and diagonals.

William F. Dixey

The Public Ledger Almanacs from 1870 to 1880 indicate that Dixey assumed the office of City Commissioner of the Department of Markets and City Property in 1875 from Jonathan H. Pugh, who served from at least 1870 to 1874.[31] Dixey was re-elected to office on February 8, 1877 and again on February 12, 1880 for another three year term.[32] His role in the city government between 1884 and 1886 is unaccounted for, but it is assumed that he held the same position, as *The Philadelphia Times Almanacs* indicate that Dixey served as Philadelphia Commissioner of the Department of City Property from 1887 until 1891.

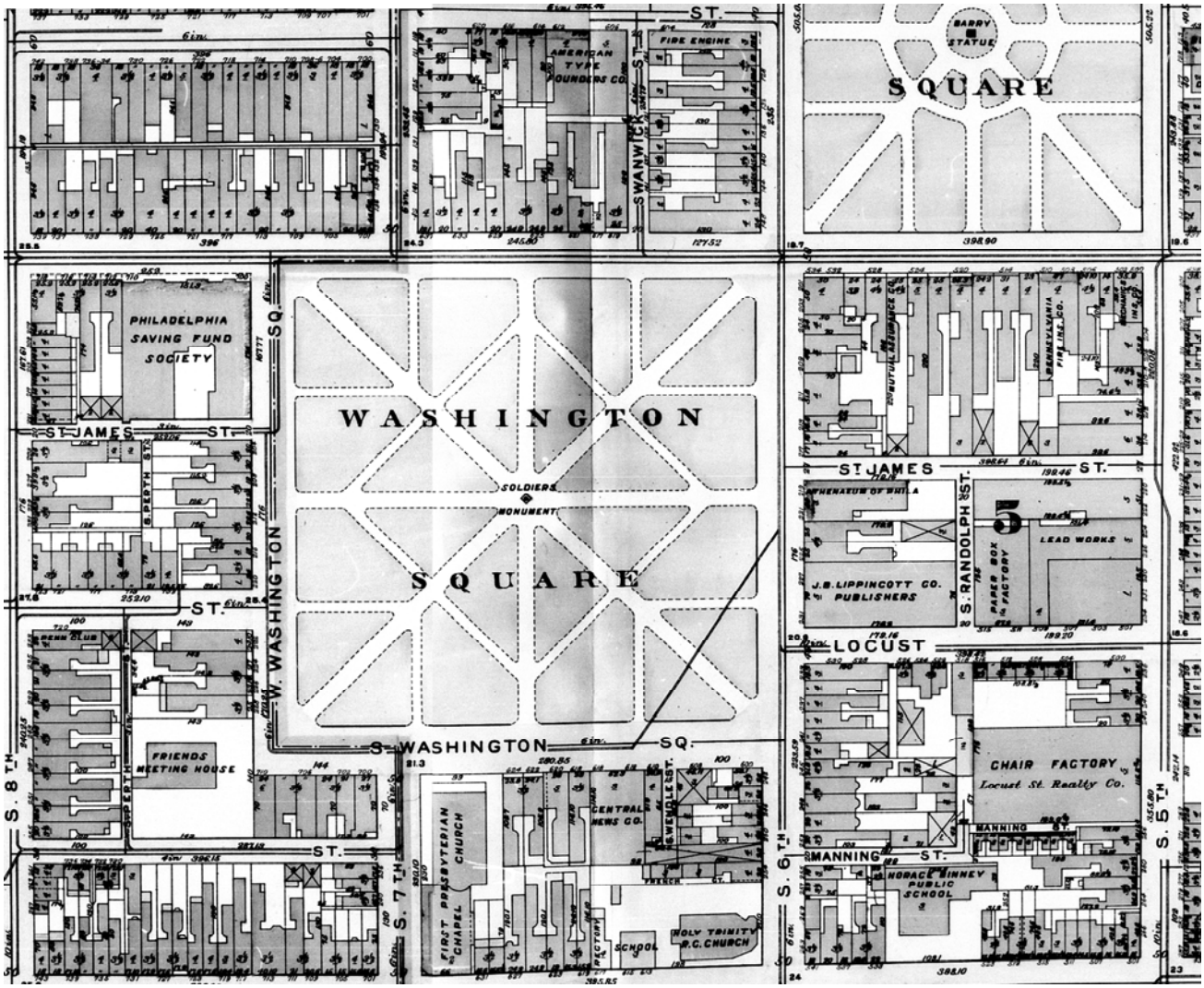


Figure 2.6: *Bromley's 1908 "Atlas of Philadelphia" showing City Commissioner of Property William F. Dixey's design for Washington Square, including the Washington Gray's monument at the center of the square (University of Pennsylvania Library).*

In 1892, the position was filled by Alfred S. Eisenhower. In 1881, Dixey sued the City of Philadelphia to recover a portion of his salary that was due to him by the City. Dixey, along with another plaintiff, Chief Commissioner of Highways William Baldwin, won their respective suits.[33]

William F. Dixey also assumed the role of his predecessor, J.H. Pugh, at the Fairmount Park Commission in 1875, where he served as a commissioner until at least 1880.[34] His role in the Fairmount Park Commission after 1880 is undocumented. From 1887 to 1891, Dixey also served as a commissioner for the City Department of Parks *ex-officio*.[35] Similarly, his role in the City Department of Parks prior to 1887 is unknown.

Dixey was also responsible for the Centennial design of Independence Square in 1875. His plan for Independence Square consisted of a low, one foot high wall with coping surrounding the square, with stairs to enter the square at the corners and mid-block entrances. Each set of stairs was flanked by two gas lamps at the top. New flagstone paths at twenty and fifteen feet in width were proposed for the square with sub-surface drainage. A pedestal for a single sculpture was placed at the center of the square, at the intersection of the two main paths.

Dixey's 1881 design for Washington Square changed the square by realigning paths from a circular design into straight walks on the diagonal and at right angles to the adjacent streets (Figure 2.5). This change in walk layout resulted in a more efficient path connections, although the square became a less intimate pleasure ground. For the first time, the walks were paved with "flagstone" and the fence was removed from the perimeter of the square to be replaced with a nine-inch granite coping, consistent with the treatment of nearby Independence Square. Dixey's design retained existing trees, with the exception of those in the line of new paths. In 1898, the Washington Grays monument was moved from its original location at the Broad Street and Girard Avenue to the center of Washington Square. By the end of the nineteenth century, a growing association had developed between Washington and Independence Squares, which by that time shared a strong visual connection created by the diagonal walks that met at the intersection of Walnut and Sixth Streets. The squares shared other similar landscape features as well; including low coping, planting style, monument at center. Little is known about Dixey's professional training or experience. It is undocumented if Dixey designed or implemented the plans for Washington and Independence Squares.

Olmsted Brothers, Landscape Architects

The landscape architecture firm founded by Frederick Law Olmsted in New York in 1857 remained in active practice until its Brookline, Massachusetts location was acquired by the National Park Service in 1979. During its 120-year life span, the Olmsted firm's body of work included a portfolio of over 6,000 design projects in nearly every state in the nation, as well as Canada, Argentina, Bermuda, Cuba, England, Panama, the Philippines, and Venezuela. This included projects in fourteen categories: parks, parkways, recreation areas and scenic reservations; city and regional planning and improvement projects; subdivisions and suburban communities; college and school campuses; grounds of residential institutions; grounds of public buildings; private estates and homesteads; cemeteries, burial lots, memorials and monuments; grounds of commercial and industrial buildings; country clubs, resorts, hotels and clubs; grounds of churches; arboreta and gardens; exhibitions and fairs; and miscellaneous projects. They are largely credited as the founders of the American profession of landscape architecture.

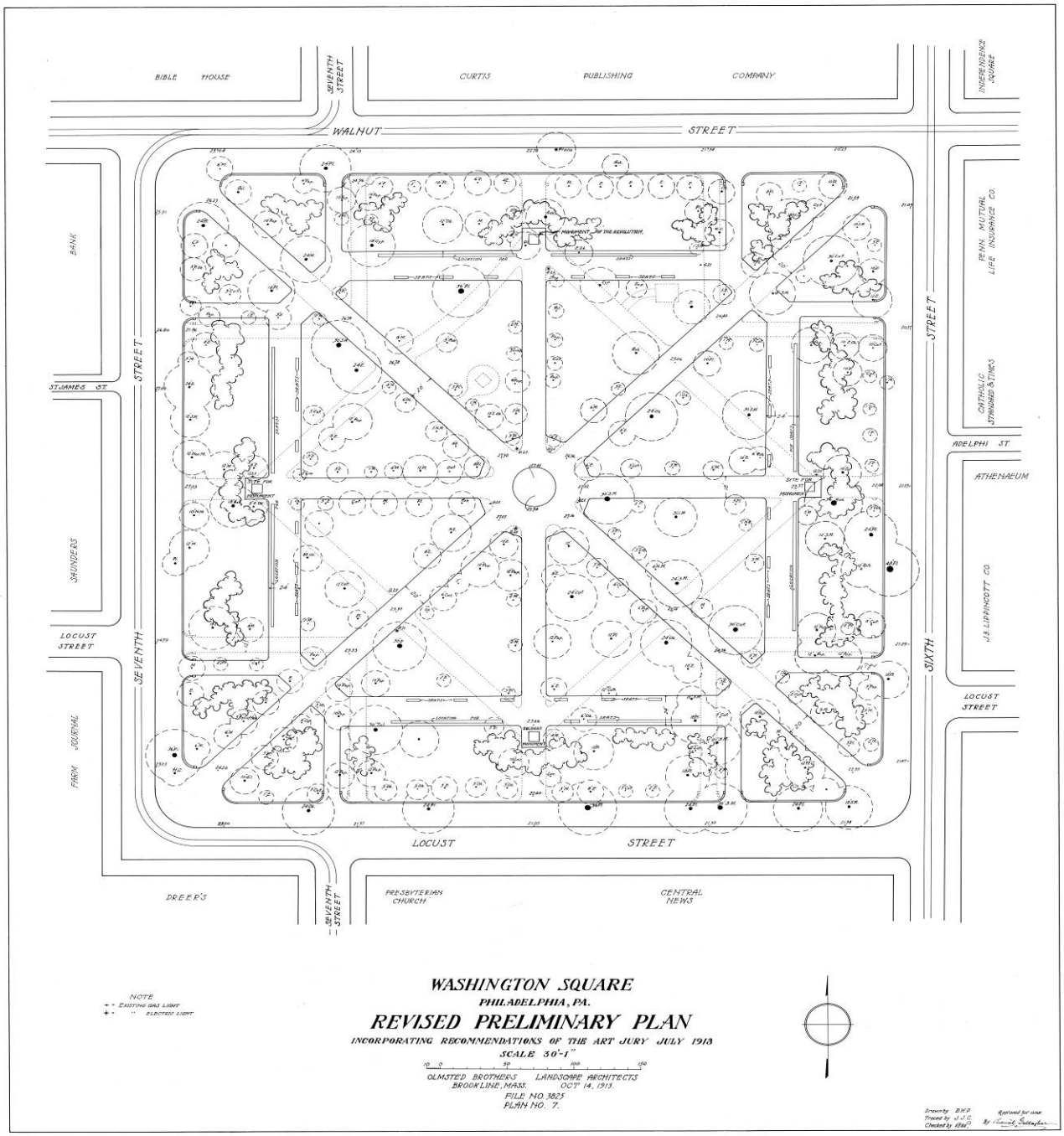


Figure 2.7: *Revised Preliminary Plan for Washington Square, Olmsted Brothers, Landscape Architects, July 1913 (NPS, Frederick Law Olmsted National Historic Site).*

In 1857, Frederick Law Olmsted and Calvert Vaux entered their Greensward Plan in the design competition for Central Park in New York City, resulting in the first place prize in 1858. Olmsted and Vaux worked together to design several commissions in New York and Connecticut, as well as significant park, parkway, and planned suburban designs for Buffalo, Chicago, and Riverside, Illinois. The partnership continued until 1872, when Olmsted was joined by his stepson, John Charles Olmsted in their New York office. By 1878, the firm was transitioning out of New York into Boston, where they were engaged in the design for a major park system, with a permanent move to Brookline, Massachusetts in 1883, where Olmsted established the first full-scale professional landscape architecture office in the nation (now the Frederick Law Olmsted National Historic Site).

In 1884, John Charles Olmsted became a full partner with his stepfather, subsequently joined by Henry Sargent Codman and Charles Eliot, who both died prematurely, leaving J.C. Olmsted as the only surviving successor personally trained by the senior Olmsted. During this period, the firm's contributions to the field of landscape architecture also included park systems for Louisville, KY and Rochester, NY, the Niagara Reservation, World's Columbian Exposition in Chicago, Stanford University, and the Druid Hills subdivision in Atlanta.

Soon after Frederick Law Olmsted's retirement in 1895, John Charles was joined by Frederick Law Olmsted Jr. and the new partnership of Olmsted Brothers, Landscape Architects was created by 1898. This iteration of the Olmsted firm lasted from 1898-1961 and spanned the most productive years of design work, particularly the first three decades of the twentieth century. At its height in the 1920s, the Olmsted Brothers employed up to sixty staff, with commissions growing to 2,500 with major park work in metropolitan areas throughout the U.S. Other partners included James Frederick Dawson, Percival Gallagher, Edward Clark Whiting, and Henry Vincent Hubbard. Of the partners listed in the Olmsted Brothers firm records, Percival Gallagher is the signatory on the Preliminary Plan for Washington Square (Figure 2.6). Gallagher studied horticulture at the Bussey Institution and the Arnold Arboretum, and joined the Olmsted firm in 1894, one year before the senior Olmsted retired. In the office, he was recognized for his effective planting schemes for estates and parks, and for solving "special problems" for college campuses including Bryn Mawr, Haverford, Swarthmore, Vassar, and Duke.[36] He also worked on plans for League Island Park in Philadelphia, executed at the same time as Washington Square.

The Master List of Design Projects of the Olmsted Firm, 1857-1979, lists ten projects in the category of parks, parkways, recreation areas, and scenic reservations (each with an assigned job number) for Philadelphia, including Washington Square, although only six advanced into design plans.[37] This includes Fairmount Park (no plans, correspondence 1866-1898); Fairmount Park Extension (8 plans 1914-1929, correspondence 1913-1914, 1929); League Island Park/Southern Boulevard Park (77 plans 1910-1913, correspondence 1912-1925, 1968-1974); Northeast Boulevard (30 plans 1910-1913, correspondence 1910-1915, 1920); Pastorius Park Extension (14 plans, 1916-1921, correspondence 1921-1922); Philadelphia Park System (0 plans, correspondence 1895, 1904-1905); Philadelphia Parks (0 plans, correspondence 1909-1916); Washington Square (6 plans, 1913, correspondence 1912-1913); Willow Grove (no records); and Wissahickon Drive (0 plans, correspondence 1868-1873). In the category of city and regional planning and improvement projects, the firm listed only two projects in Philadelphia – Commission for City Plan (no records) and the Philadelphia Maine Line Citizens Association (14 plans, 1919 and correspondence 1919-1929). According to Charles Beveridge, Editor of the Olmsted Papers, in the time period between Frederick Law Olmsted's retirement and the death

of John Charles Olmsted, the Olmsted Brothers firm designed extensive park systems in many cities.[38] The renovation of Washington Square was completed while the firm was working on a large number of parks Denver, CO and on the Mall and Rock Creek Park in Washington, D.C. The Olmsted Brothers plan for Washington Square (Figure 2.6) created an ordered, symmetrical system of pathways, emphasizing the diagonal connections to each of the four corners, with a central circle. Interior paths parallel each of the four streets. Vegetation consists of scattered specimen trees in grass, many of which were retained from the existing plantings, as well as shrub massings to define edges of the cross-axis and in the open beds. While this plan shares much in common with the later Brumbaugh Plan and the existing configuration of Washington Square, it differs in its treatment of memorial(s). The Olmsted plan shows locations for four memorials at the terminus of the cross-axes, while the later Brumbaugh Plan set aside one major monument location west of the central circle.

In the body of the work of the Olmsted firm, Washington Square represents improvements to an existing park, rather than the wholesale development of a new park or park system, such as the firm's important contributions to the City Beautiful movement evident in Chicago and Washington, D.C. It was created at the height of the work of the Olmsted Brothers, at a time when they were actively working on a number of significant parks throughout the nation including plans for a large number of small urban squares in Boston. The work for Washington Square is not characteristic of a typical Olmsted park, largely due to size and its symmetrical design, but it presents a well-ordered and functional plan that suited Philadelphia and restored Washington Square to an urban promenade from an efficient path network previously implemented by William Dixey. The basic form of the Olmsted design carried through into the subsequent Brumbaugh plans.

Community and Neighborhood: African American Gathering & Burial

Independence National Historical Park General Management Plan states that Washington Square will be a place for the interpretation of the eighteenth century African American experience. The square is historically significant as a site associated with the early history of African Americans in Philadelphia. Furthermore, the history of Washington Square enhances the understanding of the connection between individuals and eighteenth century Philadelphia culture and society. Washington Square also traces the evolution of the black religious community during the eighteenth century through cultural norms and changing circumstances.

Religion & the Underground Railroad

Black society in Philadelphia was comprised of both free and enslaved individuals. As the center of the establishment of the Religious Society of Friends in the U.S., Philadelphia was home to a large Quaker population. They provided a hospitable environment to free blacks, as the Quaker faith required that members free their slaves and cease any activity in the slave trade.[39] The Pennsylvania Abolition Society, initially established in 1775, was the first such society in the nation, and the Pennsylvania Assembly passed the first abolition act in 1780. Benjamin Rush, prominent abolitionist and a signor of the Declaration of Independence, published two antislavery essays in 1773 and 1792. The Underground Railroad also has roots in Philadelphia's religious community, particularly related to two community leaders, Richard Allen and Absalom Jones, both black men born into slavery, who purchased their freedom.

In 1787, Richard Allen, a minister associated with St. George's Methodist Church on Fourth Street, joined with Absalom Jones to establish the Free African Society, a mutual aid society. The society appealed to the white community for support, but faced

resistance. In 1793, a yellow fever epidemic plagued the city, and both Absalom Jones and Richard Allen ministered to the sick and dying, which brought them wide recognition within the black community. The Free African Society answered the mayor's call by providing nurses and gravediggers for the city during the epidemic, with about one third of the resulting dead (1,334) buried in the Potter's Field.[40] Public appreciation for the contributions of the Free African Society paved the way for the black community to establish two churches.

In July 1794, Jones helped to formalize a union between the African Church of Philadelphia and the Episcopal Church, establishing the St. Thomas African Episcopal Church on Fifth Street. With the assistance of Benjamin Rush, who helped raise funds for the Free African Society, the African Church of Philadelphia preserved the right of self-governance over their church's religious affairs.

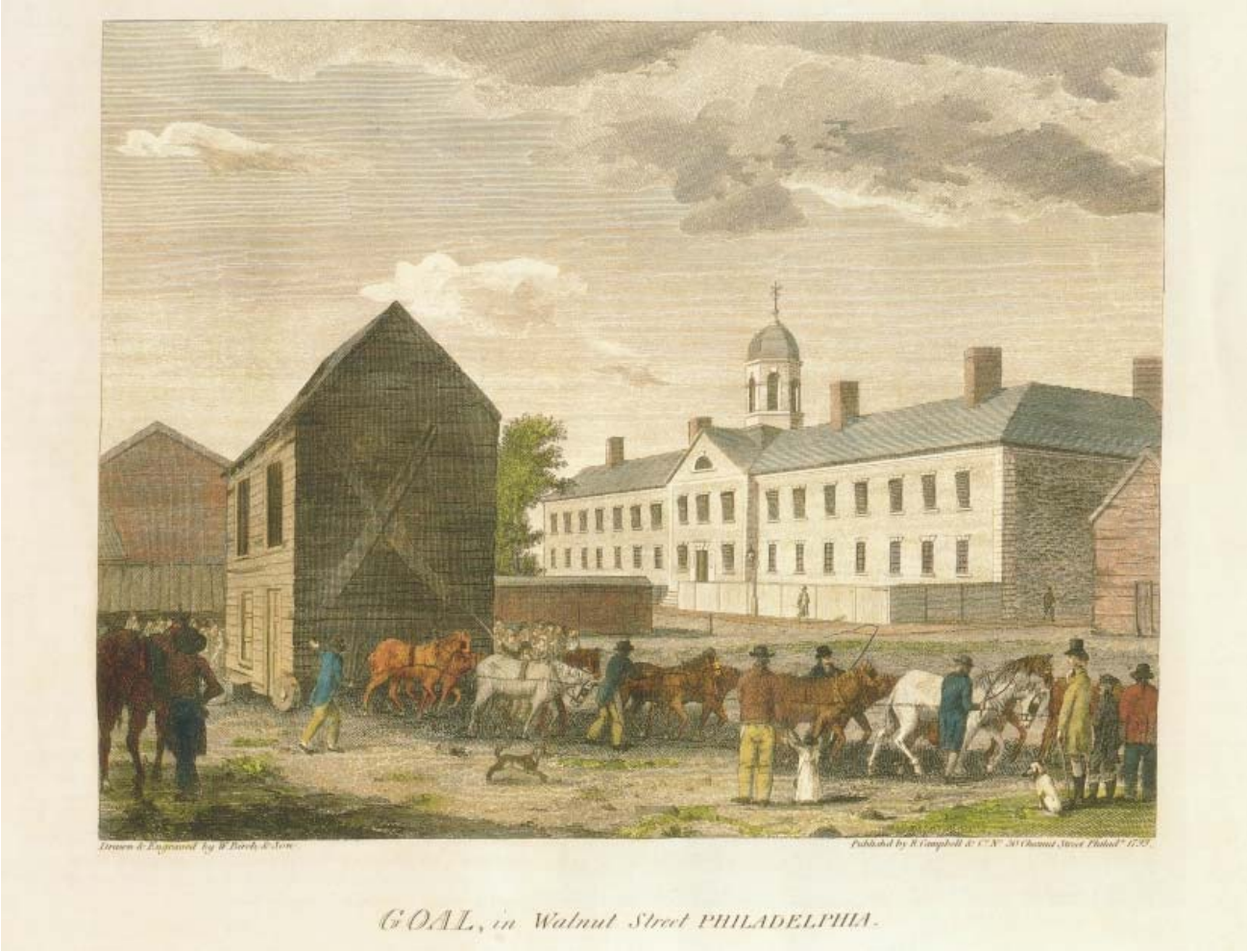


Figure 2.8: *The two-story wooden structure was a former blacksmith shop that was purchased by Reverend Richard Allen who had it rolled over ground and placed on a lot he owned at the northeast corner of Sixth and Lombard Streets. In 1794, the building became the first home of the Bethel African Methodist Episcopal Church. Today, the church is known as the Mother Bethel African American Methodist Episcopal Church, and its present building was constructed in 1890 on an adjacent lot (W. Birch & Son. The City of Philadelphia…as it Appeared in the Year 1800, Plate 24 from The Athenaeum of Philadelphia).*

At the same time, Richard Allen chose to remain a Methodist, opening Mother Bethel in 1794, which in 1817 became the independent African Methodist Episcopal Church, located at Sixth and Lombard Streets (Figure 2.7). Bethel, now a National Historic Landmark, remains in its original location a few blocks south of Washington Square, and was a known station for the Underground Railroad.

Gathering

The proximity of Washington Square to the developed portion of the city in the eighteenth century also made it a popular gathering place. In 1738, the minutes of the City Councils indicate that large black gatherings were prevalent, when an ordinance was circulating in the City Councils "for the better regulation of the more Effectual suppressing Tumultuous meetings and other disorderly doings of the Negroes, Mullatos [*sic*], and Indian servts [*sic*] and slaves within the City and Liberties thereof."

Complaints were again issued in 1741 against "many disorderly persons that meet every ev'g. about the Court house of this city, and great numbers of Negroes and others sit there with milk pails, and other things, late at night, and may disorders are there committed against the peace."[41] Officially, the city responded by ordering that all persons depart within half an hour after sunset.[42] However, it is likely that these complaints and subsequent orders only pushed the free and enslaved blacks from the center of the city to the area near Southeast Square. Gatherings in Washington Square are well documented in the *Annals of Philadelphia*. Writing in 1830, John Fanning Watson (1779-1860) noted the presence of blacks in Washington Square:

> It was the custom for the slave blacks, at the time of fairs and other great holidays, to go there [to the Potter's Field] to the number of one thousand, of both sexes, and hold their dances, dancing after the manner of their several nations in Africa, and speaking and singing in their native dialects, thus cheerily amusing themselves over the sleeping dust below! An aged lady, Mrs. H.S., has told me she has often seen the Guinea negroes, in the days of her youth, going to the graves of their friends early in the morning, and there leaving them victuals and rum![43]

While Dr. Charles Blockson referred to Washington Square during the colonial period as "Congo Square" in his book *Philadelphia 1639-2000*, this term has not been corroborated in other sources. It is possible that the name was not recorded in writing but rather passed through the oral tradition of the black community. In a paper given in 1958, Marion Rivinus reported that "some negroes and freedmen, in their colorful costumes, are doing a Calypso in the center of the square. Fortunately as it is not Fair Day when they gather here in the thousands…"[44]

In recent history, Washington Square has been the site for Philadelphia's celebration of Juneteenth, the oldest known celebration commemorating the ending of slavery in the United States, which is held annually on June 19th.[45] The holiday commemorates the announcement of the abolition of slavery in Texas in 1865, but has since been widely recognized as a celebration of emancipation across the country, with the signing of the Emancipation Proclamation in 1862, effective the first day of 1863.

Burial

Washington Square was the only one of Philadelphia's original five squares granted by patent from William Penn to the mayor and people of the City of Philadelphia on January 29, 1706 for use as a burial ground:

> The purpose of that grant declared to be 'for a common burying-place for the service of the city of Philadelphia for interring the bodies of all manner of deceased persons whatsoever, whom there shall be occasion to lay therein.' For the improvement of the burying-place, full and free liberty was given to the mayor and corporation 'to

> enclose, fence, plant, build on, or by any ways or means whatsoever that will improve the aforesaid piece of ground.[46]

Scharf and Westcott note that in 1764, over 50 Indians were buried in the Potter's Field, all of whom died of smallpox and fever.[47] In 1765, Dr. William Shippen Jr., Professor of Anatomy and Surgery, used bodies from the Potter's Field in his Anatomical Lectures, presented at the College of Philadelphia. "The Bodies he dissected, were either Persons who had willfully murdered themselves, or were publickly [*sic*] executed, except now and then one from the Potters Field, whose Death was owing to some particular Disease; and that he never had one Body from the Church, or any other private Burial Place."[48] However, it seems that the black community felt targeted by Shippen's selection of subjects from the Potter's Field.

In 1782 James Dexter, a freed slave and activist, was one of six men who petitioned the city to install a fence around "Potter's Square," Philadelphia's black burial ground, as he called it. However, Dexter and others were unsuccessful in their bid to fence the black burial area.[49] Philadelphia City Council Minutes for September 29, 1796 note that the square is "now enclosed by a board fence. In the center of the Square is a small portion of Ground enclosed with a brick wall and used as a burial place in which some of the family of J. Carpenter are interred, by what right unknown." (Mr. Carpenter was formerly mayor of Philadelphia.) In May 1790, the Free African Society attempted to lease the Potter's Field to officially turn it into a black cemetery under the Society's control but the request was denied by the city.[50]

In a 1787 letter from William Shippen Jr. to his son, Shippen wrote, "we have and are still at a great loss for want of a Subject for dissection and demonstration, few dies [*sic*] and the negroes have determined to watch all who are buried in the Potters field – the young men have been twice driven off by arms, once fired on and two wounded, with small shot, on Saturday night with the assistance of six invalids with muskets they beat off the negroes and obtained a corps [*sic*]. I lodged it in the Theater. The resolute impertinent blacks broke open ye. house stole ye subject and reburied it."[51] Upon subsequently hiding a second subject for dissection in his hay loft, Shippen's house was mobbed by "3 or 400 sailors, negroes, &c."[52] In the letter, Shippen indicates that the Potter's Field is patrolled nightly by armed blacks. The black community regularly gathered in the square and as a result developed a tradition of watching over the unfenced black burial ground.

Historic Preservation and Commemoration in the Late Nineteenth and Early Twentieth Centuries

This area of significance is related to the theme Creating Social Institutions & Movements: Clubs & Organizations. The Washington Square Planning Committee and the Washington Square Planning Association have played an important role in the rehabilitation of Washington Square in the nineteenth and twentieth centuries, including the memorialization of George Washington and Revolutionary War soldiers. The first evidence of commemoration is the re-naming of Southeast Square as Washington Square, which was first proposed in 1816 and appears on the original Bridport plan, but was not officially approved until 1825. The Centennial of Washington's birthday also sparked interest in a commemorative monument, but public subscriptions were not sufficient to fund a monument so only a cornerstone was laid in the square in 1833. The Philadelphia Centennial Exposition of 1876, which had national influence on the appreciation of American's design history and the resulting interest in Colonia Revival design, may have influenced William Dixey, who completed important design plans for both Independence and Washington Squares. Dixey's plan for Washington Square recommended a single major monument in the center of the square, and the Washington Grays

monument was placed there in 1891, later moving to another location in Washington Square before it was finally relocated to Fairmount Park in 1954 at the same time G. Edwin Brumbaugh (1890-1990) was completing plans for the rehabilitation of Washington Square. Brumbaugh introduced Colonial Revival features and a major memorial commemorating George Washington and the Revolutionary War soldiers buried in the square.

As the twentieth century began, the historic preservation movement responded to the revival styles popular in American design. Between 1920 and 1950, a variety of preservation-related movements and events raised awareness of historic preservation. They include the restoration of Colonial Williamsburg in the 1930s, the Historic Building and Sites Act of 1935, the chartering of National Trust for Historic Preservation in 1949, and the Historic Preservation Act of 1966. The Philadelphia Chapter of the AIA established a Committee on Preservation of Historic Monuments in 1898 and in the 1920s, the Philadelphia AIA focused on colonial buildings and a general interest in the colonial period in Philadelphia with an important plan for Independence Square completed in 1916-17.

G. Edwin Brumbaugh, though not nationally known, was an important figure in the preservation movement in Pennsylvania. Born in 1890, Brumbaugh graduated from the University of Pennsylvania in 1908, working in the architectural offices of Mellor and Meigs and Charles Barton Keen until he opened his own firm in Philadelphia in 1926.[53] He had a strong interest in the early architecture of Pennsylvania and is the author of the 1933 publication, *Colonial Architecture of the Pennsylvania Germans.* Beginning in 1926, Brumbaugh's design work appears to be solely in the Colonial Revival style, which led to an increasing focus on the restoration of colonial period buildings. Thus, by 1950, he had established a very successful restoration practice based in Gwyned Valley, Pennsylvania including important architectural preservation projects for Ephrata Cloister, Independence Hall, Gloria Dei, and the Daniel Boon Homestead.[54] While he appears to have much preferred authentic original, period buildings, Brumbaugh did not shy away from the creation of revival or faux-historic environments to enhance the setting of existing buildings.[55] Throughout his career, Brumbaugh is known for his attention to accuracy and historical documentation, which is reflected in the Colonial Revival style wall for Washington Square, and perhaps for the Washington monument that graces the Memorial to the Unknown Revolutionary War Soldier; this is a replica of the noted eighteenth century French sculptor Jean-Antoine Houdon's full-size sculpture of Washington, created in 1785-88 and located in the rotunda of the Virginia State Capitol.

While little has been written about the contributions of G. Edwin Brumbaugh, his design work for Washington Square introduced prototypical Colonial Revival elements such as the perimeter wall and modified replica lights, as well as finally realizing a permanent memorial commemorating George Washington and the soldiers of the Revolutionary War. In this way, it is both atypical (landscape) and typical of Brumbaugh's work, illustrating the integration of his dual interests in the Colonial Revival with the preservation of an important eighteenth century historic site.

Commemoration of important individuals and events in the history of Philadelphia have continued in Washington Square since 1957 in the form of small memorials and plaques, but these commemorative objects are not individually significant.

Archeology: Colonial Period Burial Ground

Both primary and secondary documentary source material record the use of the square as a burial ground early in its history, including reference to as many as two thousand American soldiers and victims of yellow fever, as well as blacks, Native Americans, Catholics, and private burials. Several archeological studies have confirmed the presence of buried remains and the square's early use as a potter's field. The square has been assigned archeological site number 36PH105 by the Pennsylvania Historical and Museum Commission. These investigations began with excavations in 1956 along the southern and western sides of the square, directed to locating a Revolutionary War Soldier to be interred in the Memorial sarcophagus, conducted by Lt. Col. Duncan Campbell, John Witthoft, and Joseph Holmes. Four burials were discovered in the northwest corner of the square. John Milner Associates conducted two archeological investigations in the 1996 and 2000 respectively. The first focused on excavations in the interior of the square and along the perimeter sidewalk. The first revealed human remains in the western side of the square, with other archeological features found outside the northeast corner. Archeological work in 2000 by John Milner included monitoring construction activities; in the course of construction work, a total of seventeen (17) burials were found, the majority of which were found in the northwest quadrant of the square. In the nineteenth century, Scharf and Westcott also noted Native American burials in 1764, Catholics buried in the southeast part of the square before 1760, and that unidentified remains had been disturbed in 1832 when the cornerstone was laid for the proposed Washington monument.[56]

The patent issued by William Penn to the City of Philadelphia noted "the purpose of the grant was declared to be 'for a common burying-place for the service of the city of Philadelphia for interring the bodies of all manner of deceased persons whatsoever, whom there shall be occasion to lay therein.' For the improvement of the burying-place, full and free liberty was given to the mayor and corporation 'to enclose, fence, plant, build on, or by any ways or means whatsoever that will improve the aforesaid piece of ground.'"[57] William Penn had set aside Southeast Square as a potter's field and stranger's burial ground in 1704, with the City assuming control over the property in 1706.[58] The first documented burial in Southeast Square appears to be a 40 x 40' burial ground used by the Carpenter and Story families in the early eighteenth century. A 1753 Plan of the City of Philadelphia by Skull and Heap labels the square as "The Corporation Burying Ground." With the use of the south side of the square by both freed and enslaved African Americans during the early part of the eighteenth century, it appears that they also buried their dead in the square. During the Revolutionary War, dead soldiers were carried from the Pennsylvania Hospital and other locations nearby, to "hastily dug graves in Washington Square."[59] In 1777, John Adams described the square in a letter to his wife, Abigail:

> I have spent an Hour, this Morning, in the Congregation of the dead. I took a Walk into the Potters Field, a burying Ground between the new stone Prison, and the Hospital, and I never in my whole Life was affected so with so much Melancholly. The Graves of the soldiers, who have been buried, in this Ground, from the Hospital and bettering House, during the Course of the Last Summer, Fall, and Winter, dead of the small Pox, and Camp Diseases, are enough to make the Heart of stone to melt away. The Sexton told me, that upwards of two Thousand soldiers had been buried there, and by the Appearance, of the Graves, and Trenches, it is most probable to me that he speaks within Bounds. To what cause this Plague is to be attributed, I don't know –

> disease has destroyed ten men for us where the sword of the enemy has killed one![60]

Burials associated with Revolutionary War continued through 1778, with additional burials including victims of the yellow fever outbreak of 1793, when approximately 10% of Philadelphia's population died of the plague. One source cited by John Milner Associates indicates that 1,334 burials were made in Washington Square between August 1 and November 9, 1793.[61] The Potter's Field was closed around 1795, though some sources suggest that burials continued until about 1800. Shortly thereafter, the City ordered improvements to the square, such as walks and trees that gradually transformed it into an urban park by about 1825.

Archeological resources recovered during monitoring of the rehabilitation of the square in 1998 include the remains of seventeen individuals, sixteen of which were male and many were presumed to be Revolutionary War soldiers. Artifacts recovered during the monitoring included a variety of earthenware, redware, and creamware sherds, most of which dated to between 1640-1820. Other archeological resources found during the construction included the former channels of the two Dock Creek feeder streams and culvert, which based on associated artifacts, was likely constructed in the early nineteenth century.

Given the substantial body of documentary and physical evidence regarding the extent of archeological resources at Washington Square described above, it is likely that the square holds the potential to reveal additional information about physical changes and alterations undertaken throughout the period of significance (1682-1957) beyond its significance as a burial site. That said, given the number of physical alterations, it is not known to what degree the below-ground resources have been disturbed.

Public Horticulture: Washington Square as an Urban Arboretum

Philadelphia has, since the seventeenth century, played a pivotal role in the development of horticulture in the U.S. In *Arboriculture: History and Development in North America*, Richard Campana credits William Penn with the earliest city design for trees in parks (1680), and John Bartram for the earliest botanical garden (1780). Humphry Marshall of Pennsylvania, cousin of John Bartram, was the first American to publish a book on the nation's native trees and shrubs, titled *Arbustum Americanum,* published in 1785 and financed by Samuel Vaughan who had been actively involved in recommendations for tree planting at Independence Square.[62] Botanist André Michaux established a nursery in nearby New Jersey after arriving in America in 1785; in collaboration with his son, they documented the flora of the eastern North American trees, resulting in the publication of the *Flora Boreali-Americana* in 1803 and the *North American Sylva* from 1817-19.[63] Others, including Dr. Benjamin Smith Barton of Pennsylvania University and Thomas Nuttall, who arrived in Philadelphia in 1808, undertook focused explorations of native plants in the Western and Southern U.S. at the turn of the seventeenth and eighteenth centuries.

The introduction of Lombardy Poplars around the perimeter of Washington Square began around 1794 as the first documented introduction of cultivated trees intended for aesthetic enhancement of the square. The Lombardy Poplar had been introduced into the new country only a decade earlier by William Hamilton of Philadelphia, although according to Hedrick's *History of Horticulture in America*, some authors credit André Michaux in 1785. By 1798, it was available for purchase from Prince Nursery in Flushing, NY.

By 1816, Bridport and others recommended the introduction of a large number and variety of trees that had been recently cultivated from native North

American species, or brought to the New World by European settlers. The early plant lists for Washington Square include a diverse list of species that were not yet widely available commercially, or for which hardiness was not yet widely documented, so that many did not survive. This intense focus on tree planting came at a pivotal time in the development of horticulture in the U.S. In the mid eighteenth century, noted English landscape gardener John Claudius Loudon reflected on the scarcity of nurseries in America:

> Four or five public nurseries are all that recollected in the states in 1810, and these were by no means profitable establishments. About 1815, a spirit of improvement in horticulture as well as in agriculture began to pervade the country, and the sphere of its influence has been enlarging and the force of example increasing down to the present time…[64]

John Bartram established his garden outside Philadelphia "to collect, test, and exchange plants with both American and European counterparts."[65] Bartram is responsible for the introduction of the Norway Maple in 1835, cultivation of the Franklinia tree, and for the introduction of many other native trees and shrubs. At the time of Loudon's essay, Bartram's garden was managed by his granddaughter Anne Bartram Carr and her husband, Colonel Robert Carr whose foreman, William Wynne noted "this garden is the regular resort of the learned and scientific gentleman of Philadelphia."[66] The notion of horticulture as the avocation of learned gentlemen led the Philadelphia Society for the Promotion of Agriculture to create the Pennsylvania Horticultural Society (PHS) in Philadelphia in 1827. The PHS was widely known for its literature collection in areas of horticulture, botany, agriculture and natural history, which by 1852 was reported to be the largest such library in the U.S.[67] By the 1830s, Horticulture Society members who lived near Washington Square were actively involved documenting existing trees.

The earliest native trees cultivated in the U.S. include American Elm, Sugar Maple, Red Oak, Catalpa, and Sweetgum, which, except for Red Oak (first recorded in 1842), are all recorded at Washington Square in 1816 (Appendix G). In the eighteenth century, English naturalists Mark Catesby published the first natural history of North America, focusing on Carolina, Florida and the Bahamas. He recorded for later cultivation, Black Gum, Fringetree, Pawpaw, and Umbrella Magnolia, which also comprise the early plant lists for Washington Square. Weeping Willow is known to have been well-established in urban Philadelphia by the 1790s, and William Hamilton of Philadelphia is credited with the introduction of Tree of Heaven in 1784.[68] The diversity of trees found in the earliest plant lists for Washington Square reflects the history of plant cultivation in the U.S. and illustrates the importance of Philadelphia's contribution to the development of horticulture.

As a continuously maintained urban space with a diverse tree collection, Washington Square remains as an important public arboretum. Andrew Jackson Downing wrote in his *Rural Essays* in 1853:

> We do not forget that large and sylan [*sic*] park, with undulating surface, the Boston Common, or that really admirable city *arboretum* of rare trees, Washington Square of Philadelphia (Which probably contains more well grown specimens of different species of forest-trees, than any similar space of ground in America). Their groves are as bellowed and sacred in our eyes, as those of *Deo-dar* are to the devout Brahmins.[69]

Landscape Integrity

Integrity is the ability of a property to convey its historic identity, or the extent to which it evokes its appearance during a particular historic period, usually the period of significance. While the evaluation of integrity is often a subjective judgment, particularly for a landscape, it must be grounded in an understanding of a property's physical features and how they relate to significance. The National Park Service defines **historic integrity** as "the authenticity of a property's identity, evidenced by the survival of physical characteristics that existed during the property's prehistoric or historic period."[70]

The National Register of Historic Places identifies seven **aspects of integrity**: location, design, setting, materials, workmanship, feeling, and association. Retention of these qualities is essential for a property to convey its significance, though all of the seven qualities need not be present to convey a sense of past time and place.

- **Location** is the place where the historic property was constructed, or the historic event occurred.
- **Design** is the combination of elements that create the form, plan, space, structure, and style of a property.
- **Setting** is the physical environment of a historic property.
- **Materials** are the physical elements of a particular period, which includes plant materials, paving, and other landscape features.
- **Workmanship** includes the physical evidence of the crafts of a particular period.
- **Feeling** is a property's expression of the aesthetic or historic sensibilities of a particular period.
- **Association** is the direct link between an important historic event or person and an historic property.

Summary of Changes to the Washington Square Landscape, 1682 to present

Penn/Holme Plan (1682-1776)

The original location of Southeast Square is based on Thomas Holme's plan for the city authorized by William Penn in 1682. The shape of the square and its primary bordering streets were established by 1683 and enclosed by a wooden paling fence in 1706-08. During the colonial period, the landscape of the square consisted of a duck pond with two small streams running through the southeast and northeast corners of the site, converging on the eastern side of the square. A portion of the square was leased for pasture from 1706 to as late as 1814. By the first quarter of the 1700s, the Carpenter and Story families constructed a small brick wall-enclosed plot at the center of the square for family burials. Before 1790, the landscape of Washington Square was used as a potter's field for burials of free and enslaved blacks, victims of suicide and the Yellow Fever epidemic of 1793, and prisoners of war from the Walnut Street Gaol. During the eighteenth century, the square was also a prominent location for gatherings and celebrations of free and enslaved Africans. Maintenance of the board fence around Washington Square was continued by Jacob Shoemaker from 1730 to 1765, who was also charged with burying "the bodies at least four feet and a half deep in the ground."[71]

Integrity: As an existing, landscaped square generally consistent with Thomas Penn's concept for an ideal city, Washington Square **retains integrity** from the Penn/Holme period.

Capital City Improvements (1776-1815)

By 1776, the square continued to provide a gathering place on holidays for African Americans, as well as burials for Revolutionary War soldiers and victims of the yellow fever epidemic of 1793. Beginning in about 1794, improvements to Southeast Square, such as the planting of Lombardy Poplars around the perimeter of the square and along Seventh Street,

began to give it a landscaped effect. Increased city and citizen interest in the square resulted in leveling the sloping terrain in 1803 and directing the watercourse that ran through the square into a culvert in 1805. A livestock market opened in 1797 along the western side of the square, and remained in operation until 1815. After the turn of the nineteenth century, Walnut and Sixth Streets were paved along the square.

Integrity: Since 1815, Washington Square has been modified several times into a formal, landscaped square. Some of the elements implemented during the Capital City period, such as grading, diverting the watercourse into an underground culvert, and the planting of street trees have continued, but overall, the square has **very low integrity** from this period, as it does not resemble the mix of uses present at the turn of the eighteenth to nineteenth centuries.

Bridport Design (1815-1881)

In 1815, the City Councils and Commissioners authorized the improvement of Philadelphia's public squares. Southeast Square appears to have been the study of design plans and improvements but was not truly opened for public use until sometime between 1825 and 1830, although initially, the public was only admitted during the summer and autumn months.[72] In 1816, George Bridport drew a new plan for Southeast Square, which formed the basis for improvements completed over the next three decades. As later plans show, it was ultimately executed in a simplified form (see Figure 2.4) with an iron fence surrounding the square (which replaced an earlier wood paling fence sometime after 1833); diagonal gravel paths across the square that met a circular path at the center, with a second circular path, located closer to the perimeter; and smaller circles intersecting the diagonals near each of the four corners. The area between pathways was planted in grass and specimen trees under the direction of Andrew Gillespie.

While the square acquired a more formal and urbane character and became the setting for promenading, the grass appears to have been maintained relatively high, as it was continuously used for hay production well into the mid-nineteenth century. After Washington Square was officially named in 1825, the desire to commemorate George Washington became a major focus of the both the Society of the Cincinnati and the Washington Monument Committee, though they succeeded in laying only a cornerstone by 1833. That same year, improvements to the square included the replacement of the wood fence was iron fence along the perimeter with iron and gates at key entrances; in 1837 the City Councils voted to illuminate the square with gas lamps. The last major change to the square during this period occurred in April 1869, when the Philadelphia Fountain Society erected a granite fountain and watering trough on the south side of Walnut Street bordering Washington Square.

Integrity: The landscape of Washington Square contains some of the elements first introduced during the Bridport period. The most of important features are the strong diagonal paths connected to each corner, which terminate in a central circle, although the character of the circle has changed over time. Also important is the concept of a grass ground plane planted with deciduous shade trees, which has been a consistent feature since 1817. The square still has a varied collection of specimen trees. The Bridport design, as executed in its simpler form, differs from present day in the treatment of the outer path system, which was a large circle in the Bridport, and is now rectilinear. The Philadelphia Fountain Society fountain and watering trough exists, but in a different location. Overall, Washington Square retains **partial integrity** from the Bridport period.

Dixey Plan (1881-1913)

The 1881 redesign by William Dixey changed the overall layout of Washington Square, by realigning paths from a circular design into straight lines

placed on the diagonal and at right angles to the adjacent streets. The new walks were paved with "flagstone," taking the place of the gravel material associated with the Bridport design. A low nine inch high granite coping replaced the iron fence enclosing the square. City Commissioners also recommended the addition of benches and lights for the benefit of the public. The Fairmont Park Commission added a decorative guardhouse to the square and continued to maintain the landscape as a significant public open space. The Washington Grays monument was moved into the center of Washington Square in 1898.

Integrity: Dixey's redesign further enhanced the diagonal paths, adding secondary connections to the adjacent streets that carried through into the Olmsted Brothers design. Dixey also changed Bridport's circular outer path into a square, but it is oriented as a diamond, rather than parallel to the adjacent streets. The first guardhouse is still extant, but the Washington Grays monument has been relocated out of Washington Square. Dixey is the first known to have introduced flagstone into the square, and this material has remained to the present, although it was replaced with "bluestone" in the 1990s.[73] Thus, Washington Square retains **partial integrity** from the Dixey Period.

Olmsted Brothers Plan (1913-1952)

The 1913 Olmsted Brothers plan for Washington Square simplified the arrangement of walks by eliminating the entrances at mid-block, but retained the strong diagonal from each corner, with each corner entrance composed of three paths (corner and each perpendicular street). The inner path was re-aligned into a square parallel to the surrounding streets. The Olmsted plan was implemented when the Fairmount Park Commission assumed control of the square in 1915. The Olmsted plan had recommended four specific locations for memorials/monuments at mid-block locations around the periphery of the square, but citizens continued to advocate unsuccessfully for new monuments in other locations to memorialize prominent individuals such as General Anthony Wayne. In 1916, the Philadelphia Fountain Society watering trough was relocated to the southern side of the square and the Washington Grays Monument was relocated to the western side of the square, similar to the memorial location identified in the Olmsted plan. During this period, citizen committees helped to raise funds for ongoing improvements including street tree planting in 1921, electric lights, and benches and in the summer of 1934, the Federation of Women's Clubs sponsored an open air library in the square. In 1937, the Society of Little Gardens in Washington Square planted additional trees. Very few changes, other than the Seventh Street cut off (1947), were implemented in the square in the 1930s and 40s.

Integrity: The Olmsted Brothers Plan retained the diagonal path system with an outer rectangle of paths that is still extant; paths continued to be paved with flagstone during this period. The major paths all converge in a central plaza with circle, as exists today. The treatment of the vegetated areas, primarily as grass with scattered specimen trees continued, but the Olmsted Brothers are the first to recommend additional shrub planting to shield park users from the adjacent streets, which became less necessary after the introduction of the Colonial Revival wall in the 1950s. Both guard houses existed during this period, as well as the Philadelphia Fountain Society watering trough, which are all extant. Gingkos planted as street trees as early as 1921, continue to the present. The treatment of memorials also changed in the Olmsted Brothers plan, and this symmetrical element including the location of the Washington Grays monument, has not survived. Washington Square has **moderate integrity** from the Olmsted Brothers period.

Brumbaugh Plan (1952-1990)

In 1953, the Fairmount Park Art Commission created a Washington Square Planning Committee, who selected G. Edwin Brumbaugh as architect and

Thomas W. Sears as landscape architect. Brumbaugh presented plans to the Committee in 1954, which included the addition of a Colonial Revival-style perimeter wall, which he proposed to encircle the square; the wall was subsequently constructed by John W. Cornell and completed by 1956. Brumbaugh also developed plans for new light fixtures based on Benjamin Franklin's gas street lamps, and fifty-four new lights were installed in the square. Sears recommended the selective removal of thirty-six trees, planting of four new trees, and extensive planting of shrubs and flowering bulbs. In 1956, the Committee commissioned Brumbaugh to design a monument to commemorate George Washington and the American Revolution, to be located on the western side of the square off the central plaza. Brumbaugh's monument consists of a bronze replica of Jean Antonie Houdon's standing figure of Washington, set on a granite sarcophagus that holds the remains of an unknown Revolutionary War soldier, backed by a wall inscribed "Freedom is a light for which many men have died in darkness." The circular pool and fountain in the center of the square was also designed by Brumbaugh and installed at the same time as the memorial. In 1954, the Washington Grays monument was removed from the western side of the square and placed in East Fairmount Park.

The Washington Square Association actively maintained the square and monument. In 1965, they hired Sears to continue to provide services related to tree maintenance and planting. Additional improvements were made in 1975 in anticipation of the Bicentennial, including new bollards, benches, bronze plaque, eternal flame, and planting around the Memorial to the Unknown Revolutionary War Soldier. The city installed and maintained play equipment in the square for the Bicentennial, but it was removed after a year.

Integrity: The Brumbaugh and Sears design for Washington Square is largely what exists today. Key features changed from the Olmsted Brothers design include the addition of the Memorial to the Unknown Revolutionary War Soldier and its associated flag plaza and circular fountain. Brumbaugh's Colonial Revival wall enclosure obviated the need for the shrub planting recommended by the Olmsted Brothers, though some shrub beds remain. Beyond those two major changes, the Brumbaugh and Sears plans retains the overall design of Olmsted Brothers Plan. The bluestone (flagstone) walks around the perimeter have been re-paved in brick, except at the primary (corner) entrances to the square. Later, the city replaced the Colonial Revival lights with a slightly different fixture during the rehabilitation of the square. Washington Square has **high level of integrity** from the Brumbaugh period, closing the period of the significance for the square at 1957 with the construction of the Memorial.

Transition from Fairmount Park Commission to the National Park Service (1990-present)

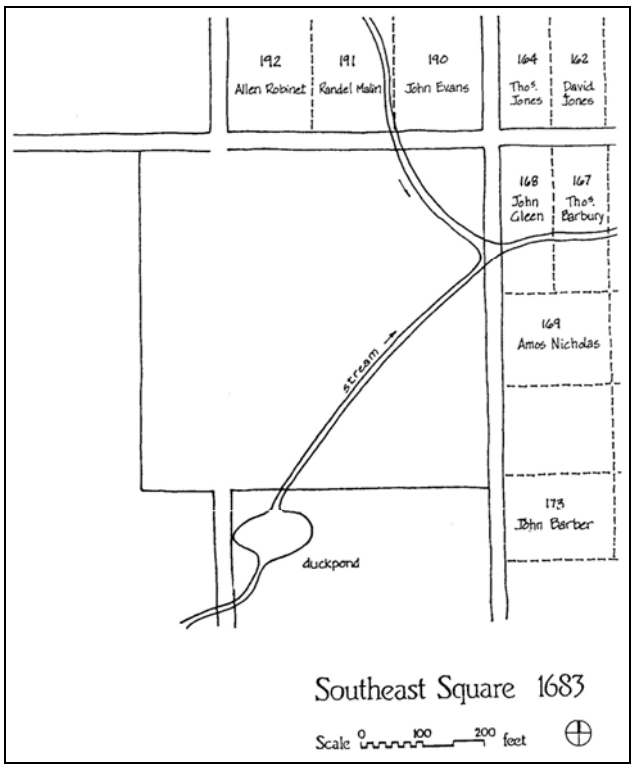
Beginning in 1990, the City of Philadelphia and the National Park Service worked together to transition the care and control of Washington Square from Fairmount Park Commission to Independence National Historical Park. The 1991 Memorandum of Understanding and four amendments facilitated collaborative work between the two agencies and the American Revolution Patriot's Fund, who worked to undertake a suitable and acceptable rehabilitation project with design plans by the Delta Group for the repair and replacement of paths, curbing, walls, and furniture in the square, including restoration of the width of the internal walkways and the replacement of Pennsylvania flagstone paving with New York bluestone. New additions to the square included teak benches, trash receptacles, and interpretive signage. The City completed additional improvements in 2000-2002 focused primarily on the Memorial to the Unknown Revolutionary War Soldier. Once the rehabilitation work was accepted by the Secretary of the Interior, a permanent easement over the 6.64-acre property was donated by the City of Philadelphia to the

National Park Service and title transferred in May 2005. Since then, the NPS has been responsible for ongoing stewardship of Washington Square as part of Independence National Historical Park. The Society Hill Civic Association has taken an active role in caring for their neighborhood's square, working collaboratively with NPS annually to plant flowers and shrubs at the square's entrances and in 2006 to fabricate the lily pad sculpture for the center of the fountain, as originally designed by G. Edwin Brumbaugh in 1956.

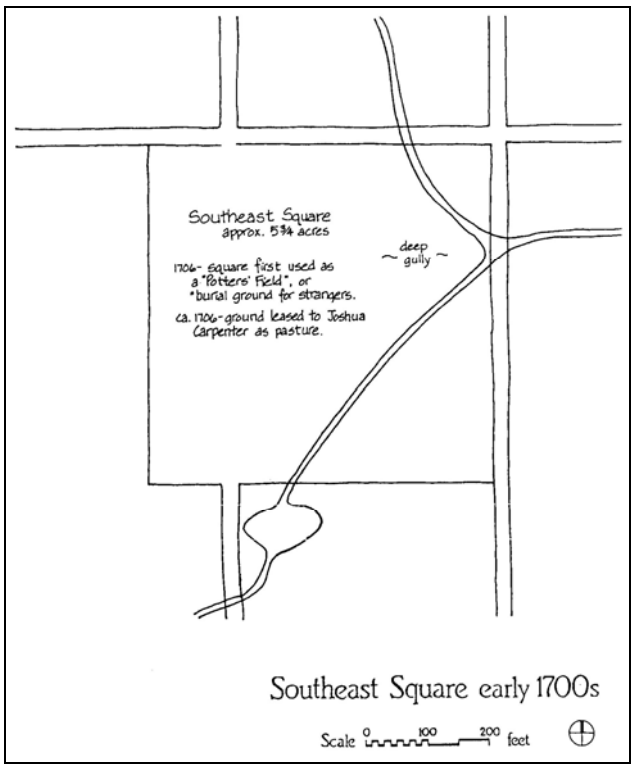
Integrity: Though not significant, recent rehabilitation efforts at Washington Square retained key elements integral to the character of the square, particularly as they relate to the Brumbaugh and Sears work, and the retention of the surviving elements of the Olmsted Brothers design.

Rabzak Diagrams for all Historic Periods

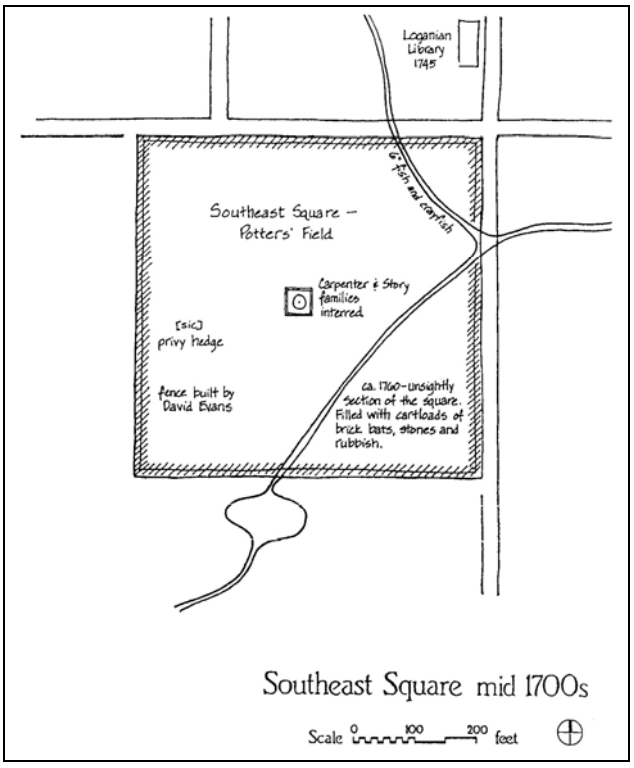
The following diagrams are from Denise Rabzak's "Washington Square in Historic Society Hill Philadelphia; A Site Plan Chronology, 1683-1984," completed in May 1987. They present a graphic depiction of Rabzak's interpretation of the physical evolution of Washington Square from 1683 to 1984 and therefore are very useful in understanding the evolution of the major features, particularly built features, throughout the square's history.



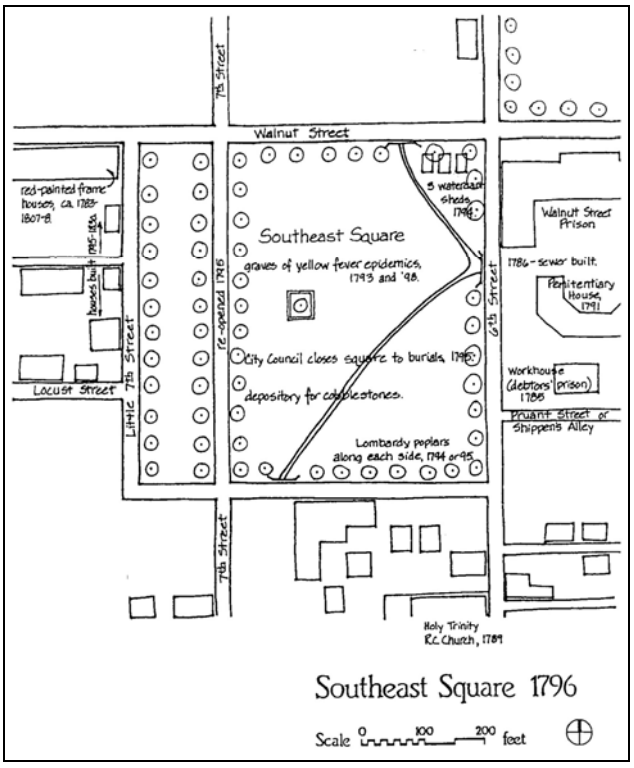
1683



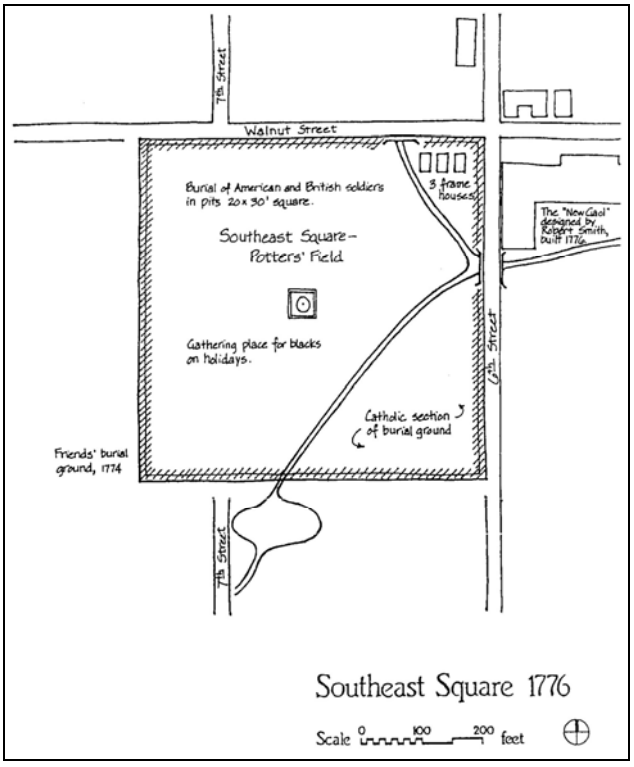
Early 1700s



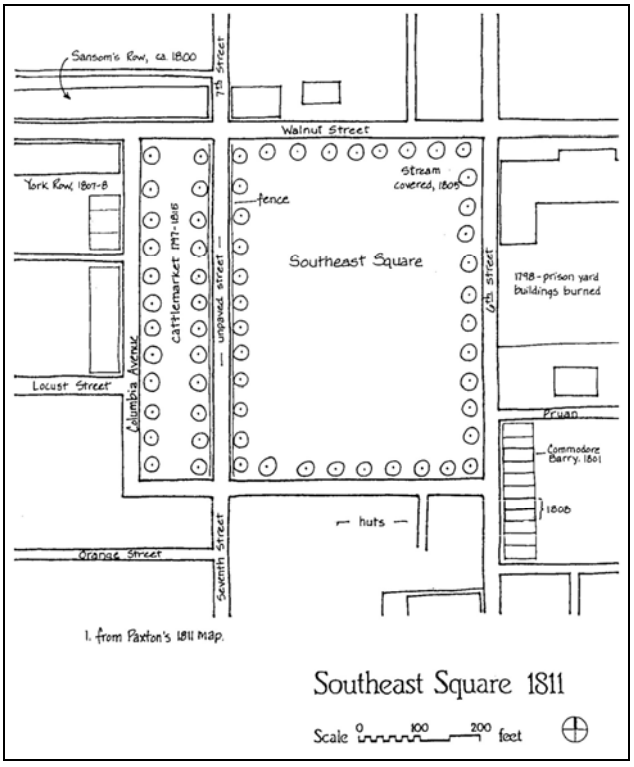
Mid 1700s



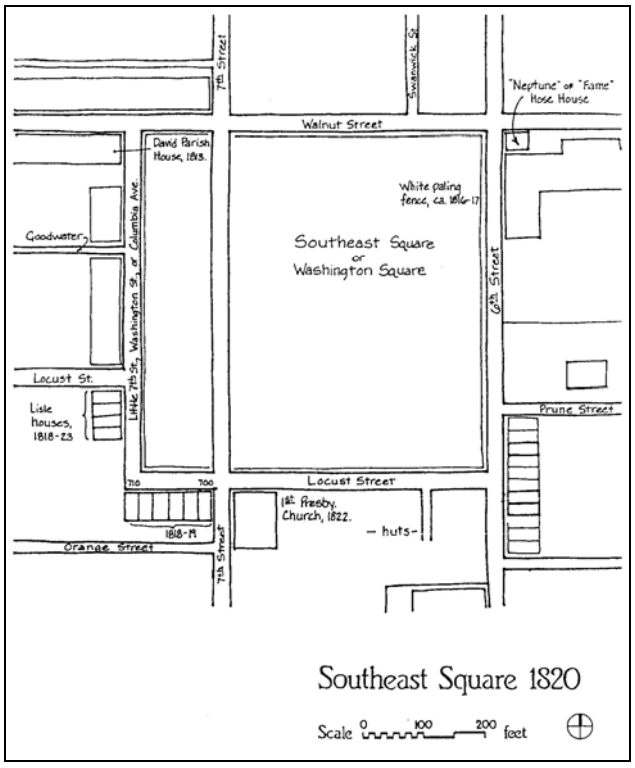
1796



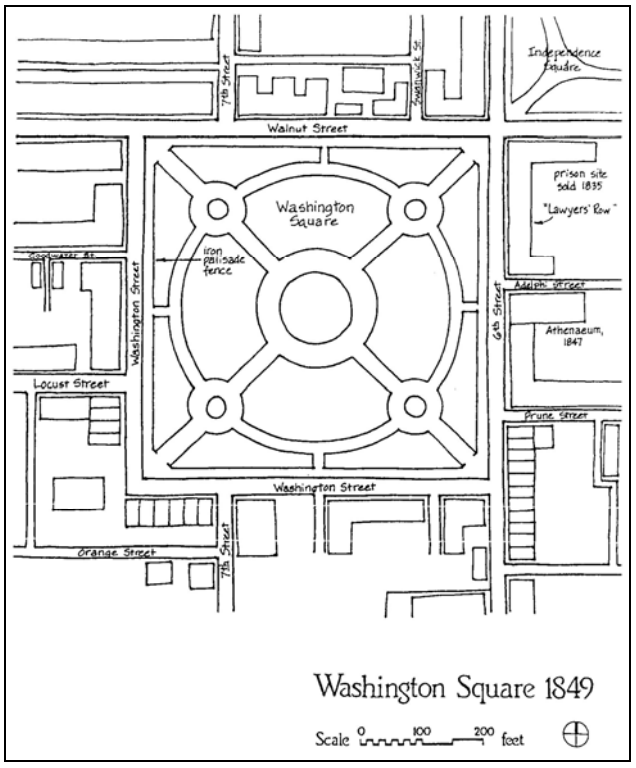
1776



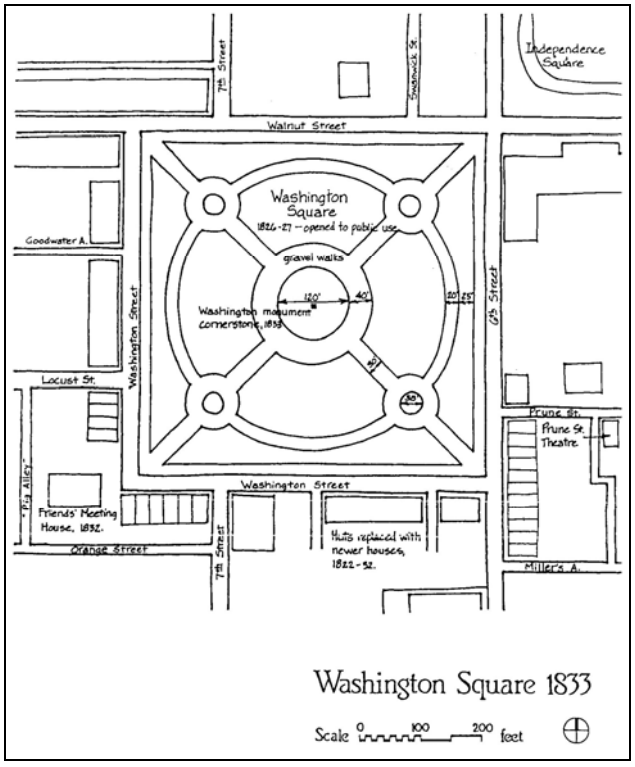
1811



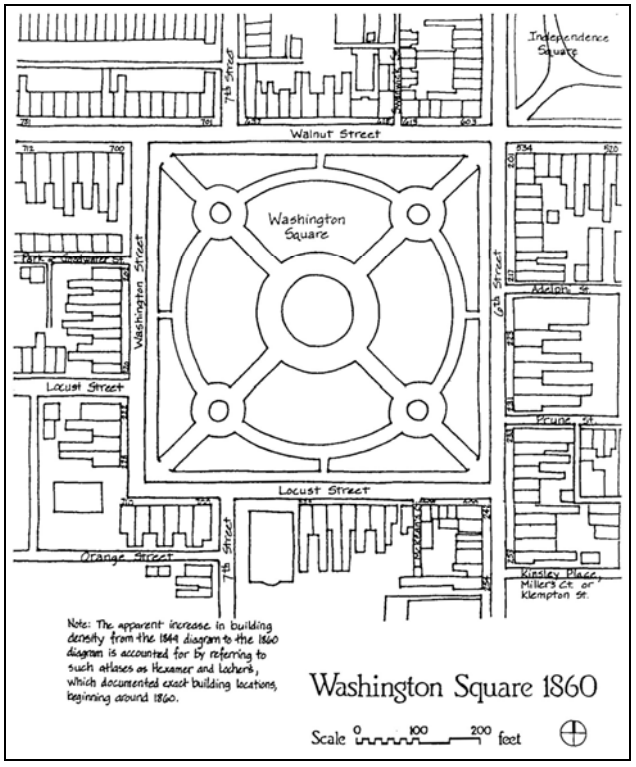
1820



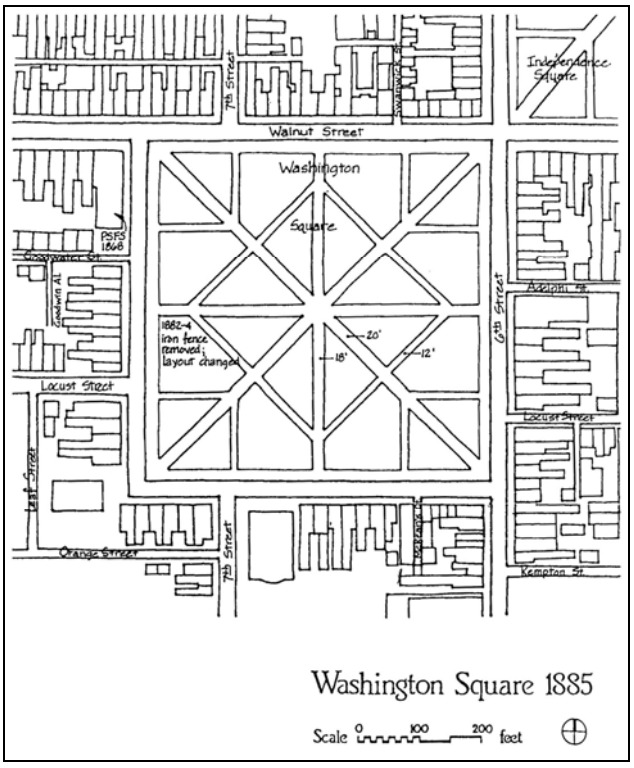
1849



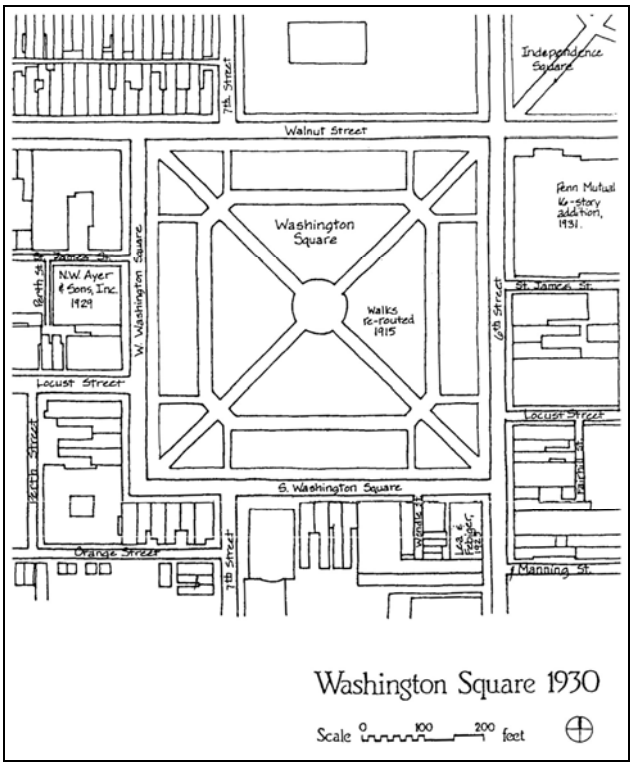
1833



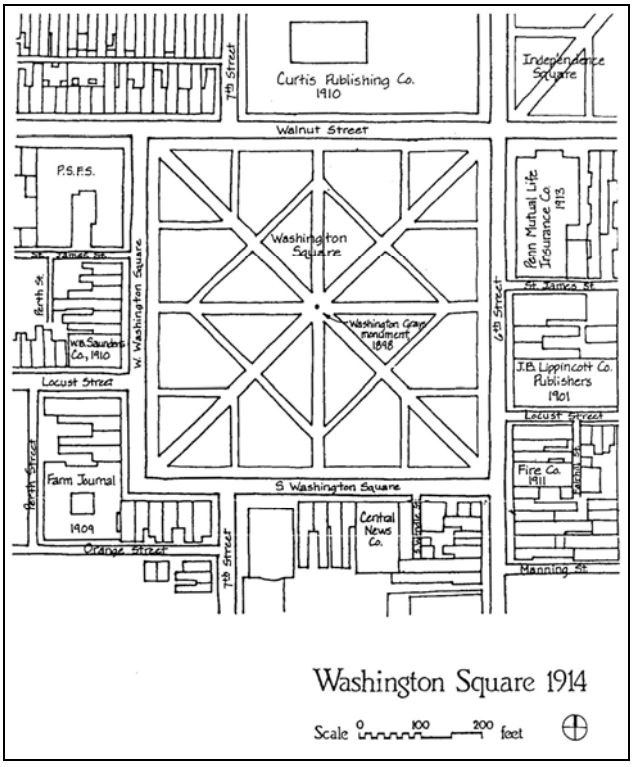
1860



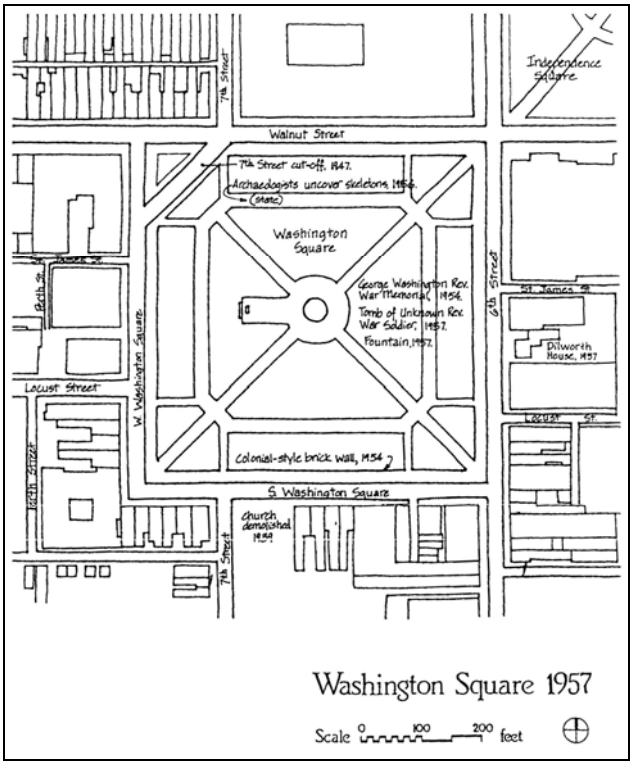
1885



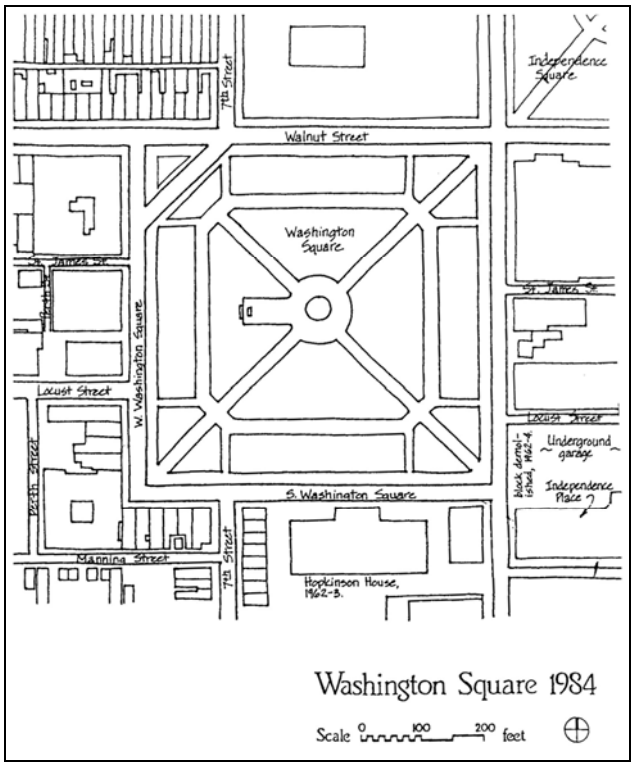
1930



1914



1957



1984

Contributing Resources and Character-Defining Features

This section presents a list of existing features found in Washington Square, which contribute to the character and significance of the landscape. The intent of this summary is to present a description of extant historic features, including those that have been modified or replaced, with a brief synopsis of significant dates and historical associations, and a conclusion about whether or not the features contribute to the significance of Washington Square, based on a period of significance 1682-1957. For a more detailed description of all existing landscape resources in the square, including their current condition, please see Chapter 3: Landscape Features.

The Memorial to the Unknown Revolutionary War Soldier, designed by Brumbaugh in 1957, can be considered a component landscape, composed of several individual features including the memorial (wall, sculpture, sarcophagus, and eternal flame), the flags and flag court, circular plaza, and fountain. In Table 2.1, the individual features are discussed separately below.

Table 2.1: Summary of Contributing and Non-contributing Resources

CATEGORY/Feature	Brief Description	Historic Association
SPATIAL ORGANIZATION		
Boundaries	Washington Square is bounded by the granite curb line of Walnut Street to the north, Sixth Street to the east, South Washington Square to the south, and West Washington Square to the west.	The boundary of Washington remains largely the same since 1683, except for street widening and the addition of the Seventh Street cut-off in 1947; it is associated with the 1683 Thomas Holme plan of Philadelphia, and all subsequent historic periods. **CONTRIBUTING.**
Topography	The topography of Washington Square is generally flat with all entrances at grade. Topography is raised approximately 4" at the center of the square. The average slope on pedestrian walkways in the square is 1 to 2%.	The site was filled in the early nineteenth century to cover a deep gully, where two streams converged on the square. Topography is associated with improvements by the City Commissioners to accommodate use of the square as a promenade, beginning around 1816, as well as all subsequent historic periods. **CONTRIBUTING.**
Views & axial relationships	The fountain and central plaza is the focal point of the 4 diagonal walks. The square was radially symmetrical until the installation of the Brumbaugh Plan, which changed the layout of the square into a bilaterally symmetrical design. The exception to this concept is the Seventh Street traffic cut-off. As a result of the Brumbaugh Plan, the Memorial to the Unknown Revolutionary War Solider presents a strong east/west axial relationship to the central plaza.	Diagonal walks date to the c. 1816 George Bridport design of the square and have been maintained through all major redesigns of the square. The central plaza has existed in some form since at least 1830. The circular fountain is associated with Brumbaugh design for the square, completed in 1957. **CONTRIBUTING.**
CIRCULATION		
Vehicular Circulation/Streets	**Walnut Street** (north side); **Sixth Street** (east side); **Locust Street** (south side); and **West Washington Square** (west side) all border Washington Square. The **Seventh Street cut-off** connects West Washington Square and Seventh Street at the northwest corner of Washington Square.	The general concept of the street grid for Philadelphia was established in the 1683 Penn/Holme Plan, and has been retained in subsequent historic periods. **CONTRIBUTING.** The traffic cut-off was constructed 1947, which is within the period of significance. **CONTRIBUTING.**

CATEGORY/Feature	Brief Description	Historic Association
Interior Pedestrian Circulation/Walkways	**Interior walkways** are New York State bluestone, 20′ wide from the corners of the square to central bluestone plaza, 15′ wide along the perimeter circuit, and 12′ wide at entrances perpendicular to adjacent streets, except for the northern entrance at the northwest corner of the square, which is 20′ wide. Bluestone extends across the sidewalk to the curb edge at the corner entrances.	The layout of the paved stone walks is associated with the Olmsted Brothers improvements to the square c. 1913-16. Flagstone paving material was introduced into Washington Square by Dixey as early as 1881, and continued in subsequent alterations; the existing bluestone paving material on the walkways is considered an appropriate in-kind replacement, constructed by the City in 1998. **CONTRIBUTING.**
	The **central plaza** is a 15′ diameter, circular bluestone plaza that intercepts diagonal bluestone walkways and connects to the approach to the Memorial to the Unknown Revolutionary War Soldier.	The central plaza has existed in some form since at least 1830. The existing configuration paved in bluestone is associated with the 1957 Brumbaugh design. The bluestone paving material replaced the deteriorated flagstone when the square was renovated in 1998 prior to the transfer to NPS. **CONTRIBUTING.**
Perimeter Pedestrian Circulation/Sidewalks	The **perimeter sidewalks** surrounding Washington Square are primarily constructed of red brick in a running bound pattern set on sand with bluestone flares at each corner entrance. A brick soldier course defines the edge of the sidewalk against the brick wall along tree pits. Sidewalks are 19′ wide along the east, south, and west sides of the square; 21′-6″ wide along the north side of the square; and 11′-6″ wide along the Seventh Street cut-off.	Sidewalks are first shown around the square in Bridport's c. 1816 design. Brick is first documented by a c. 1870 photograph, but most photographs indicate bluestone (flagstone) paving surrounding Washington Square. The present brick sidewalk replaced deteriorated bluestone sidewalks when the square was renovated prior to the transfer to NPS and dates to the late 1990s. Bluestone remains at the four corners of the square where the sidewalk meets the interior walkways. Future replacement of the sidewalk should consider the appropriateness of bluestone for the entire perimeter sidewalk. **CONTRIBUTING.**

CATEGORY/Feature	Brief Description	Historic Association
	A **concrete sidewalk** borders the traffic island at the northwest corner of Washington Square. The sidewalks are 17′ wide along the north side of the island, 20′ wide along the west, and 4′ wide along the southeast. The sidewalk is bordered on both sides by concrete curb, raised to define a lawn area at the center of the island and lowered to define the street edge along the perimeter of the island.	The concrete sidewalk surrounding the traffic island is associated with the addition of the island in 1947. **CONTRIBUTING.**
VEGETATION		
Street Trees	57 *Gingko biloba* (Gingko) were planted in 6′-6″ by 7′ openings in the sidewalk surrounding the square and on the traffic island.	These street trees first appear in plans in 1921, and are confirmed in photographs dating between 1928 and 1932. **CONTRIBUTING.**
Specimen Shade Trees	The square supports a large collection of predominantly deciduous shade trees, including Horsechestnut, Maple, Hackberry, Catalpa, Yellowwood, Ash, Gingko, Honeylocust, Kentucky Coffeetree, Holly, Walnut, Sweetgum, Tuliptree, Black Tupelo, Corktree, Planetree, Oak, Black Locust, Japanese Pagodatree, Ash, Baldcypress, and Elm.	Plantings of mixed trees in a simple grass ground plane inside the square began as early as 1816, and have been an integral part of all subsequent historic periods. **CONTRIBUTING.**
Ornamental Flowering Trees	Flowering trees includes scattered plantings of Serviceberry, Redbud, Dogwood, Hawthorn, Franklinia, Magnolia, and Cherry.	The majority of the trees used historically were specimen “shade” trees, rather than smaller ornamental species, though some small flowering trees were used early in the square’s history. **CONTRIBUTING** and **NON-CONTRIBUTING.**

CATEGORY/Feature	Brief Description	Historic Association
Shrubs	Existing shrubs are planted in mulch beds flanking each entrance to the square. Shrub hedges around the central plaza and the Memorial to the Unknown Revolutionary War Soldier.	Shrubs along the perimeter are first documented in the Olmsted Brothers' 1913 design. Hedge planting at the central plaza and along the memorial were designed by Thomas Sears and date to the 1950s. **CONTRIBUTING.** Much of the current shrub planting flanking entrances was added by the City of Philadelphia (through the Delta Group's planting plan) and cooperatively by NPS and the Society Hill Civic Association in the past decade. **NON-CONTRIBUTING.**
Herbaceous Plant Material	Herbaceous plants are located in mulched beds flanking each entrance, as well as around the central plaza and the Memorial to the Unknown Revolutionary War Soldier.	The addition of herbaceous plant material is first referenced by the Washington Square Planning Committee in 1954. Much of the current herbaceous plant material was added cooperatively by NPS and the Society Hill Civic Association in the past decade. Further research is needed to determine if any of the existing herbaceous planting is contributing. **NON-CONTRIBUTING.**
Grass Turf	Grass lawn covers the majority of the unpaved surface of the square and is open for public use. In some areas, turf suffers from overuse and extreme shade by the tree canopy above.	Grass is first documented in 1706, when the square was leased for pasture; lawn has remained prominent in the square since and relates to all periods of significance. **CONTRIBUTING.**
STRUCTURES		
Perimeter wall	The perimeter wall is 4' high Colonial Revival brick wall on 9" granite footer above the adjacent perimeter sidewalk. The wall is set in a Flemish bond, incorporating a running band of molded brick, with a molded brick cap. Brick piers surmounted by ornamental stone finials mark each of the 11 entrances to the square.	The granite footer dates to the early 1880s and is associated with improvements to the square by Commissioner of City Property William Dixey. The existing brick wall dates to 1956 and is associated with the G. Edwin Brumbaugh design and historic preservation context for its Colonial Revival character. **CONTRIBUTING.**

CATEGORY/Feature	Brief Description	Historic Association
Guardhouse buildings	The wooden guardhouse near the southeast corner of the square is a Tudor revival style and features a white beadboard exterior with dark green trim and a wood-shingled gable roof. The wooden guardhouse closer to the northwestern corner of the square features a light green beadboard exterior with dark green trim and a pyramidal hip roof clad in copper shingles.	The southeastern guardhouse dates to the 1890s and the northwestern guardhouse dates to the 1930s. Both guardhouses are significant for their association with the Fairmount Park Guard (1870-1972). **CONTRIBUTING.**
FURNINSHINGS AND OBJECTS		
Statues and memorials	The **Memorial to the Unknown Revolutionary War Soldier** consists of a sarcophagus flanked by 2 stone benches on a pediment with an inscribed memorial wall and a bronze replica casting of a statue of George Washington originally by Jean Antonie Houdon (1785). An eternal flame burns in front of the sarcophagus, with an approach from the central plaza flanked by 14 flags, discussed below.	The memorial was designed by Brumbaugh and completed in 1957. **CONTRIBUTING.**
Commemorative plaques	Numerous plaques and markers commemorate events and features of the square, and date from 1900 to 2002.	Early plaques, such as the **D.A.R. Revolutionary War plaque** (1900), **Society of Little Gardens plaque** (1937), and **Unknown Revolutionary War Soldier plaque** (1957), commemorate important associations, events, and additions and are **CONTRIBUTING**. Later plaques, such as **Carolyn Randall plaque** (1980) or the **USS JFK plaque** (1995), commemorate people and events that are locally significant or related to national military events are therefore less significant to Washington Square and are considered **NON-CONTRIBUTING.**
Fountains and water features	The **central fountain** consists of a concrete basin 33′ in diameter with a 2′ wide limestone coping. An ornamental lily pad nozzle at the center directs a water jet.	The central fountain is associated with the Memorial to the Unknown Revolutionary War Soldier, designed by Brumbaugh and dates to 1957. **CONTRIBUTING.**

CATEGORY/Feature	Brief Description	Historic Association
	A **watering trough** on the sidewalk mid-block along South Washington Square features an upper basin for watering horses and a lower, curb-height basin for dogs.	The watering trough is associated with the Philadelphia Fountain Society and dates to 1869. It was relocated to the southern side of the square in 1916 from its original location along Walnut Street. **CONTRIBUTING.**
Flagpoles	14 metal flagpoles flank the approach to the Memorial to the Unknown Revolutionary War Solider and fly the battle flags of the 13 original colonies and the first official American flag. Each flagpole bears a plaque indicating the state it represents. An aluminum flagpole on the central plaza opposite the memorial flies the flag of the United States.	The flagpoles are associated with the design of the Memorial to the Unknown Revolutionary War Solider, designed by Brumbaugh and completed in 1957. **CONTRIBUTING.**
Lighting	53 **Colonial Revival-style lights** with square stanchions and lantern-type luminaries, both painted black line the bluestone walks in Washington Square. These pole lights have high pressure sodium vapor bulbs, are staggered along both sides of the bluestone walkways throughout the square.	Walkway lights within the square are associated with a design by Brumbaugh, which adapted an original Benjamin Franklin gas lamp design to electricity. The existing lights were installed in the late 1990s in association with renovations to the square prior to the transfer to NPS and appear slightly larger than the Brumbaugh design. These existing features are not historic, but they represent an in-kind replacement of the earlier feature, even though the design has been altered. Future replacement should be a design based on the original Franklin fixture. **CONTRIBUTING but altered.**
	2 **spotlights** mounted to walkway lights at the central plaza light the American flag and 2 spotlights on metal posts light the Memorial to the Unknown Revolutionary War Solider.	Spotlights directed toward the American flag and the memorial appear to date to the Brumbaugh improvements in the 1950s. **CONTRIBUTING.**
	37 **streetlights** on the sidewalk, including the traffic island, are comprised of acorn-style luminaries with full cut-off fixtures are set on flair top of posts with simple bases.	Streetlights were installed by the Center City District in 2005 and are not historic. **NON-CONTRIBUTING.**

CATEGORY/Feature	Brief Description	Historic Association
Seating	97 teak benches, 6′ wide, located in 2′-6″ niches line the bluestone walkways and along the perimeter of the central plaza. Benches are mounted independently, paired, or grouped with a trash receptacle.	In 1828 benches were first ordered for the square and have remained since then, although the location and style of benches has changed several times. The present teak benches date to the late 1990s and are associated with renovations to the square prior to the transfer to NPS. While benches have been a component of the square since the early nineteenth century, these existing features are not historic and are therefore **CONTRIBUTING but existing features are not historic.**
Trash receptacles	31 painted (black) steel receptacles are marked for either trash or recyclables and are paired with benches throughout the square.	Trash receptacles are evident on Washington Square during the period of significance, but the existing furnishings date to the late 1990s and are associated with renovations to the square prior to the transfer to NPS. **NON-CONTRIBUTING.**
Bollards	6 cast metal bollards in the sidewalk along West Washington Square opposite the end of Locust Street.	The bollards were installed by the Center City District in 2005 and are not historically significant. **NON-CONTRIBUTING.**
Interpretive and directional signs	7 waysides/interpretive panels located along the walkway from the northeast corner to the central plaza; each consists of an inscribed stone with text and image mounted to a metal pole/base.	7 interpretive panels were installed in October 2002 and are associated with transition from the City to NPS. **NON-CONTRIBUTING.**
Miscellaneous traffic-related furnishings	Traffic signals and street signs mounted in the sidewalk along all streets; 2 steel tube bike racks on the traffic island; along Walnut Street, parking meters have been replaced with pay kiosks.	These features were installed periodically by the City and are not historic. **NON-CONTRIBUTING.**
SITE SYSTEMS		
Grading and drainage	26 catch basins set along the edges of the bluestone walkways within the perimeter wall, with 18″ x 24″ grates.	While drainage features likely existing in earlier periods, the existing drainage features date to the City's rehabilitation in the 1990s. **NON-CONTRIBUTING.**

CATEGORY/Feature	Brief Description	Historic Association
Irrigation	Washington Square is separated into irrigation zones that cover both lawn and planting beds. Irrigation heads in the planting beds are elevated to ensure coverage, while those in the lawn retract below grade when not in use.	Irrigation in the square is first referenced in by William Dreer in 1915, although it is not clear if it was installed at that time. These features are integral to the maintenance of the square, but are not a historic feature. **NON-CONTRIBUTING.**
ARCHEOLOGICAL RESOURCES		
Archeological features	Physical evidence related to the Potter's Field and burial ground for Revolutionary War soldiers has been confirmed and is associated with the early Colonial history of Washington Square. It is also likely that the square contains other below-ground archeological evidence of the features that have existed through numerous eighteenth, nineteenth, and twentieth century renovations. Less well known is the degree to which the square holds pre-colonial period evidence of Native American use.	Regardless, the archeological resources of Washington Square are integral to understanding its rich and varied history. All burials and archaeological remains (previous structures, features) are significant. **CONTRIBUTING.**

Statement of Significance

Summary

Washington Square, currently listed on the National Register of Historic Places as one of the Four Public Squares of Philadelphia Thematic Resource nomination. The square has been continuously maintained for public use since it's inception 1682 as part of William Penn's ideal city, and for this reason, is a rare surviving example of one of the first urban squares in the country that has continuously evolved over three centuries, but which still conveys the features, materials, and spaces associated with many historic periods. As one of Penn's original squares, illustrated in the 1683 plan by Thomas Holme, Washington Square appears to be the most intact remnant of Penn's social ideals. The basic tenet of the original plan – a landscaped square bounded by four city streets, is still intact. The period of significance recommended in this CLR is 1682-1957, which continues through the construction of G. Edwin Brumbaugh's Memorial to the Unknown Revolutionary War Soldier.

The square is also significant for its colonial history as a burial ground for Revolutionary War soldiers who were prisoners of war held by British forces, as well as African slaves and freemen living in Philadelphia. Many individuals, who were treated during the Revolution in the hospital at Independence Hall, were buried in Washington Square, so the historical connection to Independence Square began very early in the history of both landscapes. Burials in Washington Square are also documented for the 1793 yellow fever outbreak. While much is still unknown about the exact extent and concentration of burials in Washington Square, there is enough documentary and physical evidence

to know that the entire square is a significant archeological resource, including the known presence of human remains.

Over its 320-year history, Washington Square has evolved from a potter's field to a significant urban landscape through a series of improvements by noteworthy designers and urban planners such as George Bridport, William Dixey, Olmsted Brothers, and Edwin Brumbaugh and Thomas Sears. Each of the subsequent improvements to the square maintained a symmetrical, formal plan, with central circle and diagonal connections to each of the four corners. Of the designers associated with Washington Square, the Olmsted Brothers are perhaps the most well-known and significant, and much of their plan for the square was carried into the later improvements by Brumbaugh and Sears. During the Washington Centennial celebrations of 1832 and in the Brumbaugh improvements of 1957, the square has played an important role in the national commemoration of General George Washington, now evident in the Memorial to the Unknown Soldier of the American Revolution. The horticultural history of Washington Square also reflects Philadelphia's early contributions to the identification, cultivation, and ornamental use of trees.

Washington Square's historical associations make it significant in the areas of archeology, community planning, conservation, landscape architecture, sculpture, and social history. Washington Square clearly significant at state level, and may have national significance, particularly as a rare surviving example of Penn's ideal city plan and for its associations with the colonial history of Philadelphia.[74] Washington Square is significant under National Register Criteria A, C, and D, likely at the state level.

NR Criterion A: Event

Under Criterion A, the square is significant at the state level for its association with the founding of Philadelphia (1682) and the nation during the American Revolution, including the role the square has played in the African American history of Philadelphia. Also significant, is the role Washington Square has played in the national commemoration of George Washington and the Revolutionary War, resulting in Brumbaugh's design for the Memorial to the Unknown Revolutionary War Soldier. Early efforts at commemoration began with re-naming of Southeast Square as Washington Square, which was first proposed in 1816 and officially adopted in 1825. With the Centennial of Washington's birthday, a cornerstone for a future monument was laid in Washington Square in 1833, but public subscriptions were not sufficient to support the construction of a Washington monument at that time. Between 1894 and 1954, a monument to the Washington Grays militia unit stood in two different locations in the square, but it was moved to Fairmount Park. By 1952, the Washington Square Planning Committee and others coordinated fundraising to support the new Memorial to the Unknown Revolutionary War Soldier, which was designed by G. Edwin Brumbaugh featuring a sarcophagus and replica statue of George Washington.

NR Criterion C: Design

Under Criterion C, Washington Square is noteworthy as an extant early example of one of the first urban squares in the U.S., as an integral component of William Penn's plan for Philadelphia drawn by Thomas Holme in 1683. John Reps noted in his 1969 history of urban planning noted, "in setting aside the four smaller squares…they [Penn and Holme] established America's first designated public parks."[75] Penn was interested in parks and gardens in part because he realized some of the dangers inherent in the seventeenth century city related to health and disease, as well as the potential danger of fire after London burned in 1660.[76] Penn's vision represents a very early attempt to preserve open space for city residents, a concept that was

carried further by reformers of the nineteenth century in cities such as New York, Buffalo, and St. Louis.[77] From very early on, Washington Square represents the ongoing planning efforts of Philadelphia's founding city government, as well as reflecting the evolving attitudes and priorities of the neighboring residents and businesses toward their public landscape, even though the square's character and treatment as a park did not really take hold until the early nineteenth century.

In addition, the design evolution represented by Bridport, Dixey and Olmsted Brothers plans are also noteworthy. Bridport is the first to draw a radially symmetrical design with diagonal promenades connecting to each street corner, which was modified by William Dixey, who also played an important role in the redesign of Independence Square. However, it is the Olmsted Brothers plan that is the most significant and most intact of the three. While the Olmsted firm is nationally significant as the first professional office of landscape architecture in the nation, their design for Washington Square is likely significant at a state level.

NR Criterion D: Archeology

Washington Square's archeological resources also make it significant under Criterion D. Since Laura Feller's 1984 evaluation, the City has conducted two archeological studies that revealed presence of buried human remains as well as physical evidence of human activity and earlier landscape features. While the integrity of the resource is not entirely known, the combination of physical and documentary evidence, as evaluated by the Milner studies of 1996 and 2000 do imply that the square has archeological significance. However, it should be noted that there are several sites in the nation, such as Valley Forge National Historical Park and elsewhere where burials of unknown Revolutionary War Soldiers are marked and memorialized.

Criteria Consideration: Commemoration

Criterion Consideration F: commemoration, is also relevant to Washington Square, given the visual importance of the Memorial to the Unknown Revolutionary War Soldier, the replica statue of George Washington, and the large number of plaques and smaller commemorative objects in the square. In this case, it is possible that the Brumbaugh Memorial has some significance in its own right, for its artistic qualities reflected in the ensemble of features including the monument, sarcophagus, flag court and fountain, and given Brumbaugh's contributions to architectural preservation in Pennsylvania during the early-mid twentieth century. It is not likely that sufficient time has elapsed since the construction of the Memorial to determine if this component landscape has acquired additional significance through age, tradition or symbolic value.

In addition to its multiple historical associations, Washington Square is a much-loved urban landscape that has been enjoyed by its abutters, even as the surrounded land uses have changed from largely commercial institutions to residential uses. It is an integral part of the city's urban fabric and a tremendous asset to Independence National Historical Park.

Recommendations

Further work may be needed to determine whether or not any of the areas of significance cited above warrant revisions to existing National Register nominations, including the existing nomination for the Four Public Squares of Philadelphia, and the district nomination and amendment for Independence National Historical Park, which does not include Washington Square. This may reveal more precise analysis of the period of significance, resulting is a grouping of separate periods that correspond to specific historic contexts. Areas that warrant future study include African American history of colonial Philadelphia, and increasing the

body of knowledge regarding the extent, integrity, and significance of Washington Square's archeological resources. Washington Square should be considered a significant archeological resource with monitoring activities in place any time ground disturbance below 6" is undertaken.

Endnotes

[1] J. Timothy Keller and Genevieve P. Keller; U.S. Department of the Interior, National Park Service, *National Register Bulletin 18: How to Evaluate and Nominate Designed Historic Landscapes*, p.2.

[2] U.S. Department of the Interior, National Park Service, *National Register Bulletin 16A: How to Complete the National Register Registration Form*, 1997, p. 3.

[3] Trina Vaux. "National Register of Historic Places Inventory-Nomination Form, The Four Public Squares of Philadelphia Thematic Resource," 1981, Item 8.

[4] Ibid., Item 8, p. 1.

[5] Ibid., Item 8, p. 2, citing J. Thomas Scharf and Thompson Westcott. *History of Philadelphia, 1609-1884*, Vol. III. Philadelphia, PA: L.H. Everts & Co., 1884, pp. 1845-46.

[6] Dennis Reidenbach memorandum regarding Washington Square meeting with the American Revolution Patriots Fund, 12 February, 1998.

[7] Mary C. Means, "Society Hill Inventory-Nomination Form." National Register of Historic Places, 1971, section 8.

[8] Preservation Alliance for Greater Philadelphia. *Society Hill (and Pennsylvania Hospital of Washington Square West) Historic District: A Guide for Property Owners*, p. 4.

[9] National Park Service, "Themes & Concepts" [booklet], 1994, Preamble.

[10] William Penn, 10 October 1861, as quoted in J. Thomas Scharf and Thompson Westcott. *History of Philadelphia, 1609-1884*, Vol. I. Philadelphia, PA: L.H. Everts & Co., 1884, p. 88.

[11] *A Short Advertisement upon the Situation and Extent of the City of Philadelphia and the Ensuing Plat-form thereof, by the Surveyor-General*, London, 1683, as quoted in John W. Reps. *Town Planning in Frontier America*. Princeton, NY: Princeton University Press, 1969, pp. 211-212.

[12] Reps. *Town Planning*, p.215.

[13] Reps. *Town Planning*, p. 213.

[14] *Lions of Philadelphia* [pamphlet], 1839, p. 35, as quoted in Nancy Heinzen. *The Perfect Square, A History of Rittenhouse Square*, Philadelphia, PA: Temple University Press, 2009, p. 24.

[15] *A Short Advertisement*, as quoted in Reps. *Town Planning*, pp. 211-212.

[16] Scharf and Westcott. *History of Philadelphia*, Vol. III, p. 1842.

[17] Ibid., pp. 1842-1843.

[18] Alice B. Lockwood. *Gardens of Colony and State*, Vol. I, New York, NY: Charles Scribner's Sons for the Garden Club of America, 1931-34, pp. 334-35.

[19] Carolyn Pitts. "National Register of Historic Places Inventory – Nomination Form for Philadelphia City Hall." Section 7 and 8. August 11, 1976.

[20] Scharf and Westcott. *History of Philadelphia,* Vol. III. p. 1847.

[21] Lockwood. *Gardens of Colony and State*, p. 336.

[22] Heinzen. *The Perfect Square*, p. 25.

[23] Scharf and Westcott. *History of Philadelphia,* Vol. III., p. 1850.

[24] Ibid., p. 1849.

[25] Reps. *Town Planning*, p. 174.

[26] Jeffrey A. Cohen. "George Bridport (bef.1794-1819), Early American Architectural Drawing in Philadelphia" in James F. O'Gorman et al. *Drawing Toward Building, Philadelphia Architectural Graphics, 1732-1985.* Philadelphia, PA: University of Pennsylvania Press, 1986, p. 65.

[27] Likely source is Joseph Jackson, *Early Philadelphia Architects and Engineers* (Philadelphia, 1923) p. 148,

which is listed as a source in Cohen's article, "George Bridport (bef.1794-1819)" p. 65.

[28] Cohen. "George Bridport," p. 65. and Roger W. Moss, "Haviland, John (1792-1852)" Biography from the *American Architects and Buildings* database, Philadelphia Architects and Buildings www.philadelphiabuildings.org accessed 4/19/2010.

[29] Cohen. "George Bridport" p. 66.

[30] Scharf and Westcott. *History of Philadelphia*, Vol. III, p. 1845, as cited in Laura Feller, "Report on Washington Square, Philadelphia, Pennsylvania: Its Eligibility for Designation as a National Historic Landmark." National Park Service, History Division, 1984, p. 3.

[31] In 1874, the name of the department changes in The Public Ledger Almanac from the Department of City Property to the Department of Markets and City Property, reflecting the merger with the markets division in 1867. Administration of the public squares was added to the duties of that department in 1869.

[32] *Weekly Notes of Cases Argued and Determined in the Supreme Court of Pennsylvania, the County Courts of Philadelphia, and the United States District and Circuit Courts for the Western District of Pennsylvania by Members of the Bar*, Volume X, April 1881 to December 1881. Philadelphia, PA: Kay & Brother, p. 559.

[33] *Weekly Notes of Cases Argued and Determined in the Supreme Court of Pennsylvania*, pp.558-561.

[34] *The Public Ledger Almanac*, annually 1875-1880. Philadelphia, PA: George W. Childs.

[35] *The Philadelphia Times Almanac*, annually 1887-1891. Philadelphia, PA: The Times.

[36] Robin Karson. "Percival Gallagher, 1874-1934, Landscape Architect" in *Pioneers of American Landscape Design,* edited by Charles A. Birnbaum and Robin Karson. New York: McGraw-Hill, 2000, pp. 131-132.

[37] Caroline Loughlin, Lucy Lawliss and Lauren Meier, editors. *The Master List of Design Projects of the Olmsted Firm, 1857-1979.* Washington, D.C.: The National Association for Olmsted Parks and the NPS, Frederick Law Olmsted National Historic Site, p. 76.

[38] Charles Beveridge. "Parks, Parkways, Recreation Areas and Scenic Reservations" in *The Master List of Design Projects of the Olmsted Firm, 1857-1979*, p. 38.

[39] David Brion Davis. *The Problem of Slavery in the Age of Revolution, 1770-1823*. Ithaca, NY: The Cornell University Press, 1975, p. 24.

[40] Anna Coxe Toogood, Historian, National Park Service, Independence National Historical Park. "Cultural Landscape Report, Independence Square, Volume One, Historical Narrative," 2004, p. 130.

[41] John F. Watson. *Watson's Annals of Philadelphia and Pennsylvania*, Vol. I, Philadelphia, PA: Elijah Thomas, 1857, p. 62.

[42] Ibid., p. 62.

[43] Ibid., pp. 405-7.

[44] Marion Martin Rivinus. "Philadelphia's Squares: A Paper Read before the Hostess Committee of the Franklin Institute," Philadelphia, Pennsylvania, 1958, p. 4.

[45] Charles A. Taylor. *Juneteenth: A Celebration of Freedom*. Greensboro, NC: Open Hands Publishing, 2002, p. 3.

[46] Scharf and Westcott. *History of Philadelphia*, Vol. III, p. 2355.

[47] J. Thomas Scharf and Thompson Westcott. *History of Philadelphia, 1609-1884*, Vol. II, Philadelphia, PA: L.H. Everts & Co., 1884, p. 1327.

[48] *The Pennsylvania Gazette,* 26 September 1765.

[49] Stephanie Farr. "Fundraiser for Fence of History at Delco's Eden Cemetery." *Philadelphia Daily News*, 16 October 2008. According to Dr. Charles Blockson in his book *Philadelphia 1639-2000*, the term "Congo Square" was used to refer to Washington Square during the Colonial period. It is possible that the term was not recorded in writing because it passed through the oral tradition of the African American community in Philadelphia.

[50] Gary B. Nash. *Forging Freedom: The Formation of Philadelphia's Black Community, 1720-1840*. Cambridge, MA: Harvard University Press, 1991, p. 109 and Toogood, Cultural Landscape Report, Independence Square, p. 129.

[51] William Shippen Jr. to Thomas Lee Shippen, 18 December 1787. Thomas L. Shippen Papers, Library of Congress.

[52] Ibid.

[53] In her master's thesis, Emily Lynn Wolf cites two dates for the start of Brumbaugh's private practice, 1916 and 1926.

[54] Emily Lynn Wolf. "Architecture Tells the Story: G. Edwin Brumbaugh and His Contributions to the Field of Restoration Architecture." Thesis, University of Pennsylvania, 2008, p. 3.

[55] Ibid., pp. 30-31.

[56] Scharf and Westcott. *History of Philadelphia*, Vol. II, pp. 1327, 1369. Burials disturbed are cited as Scharf and Westcott in Crist and Roberts. "An Archeological Investigation," p. 16.

[57] Scharf and Westcott. *History of Philadelphia,* Vol. III, p. 2355.

[58] Daniel G. Roberts and Tod L. Benedict, John Milner Associates, Inc. "Archeological Supervision and Monitoring of Restoration at Washington Square, Philadelphia, Pennsylvania." Fairmount Park Commission and Tony DePaul & Son, 2000, p. 11, citing John L. Cotter, Daniel G. Roberts, and Michael Parrington. *The Buried Past: An Archaeological History of Philadelphia*. Philadelphia, PA: University of Pennsylvania Press, 1993, pp. 205-210. And Arthur M. Kennedy, "Philadelphia's Washington Square: An Address Delivered by Arthur M. Kennedy before the Germantown Historical Society, February 17, 1942."

[59] Roberts and Benedict. "Archeological Supervision, Washington Square," citing Cotter et al. *The Buried Past*.

[60] Roberts and Benedict. "Archeological Supervision, Washington Square," p. 12, citing L.H. Butterfield et al., *Adams Family Correspondence*, Vol. 2. Cambridge, MA: The Belnap Press of Harvard University Press1963, v. 2: p. 209.

[61] Roberts and Benedict. "Archeological Supervision, Washington Square," p. 14, citing Absalom Jones and Richard Allen. *A Narrative of the Proceedings of the Black People, During the Late Awful Calamity in Philadelphia in the Year 1793 and a Refutation of Some Censures, Thrown upon Them in Some Late Publications*, 1794. Reprinted in 1993 by Independence National Historical Park and Eastern National Park and Monument Association, p. 32.

[62] Richard J. Campana. *Arboriculture: History and Development in America*. East Lansing, MI: Michigan State Press, 1999, p. 17.

[63] Ibid., p. 18.

[64] J.C. Loudon. *An Encyclopedia of Gardening*. London: Longman, Brown, Green and Longmans, 1850, pp. 335-339, as cited by Therese O'Malley, "From Practice to Theory: The Emerging Profession of Landscape Gardening in Early Nineteenth-Century America" in *Botanical Progress, Horticultural Innovations and Cultural Changes*, edited by Michel Conan and W. John Kress. Washington, D.C.: Dumbarton Oaks Research Library and Collection, 2007, p. 225.

[65] Campana. *Arboriculture*, p. 35.

[66] William Wynne. *Gardener's Magazine* 8 (1832): 272-273, pp. 272-273 as cited by O'Malley "From Practice to Theory," p. 225.

[67] Campana. *Arboriculture*, pp. 22-23.

[68] Ibid., pp. 36-37.

[69] Andrew Jackson Downing. *Rural Essays.* New York, New York: Putnams, 1853, p. 305.

[70] U.S. Department of the Interior, National Park Service, *National Register Bulletin 16A: How to Complete the National Register Registration Form*, 1997, p. 3.

[71] Samuel Hazard, ed. *Pennsylvania Archives. Selected and Arranged from Original Documents in the Office of the Secretary of the Commonwealth*, Vol. XII, Philadelphia, PA: Joseph Severns & Co., 1856, p. 471.

[72] Ibid.

[73] The use of the terms flagstone during this period likely meant the material Pennsylvania bluestone, though this has not been confirmed.

[74] Properties listed on the National Register are significant at the local, state, or national level. The National Register nomination for Four Public Squares of Philadelphia lists state level of significance. The true measure of national significance is evaluated in a National Historical Landmark nomination, which includes a comparative analysis and historic context.

[75] Reps. *Town Planning*, p. 213.

[76] Tuomi Forrest. "William Penn, Visionary Proprietor." University of Virginia, n.d.

[77] Laura Feller. "Report on Washington Square, Philadelphia, Pennsylvania: Its Eligibility for Designation as a National Historic Landmark." National Park Service, History Division, 1984, p. 7.

CHAPTER 3

LANDSCAPE FEATURES

Introduction

This chapter addresses the features of Washington Square that visually and spatially contribute to the character of the property and provides a discussion of the historically significant (contributing) features addressed in summary in the preceding chapter. In the over three hundred (300) years since it was first formally defined, Washington Square has undergone a number of significant changes, resulting in a complete transformation of the landscape from its natural condition to a landscaped urban square. Throughout this period, a number of components have been removed from the square, while others have been modified or transformed to their current form.



Figure 3.1: *2009 aerial photograph of Washington Square showing site boundaries and Independence Square to the northeast (upper left) (USGS).*

The discussion of landscape features that follows is based on historical information as well as field observations conducted in 2009-2010. For each feature, a detailed **description** is provided with a documentary photograph of the feature. **Background** information follows the description of each feature explaining how the feature came to exist and its evolution through time. A **condition assessment** evaluates the feature as it presently exists and highlights deficiencies that should be addressed in the Treatment Recommendations chapter of this report. Lastly, the **significance** of each feature is noted.

Spatial Organization

Feature – Boundaries

Description: Washington Square comprises one full city block, bounded by Walnut Street to the north, South Washington Square to the south, South Sixth Street to the east, and West Washington Square to the west. A traffic cut-off at the northwest corner of the square separates a small portion of the square from the larger section of the property. Despite the city street that separates this island from the square, this land still comprises a part of Washington Square and has historically been associated with the square.

Condition Assessment: The boundaries of Washington Square remain unchanged from their original layout in 1683, with the exception of the addition of the Seventh Street cut-off, constructed in 1947 at the northwest corner of the square, which resulted in the creation of a triangular traffic island. The streets that border Washington Square have also been formalized and widened as the city grew from 1683 to present without a dramatic impact on the boundaries of the square. Around the square, many

changes have occurred, most notably architectural changes associated with the development of the surrounding neighborhood and its transition from a district on the outskirts of the city in the seventeenth and early eighteenth centuries to the construction of private residences and later large office buildings in the early twentieth century. In the mid twenty-first century, several smaller buildings were demolished around the square to make way for high-rise apartment buildings, notably the Hopkinson House (1963) and Independence Place (1982).

Background: The earliest known plan of Philadelphia dates to 1683, "A Portraiture of the City of Phila. In the Province of Penna. By Thomas Holme, Surveyor General. Sold by Andrew Sowle in Shore ditch, London." On the plan, five squares are shown, including Southeast Square (now Washington Square). Trees on the plan denote the public space, which was intended "for the like Uses, as the Moore-fields in London,"[1] the Moorfields being a marsh that lay beyond the old wall to the north of London, which was gradually reclaimed by ditching and draining to become common land. During the Great Fire of London in 1666, the Moorfields provided a place of refuge for the citizens of London.

In 1795, Seventh Street was extended through the square, bisecting the open space and temporary altering the boundaries of the square.[2] This portion of Seventh Street was forever closed in 1822, despite later proposals to open the street.[3] On March 13, 1947, the Seventh Street traffic cut-off was approved at the northwest corner of Washington Square to ease traffic at the intersection of Seventh Street and Walnut Street.[4] The addition of this traffic cut-off had a significant impact on the boundaries at the northwest corner of the square, despite the modest footprint it occupies.

Significance: The boundaries of Washington Square contribute to the significance of the square because they identify and mark the extent of the property continuously from 1683 to present. The boundaries also establish/define the location of features within the square and define the relationship of the square to the surrounding city.



Figure 3.2: *Western view along South Washington Square of the brick perimeter wall and granite curb line (Pressley Associates, 2009).*

Feature – Topography

Description: The topography of Washington Square is generally flat or very gently sloped with all entrances to the square from surrounding streets occurring at grade with the adjacent brick sidewalk. Toward the center of the square, the topography is raised slightly. The plaza at the center of the square lies approximately four feet (4') above Sixth Street to the east. From the center of the square, the topography slopes down towards the perimeter wall, with the overall grade sloping very gently from the west to the east across the square. Along the pedestrian walks that lead to the center of the square, the average slope is one to two percent (1% to 2%).

Condition Assessment: The topography of the square remains largely unchanged from the time the square first opened to public use in the early 1800s. At present, the topography poses no impediment to universal public access. The addition of soil and mulch to planting beds near the entrances to the square has raised the grade slightly in these areas,

resulting in mulch and soil run-off onto adjacent walks during storms; however, the general topography of the square poses no major drainage concerns.



Figure 3.3: *Northwestern view showing the gradual slope away from the central plaza (Pressley Associates, 2009).*

Background: Historically, Washington Square sloped from the western side to a deep gully near the northeast corner of the square, where two streams converged, flowing from the north and south, respectively. As Scharf and Westcott noted in their 1884 *History of Philadelphia*, Southeast Square "was uneven, and near its southwest corner was entered by a stream which flowed in from beyond Arch Street. A second rivulet, having its source in a pond about where the First Presbyterian Church was afterward built [at the southeast corner of Seventh Street and what is now South Washington Square], met the other west of Sixth Street, and the brook took a course nearly eastward to Fifth Street, and half-way to Fourth Street, where it turned north, then east to about Hudson Street, where it emptied into the northwestern branch of Dock Creek."[5] John Lukens was the earliest to document the topography near the square with measurements in his 1766 survey book. He noted that the grade change along Sixth Street, "from ye South Side of Walnut street to the bottom of the Hallow [*sic*] between Walnut & Spruce Street (Distance 140 feet) Desent [*sic*] 5 feet 2 Inches."[6]

In April 1803, the City Commissioners passed a resolution that allowed citizens to deposit earth in the square suitable to fill it; however, this decision was quickly reversed.[7] In November 1805, the Councils directed "that in order to complete the improvements of the square the city commissioner should erect sidewalls to it [the stream], and cover the little stream crossing it [the square] diagonally from Walnut to Sixth Street to the distance of thirty-five feet from Walnut Street, and lay the bottom with condemned logs, or cover or arch the same, so that the flow of water be not impeded."[8] Thus, shortly following the turn of the century, Washington Square was leveled, its watercourses being directed into a culvert.

Significance: The significance of the existing topography of Washington Square relates to improvements in the early nineteenth century to level the ground plane so it could be used as a public promenade.

Feature – Perimeter Wall

Description: An approximate four foot (4') high Colonial Revival style brick wall surrounds Washington Square in its entirety. The wall is set in a Flemish bound with a molded brick cap. The brick wall rests on a granite base, which is likely the same nine inch (9") coping installed around the square in the 1880s. At its base, the wall steps out slightly towards the sidewalk, incorporating a running band of molded brick. The eleven (11) breaks in the wall are as follows: three (3) at three corners of the square (NE, SE, SW) with one (1) directly on the corner and one (1) perpendicular to each of the adjacent streets and two (2) at the northwest corner. The northwest corner of the square is distinct in that it only has two (2) side entrances; the primary corner entrance was removed after the construction of the traffic cut-off (1947).

At each entrance to the square, the brick wall extends beyond the entry piers, curving into the square. At the major, corner entrances, the ends of the walls are marked with tall brick piers with finials that feature spheres bisected by square planes. At the minor entrances, perpendicular to the adjacent streets, the ends of the walls are marked with lower, wall-height brick piers with stone caps without decorative finials.



Figure 3.4: *A minor entrance to Washington Square showing the perimeter brick wall with an unadorned end pier (Pressley Associates, 2009).*

Condition Assessment: The perimeter wall remains intact and is in excellent condition. Portions of the wall were repointed, other portions replaced, and expansion joints added in the late 1990s prior to the transfer of Washington Square to the National Park Service.[9] In spring 2004, a thirty-eight linear foot (38 LF) portion of the wall was damaged by a taxicab, which struck the wall knocking it off its footing. This portion of the wall was subsequently repaired by NPS and is in excellent condition. More recently, the wall at a southern entrance to the square was struck by a vehicle and rebuilt. Vehicular damage to the perimeter wall is a chronic problem. After the city restoration but before turnover to NPS, a large section of the brick wall was knocked down by a truck traveling straight on Locust Street. This prompted subsequent installation of bollards in the sidewalk opposite this intersection.

Background: The perimeter of Washington Square has been delineated with fences and walls at various times since the mid 1700s. The square was first fenced with a board fence in 1769 by David Evans, who was under contract with Joshua Carpenter while Carpenter was leasing the square from the City for use as pasture.[10] When Seventh Street opened through the square in 1795, the street was fenced on both sides with a board fence.[11] In 1816, the square was enclosed with a white wooden paling fence, which is shown in an early 1825 watercolor of the square by John Carr.[12] This fence was removed by 1836-37, to be replaced with a high iron palisade fence set on a granite base. This ornate, Empire style fence featured iron gates and marble entry piers.[13] The iron fence was removed between 1880 and 1883, concurrent with a change in the interior layout of the square. The fence was replaced with a nine-inch (9") granite coping by the Commissioner of City Property William F. Dixey in the early 1880s.[14]

By 1956, the Colonial Revival style brick wall with brick end piers that surrounds the square today was completed under the direction of architect G. Edwin Brumbaugh.[15] The intent of the wall was "to unify the area and to provide a background for the memorial [to the Unknown Revolutionary War Soldier]...The wall is patterned after those which were often built around the burial grounds of Colonial churches."[16] The Washington Square Planning Committee minutes show, "this treatment, which will be similar to 'St. Peter's Wall,' will be of definite 18th Century character and most appropriate

in view of the Independence Mall project and the plans of the Independence National Historical Park."[17] The general contractor for the construction of the wall was John W. Cornell, and the wall was built under the supervision of John B. Kelly.[18]

Significance: The perimeter Colonial Revival style brick wall is significant for its association with the work of the Washington Square Planning Association in the 1950s and with the early historic preservation work of restoration architect G. Edwin Brumbaugh.



Figure 3.5: *Principal entrance at the southeast corner of Washington Square showing the perimeter wall with brick end piers topped with decorative finials (Pressley Associates, 2009).*

Feature – Views & Axial Relationships

Description: The circular fountain and surrounding plaza at the center of Washington Square is the focal point of the four diagonal walks leading into the square. With the exception of the traffic cut-off at the northwest corner of the square (1947) and the Memorial to the Unknown Revolutionary War Soldier (1957) near the center of the square, the layout of the square is bilaterally symmetrical along four (4) lines. The concept of this form of symmetry in the square first appeared in the circa 1816 Bridport design for the square. The most significant axial relationships in Washington Square are its diagonal axis with Independence Square to the northeast and the complimentary axis formed by the walk that runs from the southeast to the northwest corner of the square.

Condition Assessment: Axial relationships in the square, notably from street corner to street corner, as well as a focal point in the center of the square survive from the square's first formal design and have been consciously maintained throughout all re-designs of the square from circa 1816 to present.



Figure 3.6: *Northeast view toward Independence Square (Pressley Associates, 2009).*



Figure 3.7: *View of the DAR Revolutionary War memorial (1900), highlighting Washington Square's relationship to Independence Square (Pressley Associates, 2009).*

Background: The concept of a walk that extends from the southwest corner of Independence Square

to the northeast corner of Washington Square, connecting the two urban squares, first emerged in 1797 when Charles Willson Peale, live-in curator at Philosophical Hall, envisioned the State House Square and Southeast (Washington) Square united together. Although never constructed, Peale proposed a high arched wooden bridge between the Independence Square wall abutments and Southeast (Washington) Square to make a shaded gravel walk of the squares.[19] George Bridport's circa 1816 deign for Washington Square established this connection with diagonal walks through the square, which have been maintained in subsequent re-designs of the square by William Dixey in 1881, the Olmsted Brothers circa 1915, and G. Edwin Brumbaugh in the 1950s.

Significance: Despite changes to the layout of the square from circa 1816 to present, the major views and axial relationships, notably those across the square from street corner to street corner and the focal point in the center of the square, have been retained throughout all re-designs of the square and relate to all periods of significance of the square.

Circulation

Feature – Vehicular Circulation/Streets

Description: Washington Square is bordered by four city streets: Walnut Street to the north, South Washington Square to the south, Sixth Street to the east, and West Washington Square to the west. At the northwest corner of Washington Square, a cut-off connects Washington Square West to the intersection of Seventh Street and Walnut Street. All four streets that border the square are paved with bituminous concrete and maintained by the City of Philadelphia. The street edge is defined by a granite curb, eight inches (8") wide, set flush with the adjacent brick sidewalks and approximately six inches (6") above the grade of the adjacent street surface. Curb stones are cut at crosswalks with curb ramps.

Condition Assessment: The streets that border Washington Square are maintained by the City of Philadelphia and are generally in good condition.

Background: Originally laid-out circa 1683, Philadelphia's streets have had a variety of surfaces throughout their history. Early streets were unpaved and during wet seasons, impassable. In 1762, the city began a widespread program to pave city streets, provided adjoining property owners paved the 'footways' in front of their properties; however, early paving materials are unknown. In 1801, funds were appropriated to pave the gutters of Walnut Street between Sixth and Eighth Streets,[20] which was completed during the summer of 1805.[21] In October 1805, Sixth Street was paved between Walnut and Prune (now Locust) Streets.[22]



Figure 3.8: *Northeastern entrance to Washington Square at the intersection of Walnut Street and Sixth Street (Pressley Associates, 2009).*

The *Pennsylvania Gazette* described a new style of paving in 1795, "…But in those streets which have been lately new paved, the posts have been removed, the sideways raised and in front, towards the street, is a range of hewn stone [curbing], on a common level with the footways. The streets though raised in the middle, lie much lower than formerly. From the top of the street to each side, is a gradual descent, so that the foot-ways are 8-10 inches elevated above the adjoining part of the street;

which renders gutters no longer necessary."[23] Macadam was first used in Maryland in 1823, and by 1831 some streets in Philadelphia were macadamized, whereby a series of successively smaller stones were laid on top of each other and compacted. The method of construction of early paving surfaces around Washington square is unknown.

An extension of Seventh Street ran through Washington Square from 1795[24] until 1822.[25] Initially, the street was fenced on both sides, though unpaved.[26] Space for Washington Square West (now West Washington Square) was appropriated in 1816.[27] Initially called Columbia Avenue and Little Seventh Street, the street was occupied by cattle and horse markets until 1815. The removal of the markets was coincidental with improvements to both the street and the square. In 1913, there was a movement to reopen Seventh Street through the square; however, the cut-through remained closed.

Significance: The perimeter streets and street life are key features in the historic setting of Washington Square. The street curbs also serve as the boundaries of the square, and as such define the relationship of the square to the surrounding city.



Figure 3.9: *Seventh Street traffic cut-off at the northwestern corner of the square (Pressley Associates, 2009).*

Feature – Interior Pedestrian Circulation/Walkways & Accessibility

Description: The interior walkways in Washington Square are paved with New York State bluestone set on a bituminous concrete setting bed. The stone is laid with lateral coursing and the width of the individual paving stones varies. Along the edges of the walkways that lead from street corner to street corner and serve as entrances to the square a two-foot (2') wide band of bluestone defines a clean edge to the paving pattern. At the central fountain plaza, the jointing in the paving radiates from the circular fountain. The original, low two-inch (2") bluestone curbs that border all walkways remain in place. The primary paths are twenty feet (20') wide, and the secondary paths are fifteen feet (15') wide. Bump-outs for the square's teak benches and metal trash receptacles are paved with bluestone and bordered by bluestone curbs.



Figure 3.10: *Low curb edge on pedestrian walks in Washington Square (Pressley Associates, 2009).*

Condition Assessment: The bluestone paving within the square is in excellent condition, generally smooth and flat. The pavement shows little to no cracking, lifting, or separation. In some areas, particularly at corners, the original low bluestone curb has been significantly damaged by foot traffic and deterioration, since the winter of 2010.

Background: Walkways were first laid in Washington Square with crushed stone in 1816. George Bridport's design for the square established the first formal walks with routes that ran from street corner to corner, with a circular interior circuit walk near the center of the square and with a second circular interior circuit walk near the perimeter of the square. Circa 1881, the alignment of the walks was changed to a more geometric layout and their crushed stone surface was replaced with flagstone in accordance with a re-design of the square by Commissioner of City Property William F. Dixey. The circa 1913 design of Washington Square by the Olmsted Brothers reoriented the interior circuit walk to run parallel with the adjacent city streets and established a paved central plaza. Adjustments were also made to the walkway intersections near each entrance to the square. The present alignment of the walks reflects both the circa 1913 Olmsted Brothers design implemented in 1915, as well as improvements associated with G. Edwin Brumbaugh in the 1950s.



Figure 3.11: *Northwestern view from the center of the square (Pressley Associates, 2009).*

In 1975, the perimeter circuit walkways were widened from fifteen feet (15') to twenty-five feet (25') for the Bicentennial celebration in accordance with the design by Asplundh Environmental Services. In 1995, the perimeter circuit walkways were narrowed to their pre-1975 widths and minor adjustments were made to the alignment of the walkways at intersections to improve circulation. The deteriorated Pennsylvania flagstone walkways were all replaced with New York State bluestone with a thermal finish in conjunction with an overall renovation of the square prior to the transfer to the National Park Service. The bluestone is very similar in appearance to the Pennsylvania flagstone; however, its greater durability helps to reduce maintenance and its surface is considerably less slippery when wet. New teak benches and metal trash receptacles were mounted to the bump-outs in the bluestone walkways, rather than on concrete slabs as they had previously been supported.[28]

Significance: The alignment of walks within Washington Square is historically significant as it reflects the work of both the Olmsted Brothers landscape architectural firm circa 1915, as well as the work of restoration architect G. Edwin Brumbaugh in the 1950s. Some elements of the walk layout, as previously mentioned, are also original to the first design of the square circa 1816 and relate to all periods of significance for the square, circa 1816 to present.

Feature – Perimeter Pedestrian Circulation/Sidewalks & Accessibility

Description: The perimeter of the square is surrounded by city sidewalks paved with brick laid in a running bond pattern with bluestone flares at each entrance. Near the street edge, a brick soldier course border (set perpendicular to the running bond) defines an area for fifty-seven (57) tree pits, all of which are planted with *Ginkgo biloba* (Ginkgo). On the opposite side of the walk, at the base of the brick wall, a similar brick soldier course border provides a clean edge to the sidewalk. At each street corner, the bluestone walkways extend from the square at the principal corner entrances across the sidewalk. The triangular traffic island that now comprises the northwest corner of the square is bordered on all sides with concrete sidewalks, separated from the

central planting bed by a concrete curb. The interior bluestone walks only extend from the primary, northern entrance at this location, as a primary, corner entrance is not present.

Condition Assessment: The perimeter brick walks are in good condition with little lifting or separation. In some small areas, bricks bordering the tree pits have come loose and require resetting. The bluestone flares at intersections and the concrete sidewalk at the traffic island are also in good condition.



Figure 3.12: *Eastern view along South Washington Square showing the brick sidewalk that surrounds the square (Pressley Associates, 2009).*

Background: Early maps of Washington Square do not show sidewalks surrounding the square. In fact, the very earliest maps (from Surveyor General Holme's 1683 plan up to Eastburn's 1776 plan[29]) indicate streets running dead-end into the square with no perimeter routes around the square. Bridport's circa 1816 design for the square is the first to show perimeter sidewalks, which are confirmed by renderings of the square from the same era. Until the mid-1800s, it is likely that the perimeter sidewalks were comprised of crushed stone, consistent with the walks within the square. A circa 1870 photograph of the watering trough fountain on the northern side of the square shows that portion of the sidewalk was paved with brick at the time. Later etchings and photographs, however, show stone slab pavement, likely "Pennsylvania flagstone" or bluestone, around portions of the perimeter of the square. The brick perimeter sidewalks now present at Washington Square were laid in the 1990s in conjunction with improvements to the square prior to its transfer to the National Park Service, replacing earlier flagstone walks.

Significance: Perimeter sidewalks around Washington Square have been maintained continuously from circa 1816 to present. Brick was first recorded circa 1870 but later historic photographs and etchings from 1889 on show bluestone pavement. The current brick surface material that covers most of the sidewalks reflects the renovation undertaken in the 1990s, which also replaced the bluestone now expressed only as small paving areas at each entrance. In the future, a change in material away from brick or bluestone should be carefully considered for its effect upon the historic integrity of Washington Square.

Vegetation

Feature – Street Trees

Description: Street trees consist of fifty-one (51) *Ginkgo biloba* (Ginkgo) planted in tree pits along the curb line of the brick sidewalks surrounding Washington Square. The surface of the tree pits consists of exposed soil (no tree grates) with a weed barrier.

Condition Assessment: Street trees surrounding the square are generally in good condition, with minor construction damage from the renovations to the square in the late 1990s and early 2000s. A condition assessment of trees in the square was completed by the NPS Olmsted Center for Landscape Preservation in 2007-8, but did not address the condition of street trees along the perimeter of the square. The NPS at Independence National Historical Park followed-up this assessment in June and July 2008 with an independent street tree assessment. One tree pit on the western side of the square is vacant, after a

Ginkgo was removed when it was damaged by a vehicle.



Figure 3.13: *Street trees along Walnut Street (Pressley Associates, 2010).*

Background: *Ginkgo biloba* (Ginkgo) were first planted as street trees around the square in 1921, as documented by a 1920 plan (approved 1921) showing proposed landscape improvements to the square. Although species are not identified on the plan, photographs from 1941 document the presence of mature Ginkgo surrounding the square. As trees have died and been removed, they have been replaced by the City and NPS.

Significance: Street trees are important in defining the character of the square and buffering the square from the city edge. Street trees surrounding Washington Square date to the period of Fairmount Park Commission's management with the involvement of the Washington Square Improvement Association.

Feature – Specimen Shade Trees

Description: At present, Washington Square contains two hundred thirty-seven (237) trees of at least forty-two (42) different species, ranging from large deciduous canopy trees to small flowering ornamental trees. The majority of these are specimen shade trees, including Norway Maple, (*Acer platanoides*), Planetree Maple (*Acer pseudoplatanus*), Red Maple (*Acer rubrum*), Sugar Maple (*Acer saccharum*), Common Horsechestnut (*Aesculus hippocastanum*), American Chestnut (*Castanea dentata*), Northern Catalpa (*Catalpa speciosa*), Common Hackberry (*Celtis occidentalis*), American Yellowwood (*Cladrastis kentukea*), White Ash cultivar (*Fraxinus americana* cv.), Ginkgo (*Ginkgo biloba*), Thornless Common Honeylocust (*Gleditsia triacanthos* var. inermis), Kentucky Coffeetree (*Gymnocladus dioicus*), American Sweetgum (*Liquidambar styraciflua*), Tuliptree (*Liriodendron tulipifera*), Black Tupelo (*Nyssa sylvatica*), Amur Corktree (*Phellodendron amurense*), London Planetree (*Platanus* x *acerifolia*), Sawtooth Oak (*Quercus acutissima*), Swamp White Oak (*Quercus bicolor*), Turkey Oak (*Quercus cerris*), Shingle Oak (*Quercus imbricaria*), Red Oak (*Quercus rubra*), Black Oak (*Quercus velutina*), Japanese Pagodatree (*Styphnolobium japonicum*), Common Baldcypress (*Taxodium distichum*), American Linden (*Tilia americana*), Littleleaf Linden (*Tilia cordata*), and American Elm cultivar (*Ulmus americana* cv.).

At present, the only evergreen trees planted within the square are five (5) Chinese Holly (*Ilex cornuta*) at some entrances to the square. For additional detailed information regarding existing tree species and location in Washington Square, please see the Existing Condition Plan and associated vegetation legend.

Condition Assessment: Trees within Washington Square are generally in good condition and appear healthy. Tree age and species composition is such that should a severe storm hit or a disease arise that targets a specific species, the square would likely maintain good tree cover, despite some loss. Tree condition is monitored on a continual basis, with each tree examined minimally every two (2) years by park staff. Ongoing tree pruning work is completed on an as-needed basis by park staff or by consultant arborists, who are called-in on a case by case basis.

In 2007-08, the NPS Olmsted Center for Landscape Preservation completed a tree inventory and condition assessment of the trees in Washington Square; tree pruning following the recommendations in the NPS Olmsted Center assessment were subsequently completed by the park. A second inventory was completed in August 2010 by University of Pennsylvania, Morris Arboretum, Urban Forestry Team. For a complete copy of the 2007-8 NPS Olmsted Center tree inventory/condition assessment and the 2010 Morris Arboretum inventory, please see Appendix F, Tree Inventory / Condition Assessment.

In the spring of 2010, a large *Quercus acutissima* (Sawtooth Oak) was removed from near the southeast corner of the square after a large vertical crack was discovered in the trunk of the tree. A condition assessment completed by Jason Lubar, Associate Director of Urban Forestry at the Morris Arboretum in February 2010 indicated that the tree suffered from a five-foot (5') vertical crack from the ground and a cavity at the tree's base. The tree was removed in spring 2010, consistent with the recommendations of the condition assessment.



Figure 3.14: *General view of deciduous trees from the northeast corner of the square (Pressley Associates, 2009).*

Background: Tree planning in Washington Square has a long and varied history. As shown in Appendix G, Analysis of Historic Plant Lists, the square has undergone a number of plantings with a wide variety of different material. The first record of tree planting in Washington Square relates to an Apple tree in the center of the square under which Joshua Carpenter was buried in 1722.[30] In 1794, a row of Lombardy Poplars was planted along sides of the square, following a citizen's petition.[31] In 1794-5 the City Council ordered that two rows of trees be planted in addition to the row already in place around the square.[32] The first major tree planting in the square, however, was undertaken by gardener Andrew Gillespie under the direction of George Bridport in 1817. When the planting was complete, an article in the *National Gazette* criticized the trees, saying that they appeared paltry.[33] In the 1830s, "replantings [*sic*] were made by a trained Irish gardener, [Patrick Kereven, chief gardener shared with Independence Square,] in order to give focus to the foundation stone of a great projected monument to Washington."[34] Planting density was increased, as reported in the *National Gazette*, (1833) "leaving scarcely room for another one to be put down, until, from the regularity of the rows, the divisions of the square have assumed a strong resemblance to a common farm orchard."[35]

The next major phase of planting did not take place until circa 1915, when the Olmsted Brothers landscape architectural firm suggested additional tree planting. In 1954, significant tree pruning, removal, and replanting was undertaken by the Washington Square Planning Committee under the direction of landscape architect Thomas W. Sears. Work on the trees at this time included the removal of fifty-five (55) of the two hundred fifty-five (255) trees, planting of four (4) new trees as well as an extensive planting of shrubs, Dogwood, and bulbs.[36] Additional planting by the Washington Square Association was undertaken under the direction of Sears in 1965.[37]

Within Washington Square, a few trees are identified with plaques. Theses include five (5) trees planted in 1937 by the Society of Little Gardens in commemoration of the one hundred fiftieth anniversary of the signing of the constitution; a White Oak (*Quercus alba*) planted December 17, 1945; a Red Oak (*Quercus rubra*) planted in commemoration of J.B. Lippincott Company's 175th anniversary in 1967; and a London Planetree (*Platanus* x *acerifolia*, the Bicentennial Moon Tree) planted on May 6, 1975 from a seed brought to the moon by astronaut Stuart A. Roosa.



Figure 3.15: *Bicentennial moon tree (Platanus* x *acerifolia) near the northeast entrance to the square (Pressley Associates, 2009).*

In 1995, in preparation for the transfer of the square to the National Park Service, the Delta Group recommended selected tree removal and additional tree planting based on an analysis of existing trees and historic references to different tree species. The plant list for the work, dated March 5, 1997, includes new shade trees, small and flowering trees, and shrubs. For additional information on tree species historically and currently found in Washington Square, please see Appendix G, Analysis of Historic Plant Lists.

Significance: Shade trees have played an important role in defining the character of Washington Square from the time of its first major planting circa 1816 to present. The earliest plan of the square, which dates to 1683, shows trees in the square, highlighting the importance of this landscape feature to the character of the square. Also significant is the variety of specimen shade trees planted in the square, beginning with the Bridport planting, circa 1816.

Feature – Ornamental Flowering Trees

Description: Flowering trees in Washington Square include plantings of Shadblow Serviceberry (*Amelanchier canadensis*), Eastern Redbud (*Cercis canadensis*), Flowering Dogwood (*Cornus florida*), Corneliancherry Dogwood (*Cornus mas*), Washington Hawthorn cultivar (*Crataegus phaenopyrum* cv.), Franklinia (*Franklinia alatamaha*), Common Crapemyrtle 'Pink Velour' (*Lagerstroemia indica* 'Pink Velour'), Saucer Magnolia (*Magnolia* x *soulangiana*), Sweetbay Magnolia (*Magnolia virginiana*), Japanese Flowering Cherry (*Prunus serrulata* 'Kwanzan'), Okame Cherry (*Prunus* x *incamp* 'Okame'), Yoshino Cherry (*Prunus* x *yedoensis*), and Japanese Tree Lilac (*Syringa reticulata*), primarily located at the perimeter of the square and near the square's entrances. For additional detailed information regarding existing tree species and location in Washington Square, please see the Existing Condition Plan and associated vegetation legend.

Condition Assessment: Ornamental flowering trees within Washington Square are generally in good condition and appear healthy. In 2007-08, the NPS Olmsted Center for Landscape Preservation completed a tree inventory and condition assessment of the trees in Washington Square; tree

pruning following the recommendations in the NPS Olmsted Center assessment were subsequently completed by the park. A second inventory was completed in August 2010 by University of Pennsylvania, Morris Arboretum, Urban Forestry Team. For a complete copy of the 2007-8 NPS Olmsted Center tree inventory/condition assessment and the 2010 Morris Arboretum inventory, please see Appendix F, Tree Inventory / Condition Assessment.

Background: Ornamental flowering trees have been present in Washington Square in limited numbers since the early 1800s. Cherry and Magnolia were planted in the square in association with George Bridport's 1816 design. By the early 1900s, however, these species were no longer documented in the square. In the 1950s, landscape architect Thomas Sears recommended the addition of Dogwood and Franklinia to the square. Shadblow Serviceberry, Redbud, Persimmon (no longer extant), Franklinia, Carolina Silverbell (no longer extant), and Sweetbay Magnolia were added to the square in conjunction with renovations prior to the transfer of the square to NPS. Most recently, new Saucer Magnolia were added to the corners of the square by the Society Hill Civic Association in cooperation with NPS. For additional information on ornamental tree species historically found in Washington Square, please see Appendix G, Analysis of Historic Plant Lists.

Significance: Some ornamental flowering tree species in Washington Square are significant for their use in the early design of the square by George Bridport in the 1800s and others for their association with the design of landscape architect Thomas Sears in the 1950s. Other flowering trees within the square are recent additions and are therefore not historically significant. Also significant is the variety of ornamental flowering trees planted in the square, beginning with the Bridport planting, circa 1816.

Feature – Shrubs

Description: Shrubs are planted in mixed borders that flank each entrance to the square and in the planting beds that flank the approach to the Memorial to the Unknown Revolutionary War Soldier. These planting beds are planted and maintained cooperatively by the National Park Service and the Society Hill Civic Association. At the center of the square, an *Ilex crenata* (Japanese Holly) hedge surrounds the central fountain plaza and a mixture of *Ilex crenata* (Japanese Holly) and *Ilex glabra* (Inkberry) flank the approach to the Memorial to the Unknown Revolutionary War Soldier, as well as the back side of the memorial. *Rosa* sp. (Shrub Roses) planted by the Society Hill Civic Association border the outer edge of the hedge planting along the sides of the approach to the memorial.

Condition Assessment: Shrubs within Washington Square are generally in good health. Planting beds are irrigated and most receive ample sunlight.



Figure 3.16: *View of shrubs near the southeastern corner of Washington Square (Pressley Associates, 2009).*

Background: Shrubs were first introduced to Washington Square based on the Olmsted Brothers plan around 1915. The firm's redesign of the square provided, "an opportunity to plant the borders of the square with clumps of ornamental shrubbery…"[38] Shrub planting also served to screen the square from the perimeter streets when there

was not a wall around the square. In the 1950s and 1960s, additional shrub planting was recommended landscape architect Thomas W. Sears under the direction of the Washington Square Planning Committee and later the Washington Square Association, with a large part of the planting work executed by the Fairmount Park Commission. Most recently, the Delta Group recommended the addition of six *Ilex crenata* (Japanese Holly). For additional information on shrub species historically found in Washington Square, please see Appendix G, Analysis of Historic Plant Lists.

Significance: Shrubs in Washington Square are significant for their association with the design work of the Olmsted Brothers firm and the work of landscape architect Thomas W. Sears through the Washington Square Planning Committee and the Washington Square Association. Shrubs found in Washington Square relate to all periods of significance from circa 1913 to present. Many of the shrubs presently located in the square have been planted collaboratively by the Society Hill Civic Association and NPS.

Feature – Herbaceous Plant Material

Description: Herbaceous plant material is integrated into the planting beds that border each entrance to the square and in the planting beds that flank the approach to the Memorial to the Unknown Revolutionary War Soldier. These planting beds are planted and maintained cooperatively by the National Park Service and the Society Hill Civic Association.

Condition Assessment: The majority of the existing herbaceous material in Washington Square has been planted in the past ten (10) years and is generally in good condition.

Background: There is no historical precedent (prior to the 1950s) for herbaceous plant material in Washington Square. The Washington Square Planning Committee Meeting Minutes from April 27, 1954 make reference to planting "spring and fall flowers" in the square by Thomas W. Sears; however, no herbaceous plant list have been located.[39] Much of the existing herbaceous material in the square was planted by the Society Hill Civic Association over the past ten (10) years.



Figure 3.17: *Herbaceous plant material at the southeastern corner of the square (Pressley Associates, 2009).*

Significance: The existing herbaceous plant material in Washington Square is contemporary with recent improvements to the square and is not historically significant.

Feature – Turf

Description: Lawn covers approximately four (4) acres or the majority of the unpaved surface of Washington Square, bordering the perimeter wall along all streets and planting beds at the entrances to the square. Along interior walkways, the edge of lawn is defined by the low bluestone curb that borders the walks, with lawn extending to the base of most trees planted within the square (no mulch rings).

Condition Assessment: The lawn within Washington Square grows vigorously in some areas, but suffers from a lack of adequate sunlight and overuse in other areas. The lawn on the north side of the square required intensive annual rehabilitation

for four (4) years after the transfer to NPS in 2005 due to overuse by school groups. The lawn is seeded twice a year, aerated in the spring, and receives fertilizer annually.



Figure 3.18: *Turf along the eastern side of the square (Pressley Associates, 2009).*

Background: There are many historical references to the grass in Washington Square. The square was leased for pasture and haymaking from 1706 to 1722 to Joshua Carpenter.[40] Subsequently, from 1730 to 1765 the square was leased to Jacob Shoemaker.[41] Finally, from 1766 to 1780 the grounds of the square were leased to Jasper Carpenter also for haymaking.[42] After the square opened for public use as a promenade in the early 1800s, it continued to be used for haymaking.[43] In the 1830s, it was the responsibility of the caretaker, George Hood, to mow the grass three (3) times each summer, presumably by scythe.[44] As mechanical lawn cutting machines were developed in the mid-1800s, a growing aesthetic for trimmed lawn developed. Although undocumented, it is likely that Washington Square was first mechanically mown in the 1870s.

Significance: Lawn has covered the majority of Washington Square through out all periods of the square's history and therefore contributes to all historic periods.

Site Systems & Furnishings

Feature – Grading & Drainage

Description: Catch basins are set along the edges of the bluestone walkways. The metal catch basin grates are eighteen inches by twenty-four inches (18" x 24"). Two types of catch basin covers appear in Washington Square, with two different size slits for water infiltration. In some instances, covers with smaller opening have been replaced with covers with larger openings in order to prevent clogs during heavy rain storms that carry wash-off.

Condition Assessment: Catch basins appear to be in good, working order, with all grate coverings in place and flush with the adjacent grade of the walkways.

Background: Historical documentation of the drainage system in Washington Square is scarce.

Significance: The existing drainage system in Washington Square is contemporary with recent improvements to the square and has not been found to be historically significant.



Figure 3.19: *Example of a drain inlet located in the border of the bluestone walks throughout the square (Pressley Associates, 2009).*

Feature – Lighting

Description: Walkway lights in Washington Square consist of a stanchion with a lantern-type luminaries, both pained black. Each luminary has four panes of glass held together by a metal cap and base. High pressure sodium vapor bulbs in the fixtures produce an orange light. Pole lights within the square number fifty-three (53) and are staggered along both sides of the bluestone walkways throughout the square. The lights were installed in the late 1990s in conjunction with the renovation of the square prior to its transfer to the National Park Service. The existing lights are similar to the replica Benjamin Franklin lights designed for the square by G. Edwin Brumbaugh, with slightly different proportions. Each light has a photovoltaic cell on top, originally designed to control each light independently. Presently, all lights within the square are controlled by a single photovoltaic receptor located on the guard house in the northwest quadrant of the square.



Figure 3.20: *Spotlight directed at the American flag on the central fountain plaza (Pressley Associates, 2010).*

Two (2) spotlights mounted on top of the walkway lights near the center of the square provide illumination for the American flag on the eastern side of the central fountain plaza. At the Memorial to the Unknown Revolutionary War Soldier two (2) spot lights illuminate the eastern façade of the memorial. The spot lights are of an older style, set on metal posts and framed with metal boxes. These lights may be original to the completion of the Memorial to the Unknown Revolutionary War Soldier in 1957.

In the brick sidewalks that border Washington Square, acorn-style luminaries with full cut-off fixtures are set on flair top of posts with simple bases. The luminaries and posts are both painted green. The street lights were installed by the Center City District in 2005 under the direction of Urban Engineers with Cope Linder Architects and are maintained by the City of Philadelphia.



Figure 3.21: *Architect G. Edwin Brumbaugh's electric adaptation of Benjamin Franklin's gas lamp design in Washington Square (Pressley Associates, 2009).*

Condition Assessment: Walkway lights are generally in good working order with few to no broken glass panes or leaning posts. However, the black paint is peeling from the bases of nearly all

light poles within the square. The spotlights that illuminate the American flag and the Memorial to the Unknown Revolutionary War Solider appear well-maintained and are in working order. Streetlights surrounding Washington Square are relatively new and appear well-maintained by the City of Philadelphia.

Background: From 1818 to 1837, Washington Square was illuminated with reflecting lamps.[45] In 1828, John Haviland was commissioned to design new lamps for Washington Square.[46] An ordinance to light Washington Square with gas was passed in August 1837, and gas lamps were installed shortly thereafter.[47] The Olmsted Brother's "Revised Preliminary Plan" for Washington Square dated July 1913 shows a combination of gas and electric lamps in the square. This lighting layout is confirmed by a photograph of a ceremony in progress at the Washington Grays Monument in the center of the square in April 1913.[48]

Lighting within the square was redesigned by architect G. Edwin Brumbaugh in the early 1950s. His design for the lights was based on a previous gas lamp design by Benjamin Franklin, which Brumbaugh adapted to electricity. In total, fifty-four (54) electric Franklin-style lights were installed in Washington Square under the direction of Brumbaugh.[49]

Lighting for the Memorial to the Unknown Revolutionary War Soldier was completed by the Independent Wiring Company, Electrical Engineers and Contractor, in the late 1950s prior to the dedication of the memorial in 1957.[50] At the same time, the lighting project for the central fountain at was abandoned due to cost. The new street lights surrounding Washington Square were installed in 2005 by the Center City District.

Significance: The spotlights are significant as they related to the work of architect G. Edwin Brumbaugh on Washington Square in the 1950s. The existing Franklin-style fixtures are not historic, but represent an in-kind replacement of the earlier fixture, although the design has been altered so that the proportions of the fixture differ from the Brumbaugh design. The streetlights surrounding the square are not historic and are not significant.



Figure 3.22: *Standard street light, installed 2005, at the northwest corner of the square (Pressley Associates, 2010).*

Feature – Fountains

Description: Washington Square features two (2) fountains, a watering trough on the sidewalk along South Washington Square and a fountain in the center of the square designed by G. Edwin Brumbaugh.

The Philadelphia Fountain Society watering trough is located mid-block along the curb line of South Washington Square. The fountain consists of an upper stone basin for watering horses, fed by a pipe,

and a lower basin carved into the curbstone for dogs, which is fed from the upper basin.

The central fountain consists of a concrete basin thirty-three feet (33') in diameter with a two foot (2') wide Indiana limestone coping set at seat height. The exterior of the fountain is clad in a limestone veneer. An ornamental bronze lily pad nozzle, originally designed by G, Edwin Brumbaugh in the 1950s, was fabricated in a larger size and installed in the fountain in 2006 collaboratively by NPS and the Society Hill Civic Association. The fountain nozzle is removed during the winter, when the fountain is drained. The fountain operates on a timer and runs daily from 6AM to 10-11 PM, with the mechanical (pump) vault located in the lawn area to the north of the central plaza.

Condition Assessment: The watering trough fountain is turned on and off annually by the City of Philadelphia. The fountain is missing the marble tablet surmounted by a marble hemisphere with a cast iron eagle with outstretched wings that once adorned the top of the fountain. The inscription on the fountain is deteriorated, making it difficult to read.



Figure 3.23: *Fountain basin and plaza at the center of Washington Square (Pressley Associates, 2009).*

In 2005, renovation work was completed on the central fountain. In 2007, the interior of the central fountain was sandblasted and the interior of the basin recoated with black sealant paint. The fountain is drained and cleaned on a weekly basis, a cycle which takes twelve (12) hours. With the exception of minor cracking of the stone coping and veneer, the fountain is in good, operable condition.

Background: The watering trough fountain was constructed in 1869 on the northern side of the square near the intersection of Walnut Street and Seventh Street by the Philadelphia Fountain Society. The fountain, as originally constructed, stood more than eight feet tall, and featured a marble tablet surmounted by a marble hemisphere with a cost iron eagle with outstretched wings.[51] It was designed with two separate basins to provide water horses, and dogs in addition to the flowing water, intended for people. In 1916, the Bureau of City Property relocated the fountain to the southern side of the square along South Washington Square to accommodate a widening of Walnut Street for trolley cars.

The central fountain was designed by G. Edwin Brumbaugh in the 1950s in conjunction with the central plaza and Memorial to the Unknown Revolutionary War Soldier. The fountain was completed and dedicated in 1957. An ornamental bronze lily pad nozzle was designed by Brumbaugh, but was not constructed in the original project. A new version of the lily pad was fabricated one third larger and installed in 2006.

Significance: The watering trough was erected by the Philadelphia Fountain Society in 1869 was the first of dozens by the recently organized Society under the leadership of Dr. Wilson Cary Swann. The Society intended to relieve animal suffering on hot days while also curtailing drinking and promoting temperance, as many horse owners purchased alcohol at bars in exchange for 'free' water for their horses.[52] The watering trough is significant for its association with the Philadelphia Fountain Society

and its association with Washington Square from 1869 to present.

The central fountain is significant as an integral part of the Memorial to the Unknown Revolutionary War Solider and for its association with the work of G. Edwin Brumbaugh in the 1950s.



Figure 3.24: *The Philadelphia Fountain Society's watering trough (1869) along South Washington Square (Pressley Associates, 2010).*

Feature – Irrigation

Description: Washington Square is irrigated with sprinkler heads in both the lawn areas and in planting beds at the entrances to the square. The square is separated into multiple zones to enable the irrigation pump, located in a below grade vault in the lawn on the northern side of the square, to function efficiently.

Condition Assessment: The irrigation system is in good, working order and provides sufficient irrigation to both the lawn and planting beds in the square at present.

Background: An 1853 "Map of Water Pipes Now Supplied from Fair Mount Waterworks" shows waterlines laid into the square with five fire plugs in the square.[53] On June 21, 1915, "Mr. Dreer thought that an important feature of the future welfare of the proposed planting of the Square would be to have some sort of an irrigation system comprised in the proposed plan, which was also generally agreed to."[54] However, it is not documented if irrigation lines were added at that time. A plan in the Washington Square Association Collection at the Athenæum of Philadelphia prepared by Asplundh Environmental Services in 1975 shows water lines and hose outlets in the square.

Significance: Irrigation is not a historically significant feature in Washington Square.



Figure 3.25: *Irrigation heads in planting beds (Pressley Associates, 2010).*

Feature – Seating

Description: Existing seating in Washington Square consists of ninety-seven (97) teak benches located throughout the square in niches along the bluestone walks. Some benches are paired with trash receptacles. Benches are also located at the perimeter of the central fountain plaza. The wooden benches match those in Independence Square, and are an off-the-shelf style to easily facilitate repair and replacement. The unpainted benches have weathered to a gray color. Benches are anchored in place and are not movable. Many of the benches are dedicated with small metal plaques mounted to the backrests. These plaques recognize donors, whose contributions aided the rehabilitation of the square prior to the transfer to the National Park Service.



Figure 3.26: *Teak bench and recycling receptacle near the center of the square (Pressley Associates, 2010).*

Condition Assessment: In general, the teak benches in Washington Square are in good condition and are widely used thorough the day for both sitting and lying. NPS has a policy prohibiting additional donor dedication plaques in the square.

Background: In 1828, seats were first ordered for the square.[55] Frances Trollope, writing of Washington Square in 1830 indicated, "…This pretty Washington square is surrounded by houses on three sides, but (lasso!) has a prison on the fourth; it is nevertheless the nearest approach to a London square that is to be found in Philadelphia."[56] By the 1880s, "A Plea for the Railings in the Public Squares" indicates that the seats were removed from the square.[57] The 1913 existing Olmsted Brothers' drawings show benches along both sides of the interior circuit walk. A *Philadelphia Inquirer* photograph from 1941 shows citizens resting on benches of varying styles within the square.[58]

Work by Asplundh Environmental Services in 1975 included new benches in the square for the pending Bicentennial. Benches were added along the squares' walkways and benches and tables were also added to the lawn areas around the perimeter of the square. Circa 1997, consistent with the design work Delta Group, new teak benches were added to the square to match the benches in nearby Independence Square.

Significance: Benches have been a feature in Washington Square since 1828, and it is this traditional use (sitting) that is significant, rather than the individual bench design. Seating styles in the square have changed over time. While the design of the benches currently found in the square is not historic, it is compatible with the historic character of the square.

Feature – Trash Receptacles

Description: Trash receptacles in Washington Square consist of black painted steel receptacles installed in the late 1990s consistent with the renovation of the square based on the design by the Delta Group. The receptacles are 45-gallon capacity Victor Stanley, NSDC-45 with LOT steel dome lids and latch and an additional steel floor at the bottom to prevent rodent infiltration. At present, thirty-one (31) trash receptacles are located throughout the square in niches along the bluestone walks. The trash receptacles are fixed in place.

Condition Assessment: In general, the trash receptacles in Washington Square are in good condition. During the summer, trash is collected with hand carts on a daily basis from the square and placed curbside for collection by the City of Philadelphia.

Background: The history of trash receptacles in Washington Square is not well documented. Trash receptacles are evident in a few historic photographs, but the date of introduction is not known. Work in 1975 directed by Asplundh Environmental Services in preparation for the Bicentennial included new trash receptacles in the square. The steel trash receptacles installed in the late 1990s are consistent with the design work by the Delta Group.[59]



Figure 3.27: *Recycling receptacle near the side of the square (Pressley Associates, 2010).*

Significance: The provision of trash receptacles, rather than their design, is necessary in a public open space. Existing trash receptacles are not historic and therefore do not contribute to the historic significance of the property. Like the square's benches, while the trash receptacle design is not historic, it is a compatible feature.

Feature – Flagpoles

Description: There are a total of fifteen (15) flagpoles in Washington Square: one (1) aluminum flagpole flying an American flag is located on the eastern side of the central fountain plaza and fourteen (14) flagpoles flanking the approach to the Memorial to the Unknown Revolutionary War Soldier from the fountain plaza. Each of the fourteen (14) flagpoles is marked with the name of one of the thirteen (13) original colonies and flies the battle flags of the appropriate colony in addition to one (1) American flag.

Condition Assessment: The aluminum flagpole opposite the Memorial to the Unknown Revolutionary War Soldier is in good condition and well-illuminated by the two (2) spot lights mounted on top of nearby walkway light posts. Many of the fourteen (14) flagpoles flanking the approach to the Memorial to the Unknown Revolutionary War Soldier appear to be in good condition; however, tattered edges are apparent on some flags. All flags require a closer examination than is permitted from ground-level to determine exact condition. In 2005, the Maryland flag was replaced after it went missing.



Figure 3.28: *Fourteen flagpoles bearing the battle flags of the thirteen colonies flanking the approach to the Memorial to the Unknown Revolutionary War Solider (Pressley Associates, 2009).*



Figure 3.29: *Each flagpole has a plaque bearing the name of one of the thirteen colonies (Pressley Associates, 2010).*

Background: The history of flagpoles in Washington Square is not well documented prior to the design of the Memorial to the Unknown Revolutionary War Solider. At the time the memorial was constructed, the thirteen (13) battle flags and the original

American flag were only flown on ceremonial occasions, being replaced with specially-designed blue flags bearing the name of each of the thirteen (13) colonies at other times. Although many battle flags existed for each state at the time of the revolution, the thirteen (13) governors were contacted in the 1950 and asked to designate a flag most appropriate to represent their state at the memorial, all of which were custom-made in Philadelphia.

Significance: The flagpoles in Washington Square all relate to the work of architect G. Edwin Brumbaugh, the Memorial to the Unknown Revolutionary War Soldier, and the improvements undertaken in the square in the 1950s, and are therefore significant for their association with the work of Brumbaugh.

Feature – Metal Bollards

Description: Six (6) cast metal bollards with ball top finials are located in the brick sidewalk on the northern side of the square where Locust Street intersects with Walnut Street. The bollards are painted black, and designed to stop traffic from continuing along Locust Street into the Colonial Revival style brick wall that surrounds the square.

Condition Assessment: One of the bollards on the west side of the square has lost its ball top. All bollards need to be repainted.

Background: The bollards were added to the northern side to the square in 2006 in conjunction with the Center City District pedestrian lighting improvements. There is no evidence of the presence of bollards in Washington Square prior to 2006.

Significance: Bollards in Washington Square are contemporary with recent improvements to the square and are not historically significant.



Figure 3.30: *Metal bollards opposite the end of Seventh Street on the northern side of Washington Square (Pressley Associates, 2010).*

Feature – Guard House Buildings

Description: Two small guard house buildings are located in Washington Square. The first is located on the outer edge of the interior circuit walk near the southeast corner of the square. The second is located slightly to the northwest of the center of the square. Electrical service is provided to both buildings.

The guard house at the southeast corner of the square occupies a seven foot by eight foot (7'x8') footprint. The wooden building is set on grade, with bluestone paving on the south and west sides. The exterior of the guard house is paneled for an Arts and Crafts-inspired effect. Each elevation consists of three (3) panels, with windows in the central panel on each side. On the fourth side of the building, double doors with windows provide access to the interior. A pad lock secures the door. All windows on the building have been painted black. Decorative bead board set at a forty-five-degree angle fills the solid panels, and ornate decorative brackets with scrollwork adorn the corners of the building under an overhanging eave. The building features a wood-shingled gable roof and is painted white with dark green trim. The building does not have a foundation or pad. Presently, the guard house is used for storage and maintenance purposes.



Figure 3.31: *Arts and Crafts-inspired wooden guard house near the intersection of Washington Square South and Sixth Street (Pressley Associates, 2009).*



Figure 3.32: *Wooden guard house with a pyramidal hipped roof to the northwest of the center of the square (Pressley Associates, 2009).*

The guard house near the center of the square occupies a ten foot by ten and a half foot (10′ x 10′-6″) footprint. The wooden building rests on a concrete slab foundation, and is surrounded on all sides by concrete sidewalk. The exterior of the guardhouse features a single window on each of three sides and a door on the fourth. An emergency shut-off for the gas service to the eternal flame on the Memorial to the Unknown Revolutionary War Soldier is located to the right of the door. A pad lock secures the door. Metal grates protect the windows. The pyramidal hip roof features kicked eaves is clad with large copper shingles, and the peak of the roof is adorned with an acorn-shaped finial. The exterior of the building is comprised of bead board and is painted a shade of light green with dark green trim. Presently, the guard house is used as a utility building for the square, and houses maintenance supplies and the timer and controls for the irrigation system.

Condition Assessment: The exterior of the guard house near the southeast corner of the square is in fair condition, with extensive wood decay along the bottom sill, particularly at the southeast corner of the building, where it is in contact with the exposed ground. Both the wood shingle roof and windows appear in good condition; however, the exterior is in need of an additional coat of paint.

The exterior of the guard house near the center of the square is in fair condition. The north window frame is rotting and has lost its sill. This building also needs repainting. The copper roof appears to be in good condition.

Background: Guard houses were first constructed in the Fairmount Park System in 1870 for the Fairmount Park Guard, established the same year, to patrol the park's dispersed grounds. By 1952, a total of one hundred and two (102) guard houses were located throughout the park system, the majority of which were traditional wood construction with varying architectural styles. In 1972, the Fairmount Park Guard was disbanded, merging with the City's Police Department. Many of the guard houses in the park system were abandoned, fell into disrepair,

were vandalized, and finally demolished due to high maintenance demand. As of 2002, less than twenty (20) survived, two (2) of which are located in Washington Square.[60]

The guard house that stands near the southeast corner of the square was constructed in the 1890s as a movable guardhouse without a permanent foundation. The abundance of this style of guard house, constructed throughout the park system, supports its popularity for an extended period of time in the park system's history. Despite its early estimated construction date, this guardhouse first appears on plans of the square after the 1950s.

The guard house near the center of the square was first referenced in the early 1900s in association with the design work of the Olmsted Brothers and in a photograph of the square from 1916. Subsequent to its use by the Fairmount Park Guard, the building was also used as a maintenance building and featured a concrete block addition on its northeast side. This addition was removed in conjunction with renovations to the square in preparation for its transfer to the National Park Service.[61] Prior to the transfer of Washington Square in 2005, both buildings were painted by the Fairmount Park Commission. Measured drawings exist for both buildings, completed in 1969 (NW guardhouse) and 1988 (SE guardhouse) by the Historic American Buildings Survey (HABS).

Significance: The Fairmount Park System guardhouses in Washington Square are significant as two (2) of the less than twenty (20) remaining guard houses of the original one hundred plus (100+) structures that housed the Fairmount Park Guard. The buildings are extant relics of Fairmount Park's involvement with Washington Square from 1915[62] to 2005. The guard house near the southeast corner of the square is exceptionally significant, as it is one of the oldest remaining examples.

Feature – Interpretive & Directional Signs

Description: Washington Square features a wide variety of interpretive and directional signage, most recently inventoried in "Survey of Washington Square Plaques & Waysides" by John Nelson, Intern, Independence National Historical Park, January 2006. The 2006 survey identified forty-two (42) individual plaques and waysides within Washington Square, included as Appendix E of this report.



Figure 3.33: *Welcome to Washington Square identification plaque (2002) at the southeastern entrance to the square (Pressley Associates, 2009).*

The most recent signage additions to the square are a series of waysides and identification signs installed in October 2002. The identification signs consist of stone tablets mounted to the wall piers at each of the major entrances to the square, as well as a free-standing "Welcome to Washington Square" wayside at the northeast entrance to the square. Six (6) additional waysides, which interpret the history of the square, are located along the walkway from the northeast corner of the square to the central plaza.

Visitor regulation signs were added to each entrance to the central plaza 2005 by NPS and forbid swimming in the fountain. Additional small signs direct visitors to a cell phone interpretive program administered by Independence National Historical Park.



Figure 3.34: *Washington Square information and rules plaque at the northeast entrance to the Square (Pressley Associates, 2009).*

Condition Assessment: The "Welcome to Washington Square" wayside at the northeast corner of the square has a scratched face and chipped edge. The stone tablet identifying Washington Square at the northwest corner of the square was recently broken in half, but has been repaired. All other interpretive and directional signs appear in good condition.



Figure 3.35: *Interpretive waysides (2002) near the northeast entrance to the square (Pressley Associates, 2009).*

Background: The interpretive waysides and identification signs were added to the square in October 2002, designed by Joel Katz Design Associates in conjunction with History Now of the Rittenhouse Foundation. Visitor regulation signs were added to the square in 2005 by NPS.

Significance: The interpretive waysides and directional signs presently in the square are contemporary with the most recent phase of improvements and are not historically significant.

Feature – Miscellaneous Traffic-related Furnishings

Description: Modern traffic-related furnishings along the sidewalks surrounding Washington Square include traffic signals, street signs, parking pay kiosks, steel tube bike racks, and parking meter posts (with meters removed following the installation of pay kiosks).



Figure 3.36: *Parking pay kiosk along Walnut Street (Pressley Associates, 2010).*

Condition Assessment: Traffic-related furnishings are owned and maintained by the City of Philadelphia and all appear to be in good condition.

Background: Historical documentation of miscellaneous traffic-related furnishings at the perimeter of Washington Square is scarce, but all are typical street furnishings used in the city.

Significance: Traffic-related furnishings do not contribute to the historical significance of Washington Square.

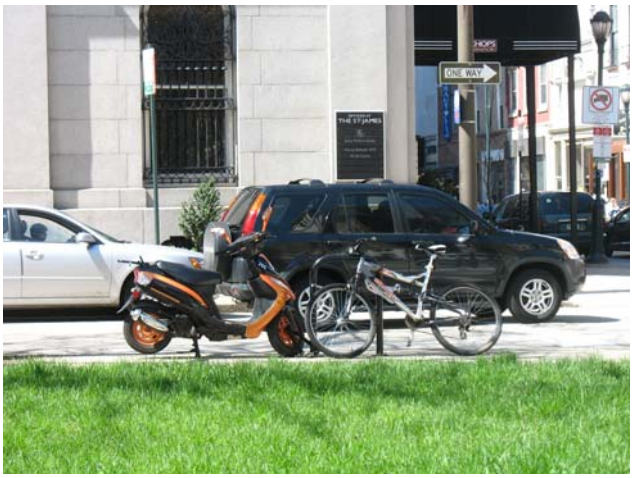


Figure 3.37: *Steel tube bike racks at the northwest corner of the square (Pressley Associates, 2010).*

Feature—Newspaper Boxes

Description: Newspaper boxes are located on the traffic island at the northwest corner of the square, confined to a specific area on the north side of the traffic island by a metal tube enclosure.

Condition Assessment: Newspaper boxes are privately owned and maintained by their owners.

Background: Although historical documentation of newspaper boxes is scarce, the newspaper boxes are contemporary to the bicycle racks on the traffic island and are a relatively recent addition.

Significance: Newspaper boxes do not contribute to the historical significance of Washington Square. Furthermore, newspaper boxes require a federal right of way permit to be located on government property, with associated rent fees.

Statues & Memorials

Feature – Memorial to the Unknown Revolutionary War Soldier

Description: The Memorial to the Unknown Revolutionary War Soldier is the only major statue in Washington Square. The memorial consists of a sarcophagus that contains the remains of an unknown Revolutionary War soldier exhumed from the northwest corner of Washington Square under the direction of archaeologists Lt. Col. Duncan Campbell and John Witthoft in 1956 and is flanked by two limestone benches. On the memorial is a bronze statue of George Washington set against an Indiana limestone wall inscribed with, "Freedom is a light for which many have died in darkness." At the base of the memorial, which is surrounded by bollards linked with a bronze chain, burns an eternal flame, added to the memorial at the time of the Bicentennial in 1976. The memorial is framed by two London Planetree (*Platanus* x *acerifolia*), and the approach to the memorial from the central fountain plaza is flanked by fourteen (14) flags (addressed above).



Figure 3.38: *Memorial to the Unknown Revolutionary War Solider, designed by G. Edwin Brumbaugh in 1956 (Pressley Associates, 2009).*

Condition Assessment: The Memorial to the Unknown Revolutionary War Soldier is in excellent condition. Deteriorating portions of the limestone memorial were replaced in 2001-2 and the entire memorial received a conservation treatment. In 2005, one (1) portion of the bronze chain that surrounds the sarcophagus was stolen and has been temporarily replaced with steel chain. One section was also replaced prior to the square's transfer from the city to NPS. The eternal flame was rebuilt in 2003, with gas service provided from Washington Square West through the perimeter wall to the west, replacing an earlier propane tank behind the wall.



Figure 3.39: *Bronze cast of a standing figure of George Washington by Jean Antoine Houdon on the Memorial to the Unknown Revolutionary War Solider (Pressley Associates, 2009).*

Background: The memorial was designed cohesively with the central plaza and fountain by architect G. Edwin Brumbaugh in the 1950s and dedicated on June 21, 1957 by the Secretary of the Navy Thomas S. Gates Jr. The statue on the monument is a bronze replica of Jean Antonie Houdon's standing figure of Washington, originally commissioned by Thomas Jefferson in 1785. The original statue is the only full size statue of Washington done from life.[63] The words inscribed on the wall, are the words of John J. Pullen, a copywriter in the 1950s for, N.W. Ayer & Son, one of the Washington Square publishing houses.[64]

Significance: The Memorial to the Unknown Revolutionary War Soldier is the result of a long effort to memorialize both George Washington and those who died in the Revolutionary War. The effort was initiated in 1816, when the name Washington Square was first suggested for Southeast Square, but not realized until 1957, when the existing memorial was dedicated.

Feature – Commemorative Plaques

Description: A wide variety of commemorative plaques set on finished or natural stone bases are located throughout Washington Square and range from those that commemorate important associations, events, and additions to the square to those that commemorate people and events that are locally significant or related to national military events. A complete inventory of commemorative plaques can be found in Appendix E, Survey of Washington Square Plaques & Waysides (2006).

An etched granite paving stone set in the approach to the Memorial to the Unknown Revolutionary War Soldier in 2002 is noteworthy as it recognizes the numerous contributors to the most recent restoration of the square between 1991 and 2002: American Revolution Patriots Fund, Barra Foundation, City of Philadelphia, Fairmount Park Commission, Independence National Historical Park, National Park Service, National Society of Daughters of the American Revolution, National Society of Sons of the Revolution, Pennsylvania Society of Sons of the Revolution, the Color Guard, Washington Square Association, and the William Penn Foundation.

Condition Assessment: Plaques within Washington Square are generally in good condition. One plaque near the northeast corner of the square is missing from its natural stone base and the U.S.S. Kitty Hawk plaque, located below the American flag on the central plaza is corroded beyond legibility.



Figure 3.40: *D.A.R Revolutionary War memorial (1900) near the northeast corner of the square (Pressley Associates, 2009).*

Background: The oldest and most prominent commemorative plaque on the square is the Daughters of the American Revolution plaque set in a commemorative boulder dedicated to the American soldiers who died during the Revolution, added to the square in October 1900. Since that time, plaques have been added to the square by local, state, and national groups for various commemorative purposes. Under its present ownership, NPS has a policy of no additional commemoration in the square.

Significance: Plaques added to the square by 1957 are historically significant as they trace improvements to the square or commemorate nationally significant events and individuals.

Archaeological Features

Description/Background: Since the 1950s, three (3) archaeological investigations have been completed in Washington Square, which have uncovered remains associated with the square's use as a potter's field and burial ground for Revolutionary War casualties. The earliest of these investigations was undertaken in 1956 by Lt. Col. Duncan Campbell, archaeologist and consultant to the State Museum; John Witthoft, director of the State Museum and former State anthropologist; and Joseph Holmes, aide to the state archaeologist.[65] This investigation was undertaken to locate the remains of a Revolutionary War soldier to be reinterred in the sarcophagus on the Memorial to the Unknown Revolutionary War Soldier (1957).

During a five (5) day search, eight (8) excavation units were dug along the southern and western sides of the square. On November 20, 1956, four (4) burials were investigated in an excavation unit in the northwest corner of the square, and a skeleton was exhumed from a depth of about six feet (6') to be reinterred in the sarcophagus. All burials were made with feet to the east, head to the west in diamond-shaped walnut coffins, in keeping with eighteenth century burial practice. All burials were made with no associated manmade material. Thus, it was concluded that all were shroud burials. Investigations also uncovered other unassociated broken brick, mortar, glass, animal bone, china, and other man-made debris.[66]

In 1996, John Milner Associates were contracted by the Delta Group to undertake an archaeological investigation in the square. In May 1996, ten (10) three foot by three foot (3'x3') units were excavated across the interior of the square and eight (8) units were excavated under sidewalks around the perimeter of the square. Two (2) of the excavation units on the western side of the square revealed human burials: one fifteen inches (15") below the paving at the southwest corner of the square and one three feet (3') below the lawn to the west of the Memorial to the Unknown Revolutionary War Soldier. The archaeological investigation also uncovered the remains of a wall or foundation outside the square's northeast corner, as well as other artifacts, including domestic refuse and construction debris.[67]

In 2000, John Milner Associates was again contracted by the Fairmount Park Commission and Tony DePaul & Son to supervise and monitor

various construction-related excavations during the restoration of Washington Square. In the course of construction, seventeen (17) intact burials were partially exposed by construction excavations, fifteen (15) of which occurred within trenches dug for the new drainage system. The majority of these newly documented burials occurred in the northwest quadrant of the square. A small quantity of skeletal fragments, previously disturbed, were also identified, representing a minimum of two (2) individuals. Fifteen (15) of the remains were male, one (1) female, and one (1) unidentified. Artifacts associated with the burials of two (2) of the individuals were also uncovered. Sections of two (2) brick culverts were also uncovered during the project, which correspond to the locations of the Dock Creek tributaries that ran through the square in the seventeenth and eighteenth centuries.[68]

Human remains have also been periodically reported during construction projects in the square. Scharf and Westcott (1884) mention that "some of the mouldering [*sic*] relics of the old Potter's Field were disturbed" during excavations for the cornerstone of the proposed monument to George Washington in 1832.[69] Again in 1915, workers excavating a sewer line along the west side of the square unearthed two (2) skulls and several small bones, which were subsequently identified as human remains. The *Public Ledger* article about event indicates, "the soldiers, it is said, were buried in the west side of the square, and although it is supposed that their bodies were taken out many years ago and reinterred in West Philadelphia, it is possible that some were missed."[70] However, there is no further historical evidence that bodies were exhumed from Washington Square and reinterred. In October 2008, two (2) segments of bluestone curb were found in a planting bed approximately five feet (5') north of the walk along South Washington Square near the southeast corner of the square. The curb stones were left in place for future exploration.[71]

Condition Assessment: The condition/integrity of archaeological resources is not known; given the number of alternations to Washington Square it is likely some have been disturbed.

Significance: Below-ground archaeological resources, including evidence of past use, features, and human remains, are likely significant, but further work is needed to determine their association beyond the limited study completed to date.

Endnotes

[1] *A Short Advertisement upon the Situation and Extent of the City of Philadelphia and the Ensuing Plat-form thereof, by the Surveyor-General*, London, 1683, as quoted in John W. Reps. *Town Planning in Frontier America*. Princeton, NY: Princeton University Press, 1969, pp. 211-212.

[2] Francis James Dallett. *An Architectural View of Washington Square*. Frome, England: Butler & Tanner, 1968, p. 21. And George Vaux to Mr. Bronson, n.d. (circa 1816-1824).

[3] W.F. Prown, ed. *Digest of Laws and Ordinances Concerning Philadelphia*, p. 193. and Dallett. *An Architectural View of Washington Square*, p. 23.

[4] "Washington Sq. Cut-Off Approved by Park Board." *The Philadelphia Inquirer*. 14 March 1947.

[5] J. Thomas Scharf and Thompson Westcott. *History of Philadelphia, 1609-1884*, Vol. III. Philadelphia, PA: L.H. Everts & Co., 1884, p. 2356.

[6] Lukens Papers, 1760-1788, APS. July 1766. [John Lukens] Survey Book.

[7] Minutes of the Common Council Vol. 3- Jan. 1803-May 17, 1813, pp. 14, 16, as quoted in Woloson. "Washington Square," pp. 25-26.

[8] Scharf and Westcott. *History of Philadelphia,* Vol. III, p. 1845. and Minutes of the Common Council Vol. 3- Jan. 1803-May 17, 1813, pp. 150-151, as cited in Woloson. "Washington Square," p. 27.

[9] The Delta Group, Landscape Architects. "Washington Square Restoration Plan, Final Cost Estimate." 25 July 1997, rev. 6 November 1997.

[10] Dallett. *An Architectural View of Washington Square*, p. 21, from George Vaux's letters.

[11] John F. Watson, rev. by Willis P. Hazard. *Watson's Annals of Philadelphia and Pennsylvania*, Vol. III, Philadelphia, PA: Edwin S. Stuart, 1899, p. 230.

[12] "A House in Washington Square." *Annals, Notes from The Athenæum of Philadelphia*. Vol. III, No. 3 (March 1957), p. 2.

[13] "History of the City's Oldest House" *Evening Bulletin*, 25 February 1949. Free Library of Philadelphia, Castner Scrapbooks on microfilm. Reel 2, vol. 18, p. 33.

[14] City of Philadelphia. *Journal of the Select Council of the City of Philadelphia*, Apr. 4, 1881 to Sept. 29, 1881. Philadelphia, PA: E.C. Markley & Son, 1881, p. 77, as quoted in Denise R. Rabzak for the National Park Service, Independence National Historical Park. "Washington Square: A Site Plan Chronology, 1683-1984," May 1987, p. 19.

[15] "Remains of Revolutionary Soldier Hunted In Washington Square for a Memorial." *The Sunday Bulletin*, 5 August 1956.

[16] *Washington Square*. N.W. Ayer & Son, 1957, p.10.

[17] Washington Square Planning Committee, "Minutes of Meeting", 27 April 1954.

[18] *Washington Square*. N.W. Ayer & Son, 1957, p.12.

[19] Anna Coxe Toogood, Historian, National Park Service, Independence National Historical Park. "Cultural Landscape Report, Independence Square, Volume One, Historical Narrative," p. 117, citing Sellers Papers, Charles Wilson Peale's Autobiography, typescript copy, p. 233.

[20] Minutes of the Common Council Vol. 2-Feb. 18, 1799-Jan. 13 1803, p. 157, as quoted in Woloson. "Washington Square," p. 23.

[21] Phila., County of, Misc. Papers, 1802-1855.

[22] Minutes of the Common Council Vol. 3- Jan. 1803-May 17, p. 198, as quoted in Woloson. "Washington Square," p. 27.

[23] As quoted in National Park Service. National Register of Historic Places, Inventory-Nomination Form for Independence National Historical Park, entered 21 January 1988, Sec. 7, pp. 42-43.

[24] George Vaux to Mr. Bronson, n.d. (circa 1816-1824). and Dallett. *An Architectural View of Washington Square*, p. 21.

[25] W.F. Prown, ed. *Digest of Laws and Ordinances Concerning Philadelphia*, p. 193. and Dallett. *An Architectural View of Washington Square*, p. 23.

[26] Watson. *Watson's Annals of Philadelphia and Pennsylvania*, Vol. III, 1889, p. 230.

[27] Joseph Jackson. *Encyclopedia of Philadelphia*, Vol. IV. Harrisburg, PA: The National Historical Association, 1933, p. 1170.

[28] Richard Tyler, Historic Preservation Officer to Brenda Barrett, Director, Bureau for Historic Preservation of the PA Historical & Museum Commission, 20 September 1995.

[29] "A Plan of the City of Philadelphia, the Capitol of Pennsylvania, from an Actual Survey by Benjamin Eastburn, Surveyor General, 1776."

[30] John F. Watson. *Watson's Annals of Philadelphia and Pennsylvania*, Vol. I, Philadelphia, PA: Elijah Thomas, 1857, pp. 405-7.

[31] *Moreau de St. Mery's American Journey*, 1793-1798, pp. 343-44.

[32] Alice B. Lockwood. *Gardens of Colony and State*, Vol. I, New York, NY: Charles Scribner's Sons for the Garden Club of America, 1931-34, p. 335.

[33] "One Hundred Years Ago." *National Gazette*, 10 February 1833. APS, Horace Wells Sellers Collection.

[34] "A House in Washington Square," p. 2.

[35] "One Hundred Years Ago."

[36] Washington Square Planning Committee, "Minutes of Meeting", 27 April 1954.

[37] Thomas W. Sears, Landscape Architect, to Harry A. Batte, N.W. Ayer & Son Inc. 27 September 1965.

[38] P.G. [Percival Gallagher], Olmsted Brothers, to Charles F. Jenkins, Washington Square Improvement Association, 22 April 1913, pp. 11-12.

[39] Washington Square Planning Committee, "Minutes of Meeting", 27 April 1954.

[40] Scharf and Westcott. *History of Philadelphia,* Vol. III, p. 2356.

[41] Samuel Hazard, ed. *Pennsylvania Archives. Selected and Arranged from Original Documents in the Office of the Secretary of the Commonwealth,* Vol. XII, Philadelphia, PA: Joseph Severns & Co., 1856, p. 471.

[42] Scharf and Westcott. *History of Philadelphia,* Vol. III p. 2356.

[43] "A House in Washington Square," p. 2.

[44] City Council, Committee City Property, Agreements, 1834-1855, MSS., Phila. Archives, p. 1.

[45] Rabzak. "Site Plan Chronology," p. 12 citing an untitled article.

[46] Dallett. *An Architectural View of Washington Square*, p. 23.

[47] Scharf and Westcott. *History of Philadelphia, 1609-1884*, Vol. III, p. 1846.

[48] Bill Double. *Philadelphia's Washington Square*. Charleston, SC: Arcadia Publishing, p. 2009, 74.

[49] *Washington Square*. N.W. Ayer & Son, 1957, p.12.

[50] Independent Wiring Company, Electrical Engineers and Contractor. Lighting Plan.

[51] Bill Double. "A Modest Fountain on the Square." *Pennsylvania Heritage* (Summer 2009): 6-13.

[52] Double. "A Modest Fountain on the Square," pp. 6-13.

[53] Philadelphia Water Department. Drawn by Frederick Graff, Engineer & Superintendent. Lith. by W. H. Rease, 17 S. 5th St., Phila. "Map of Water Pipes Now Supplied from Fair Mount Water Works." P. S. Duval & Co's Steam Lith. Press, Phila., 1853.

[54] Minutes of a meeting of the Washington Square Improvement Association, Philadelphia, 21 June 1915.

[55] Dallett. *An Architectural View of Washington Square*, p. 23.

[56] Frances Trollope. *Domestic Manners of the Americans*, New York, NY: Dodd, Mead & Company, 1901, p. 265.

[57] "A Plea for the Railings," n.p., n.d. (circa 1888-90).

[58] *Philadelphia Inquirer*, 1941.

[59] Richard Tyler, Historic Preservation Officer to Brenda Barrett, Director, Bureau for Historic Preservation of the PA Historical & Museum Commission, 20 September 1995.

[60] Courtney LaRuffa, "A Cultural and Architectural History of Fairmount Park's Guard Boxes," August 2002 and Courtney LaRuffa, "Guard Box Chronology," August 2002.

[61] LaRuffa. "A Cultural and Architectural History of Fairmount Park's Guard Boxes."

[62] *Laws, Ordinances and Regulation Relating to Fairmount Park and Other Parks under the Control of the Fairmount Park Commission*. Philadelphia, PA: Printed for the Commission, 1933, p. 352.

[63] *Washington Square*. N.W. Ayer & Son, 1957, p.19.

[64] John L. Cotter, Daniel G. Roberts, and Michael Parrington. *The Buried Past: An Archaeological History of Philadelphia*. Philadelphia, PA: University of Pennsylvania Press, 1993, p. 205.

[65] "Diggers Uncover Soldiers' Bones from Revolution." *The Philadelphia Inquirer*, 21 November 1956, p. 12.

[66] J. Duncan Campbell. "Report on Excavations, Washington square, Philadelphia, Pa.," 12-20 November 1956.

[67] Thomas A.J. Crist and Daniel G. Roberts, John Milner Associates Inc. "An Archaeological

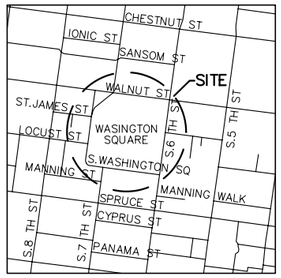
Investigation of Washington Square, Philadelphia, Pennsylvania," prepared for the Delta Group, 1996, Abstract.

[68] Daniel G. Roberts and Tod L. Benedict, John Milner Associates, with contributions by Thomas A.J. Crist and Kise Straw & Kolodner, Inc. "Archaeological Supervisions and Monitoring of Restoration Activities at Washington Square, Philadelphia, Pennsylvania," prepared for Fairmount Park Commission and Tony DePaul & Son, Abstract.

[69] As cited in Crist and Roberts. "An Archaeological Investigation," p. 16.

[70] *Public Ledger*, 9 June 1915, as cited in Rabzak. "Site Plan Chronology," p. 22.

[71] Jim Mueller. Notes on removal of root balls of Yew bushes with attached diagram. 22 October 2008.

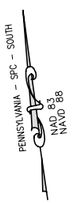


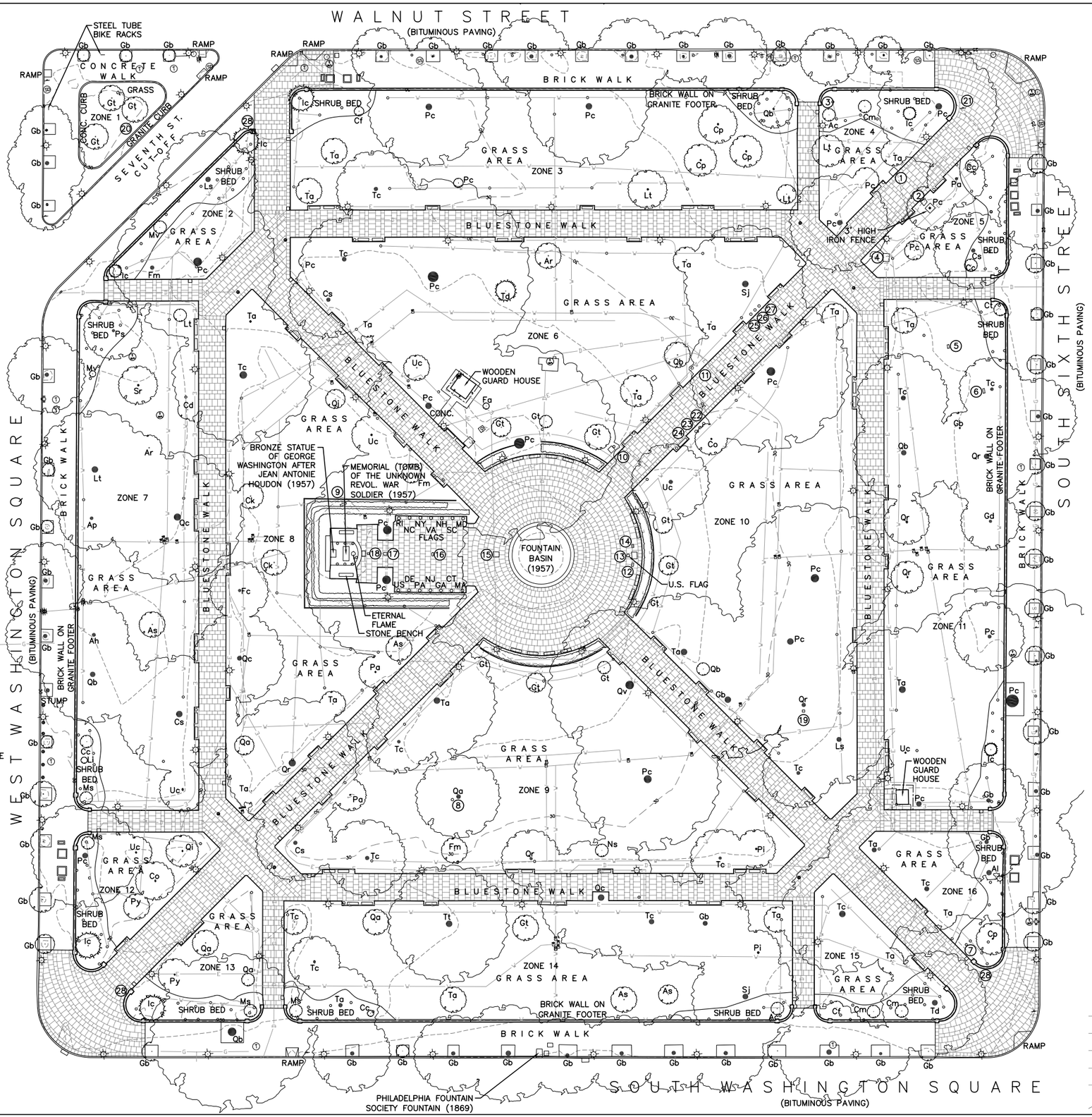
VICINITY MAP
NOT TO SCALE

MEMORIALS, PLAQUES & WAYSIDES

1. WASHINGTON SQUARE INFO. AND RULES PLAQUE (ND)
2. BICENTENNIAL MOON TREE PLAQUE (1975)
3. MAYOR AND MRS. RICHARDSON DILWORTH PLAQUE (1974)
4. D.A.R. PLAQUE ON NATURAL STONE MONUMENT (1900)
5. MISSING PLAQUE (ND)
6. AMERICA PROJECT PLAQUE (1979)
7. NATIONAL REGISTER OF HISTORIC PLACES PLAQUE (1982)
8. WHITE OAK PLAQUE (1945)
9. CAROLYN RANDALL PLAQUE (1980)
10. TOM FOGLIETTA LOW-RELIEF PORTRAIT BUST & PLAQUE (ND)
11. THE SOCIETY OF LITTLE GARDENS PLAQUE (1937)
12. U.S.S JOHN F. KENNEDY PLAQUE (1995)
13. U.S.S. KITTY HAWK PLAQUE (1991)
14. U.S.S. FORRESTAL PLAQUE (1995)
15. ENGRAVED PAVING STONE FOR THE RESTORATION OF WASHINGTON SQUARE (2002)
16. WE THE PEOPLE ENGRAVED PAVING STONE (1987)
17. UNKNOWN REVOLUTIONARY WAR SOLIDER MEMORIAL PLAQUE SET IN PAVING STONE (1957)
18. ETERNAL FLAME PLAQUE SET IN PAVING STONE (1976)
19. LIPPINCOTT COMPANY ANNIVERSARY PLAQUE (1967)
20. WASHINGTON SQUARE FRIENDS AWARD PLAQUE (2000)
21. "WELCOME TO WASHINGTON SQUARE" WAYSIDE (2002)
22. "SORROW AND JOY" WAYSIDE (2002)
23. "CONGREGATION OF THE DEAD" WAYSIDE (2002)
24. "LINKED IN MEMORY" WAYSIDE (2002)
25. "A FASHIONABLE PROMENADE" WAYSIDE (2002)
26. "THE CAPITAL CITY" WAYSIDE (2002)
27. "PENN'S PLAN" WAYSIDE (2002)
28. WASHINGTON SQUARE IDENTIFICATION PLAQUES MOUNTED TO WALL (2002)

NOTE: UNLESS OTHERWISE NOTED, ALL PLAQUES ARE MOUNTED ON NATURAL OR FINISHED STONE BASES.





VEGETATION LEGEND

Al	Acer platanoides
Ap	Acer pseudoplatanus
Ar	Acer rubrum
As	Acer saccharum
Ah	Aesculus hippocastanum
Ac	Amelanchier canadensis
Cd	Castanea dentata
Cs	Catalpa speciosa
Co	Celtis occidentalis
Cc	Cercis canadensis
Ct	Cercis canadensis 'Tennessee Pink'
Ck	Cladrastis kentukea
Cf	Cornus florida
Cm	Cornus mas
Cp	Crataegus phaenopyrum cv.
Fa	Franklinia alatamaha
Fm	Fraxinus americana
Fc	Fraxinus americana cv.
Gb	Ginkgo biloba
Gt	Gleditsia triacanthos var. inermis
Gd	Gymnocladus dioicus
Ic	Ilex cornuta
Li	Lagerstroemia indica 'Pink Velour'
Ls	Liquidambar styraciflua
Lt	Liriodendron tulipifera
Ms	Magnolia x soulangiana
Mv	Magnolia virginiana
Ns	Nyssa sylvatica
Pa	Phellodendron amuense
Pc	Platanus x acerifolia
Pi	Prunus x incamp 'Okame'
Ps	Prunus serrulata 'Kwanzan'
Py	Prunus x yedoensis
Qa	Quercus acutissima
Qb	Quercus bicolor
Qc	Quercus cerris
Qi	Quercus imbricaria
Qr	Quercus rubra
Qv	Quercus velutina
Sj	Styphnolobium japonicum
Sr	Syringa reticulata
Td	Taxodium distichum
Ta	Tilia americana
Tc	Tilia cordata
TT	Tilia tomentosa
Uc	Ulmus americana cv.

SURVEY LEGEND

- TRASH RECEPTACLE
- TEAK BENCH
- GAS MANHOLE
- STORM DRAIN MANHOLE
- SAN. SEWER MANHOLE
- TELEPHONE MANHOLE
- ELECTRIC MANHOLE
- UNKNOWN MANHOLE
- GAS METER
- ELECTRIC METER
- WATER METER
- WATER VALVE
- GAS VALVE
- FIRE HYDRANT
- LIGHT POLES
- ELECTRIC POLE
- SIGN
- CLEANOUT
- BOLLARD
- HANDBOX
- IRRIGATION HEAD
- ELECTRIC
- GAS
- STORM DRAIN
- TELEPHONE
- WATER
- TOPOGRAPHIC CONTOUR

Existing Conditions

Washington Square

Independence National Historical Park

Philadelphia, Pennsylvania

Prepared by:

DHM Design

Pressley Associates, Landscape Architects

with RK&K

SOURCES:

1. SURVEY PREPARED BY RK&K ENGINEERS, JUNE 4, 2010.
2. FIELD OBSERVATIONS COMPLETED BY PRESSLEY ASSOCIATES, DECEMBER 2009 & APRIL 2010.
3. TREE IDENTIFICATION BASED ON SURVEY COMPLETED BY THE UNIVERSITY OF PENNSYLVANIA, MORRIS ARBORETUM, URBAN FORESTRY TEAM, AUGUST 6, 2010, UPDATED DECEMBER 20, 2010.
4. INVENTORY OF MEMORIALS, PLAQUES & WAYSIDES BASED ON SURVEY PREPARED BY INDEPENDENCE NATIONAL HISTORICAL PARK, JANUARY 2008.

DRAWN BY: CMB

CHECKED BY: LGM

DATE: SEPTEMBER 2010, REV. FEBRUARY 2011

15 0 30 60

SCALE IN FEET

SHEET	DRAWING NO.
1 of 1	391/105,617

CHAPTER 4

TREATMENT RECOMMENDATIONS

Introduction

Treatment is a physical intervention carried out to achieve a specific goal or objective; many variables influence the selection of the appropriate treatment approach and action. The Cultural Landscape Report for Washington Square is intended to meet a number of diverse objectives, focused primarily on ensuring that this significant landscape is preserved for future generations as an integral component of Independence National Historical Park and the City of Philadelphia. The process of recommending an appropriate treatment approach for the landscape includes the consideration of four philosophical alternatives: preservation, rehabilitation, restoration, and reconstruction based on the *Secretary of the Interior's Standards for the Treatment of Historic Properties*.[1] Of these, rehabilitation is the most consistent with the goals and objectives of the 1996 Independence National Historical Park General Management Plan, as well as the work undertaken by the City of Philadelphia prior to the 2005 Easement and transfer of care and control to the National Park Service. This chapter considers the implications of all four physical treatments as well as a few preservation issues that guide the specific recommendations that follow.

At the crux of this chapter is the assumption that Washington Square is an important historic property and one of the nation's irreplaceable cultural resources worthy of preservation. As discussed in the previous chapters, its significance is derived from its association with the 1682 Penn/Holmes Plan for Philadelphia, as a site for African American gatherings and burials, for its role during the Colonial period including Revolutionary War burials, and for several epochs of significant landscape design from 1816-1957. Washington Square has been continuously maintained as a public city square and civic landscape since the early nineteenth century, and this CLR strives to continue that association in the context of Independence National Historical Park.

Preservation Treatment Considerations

As of this writing, the landscape of Washington Square is in overall good condition, largely due to the extensive rehabilitation work undertaken by the City of Philadelphia in collaboration with the NPS, and completed in 2002. Since then, Washington Square has been maintained by the National Park Service. The Society Hill Civic Association has continued to undertake additional planting, especially flowering plants such as roses, perennials, and annuals, but this work should be more closely coordinated with the NPS and the findings of the Cultural Landscape Report. With the exception of the historic guard houses, Washington Square does not suffer from deferred maintenance. However, given the level of intervention undertaken by the City prior to granting the easement to the NPS, future work on Washington Square should strive to retain the integrity of the historic civic landscape to the greatest extent possible.

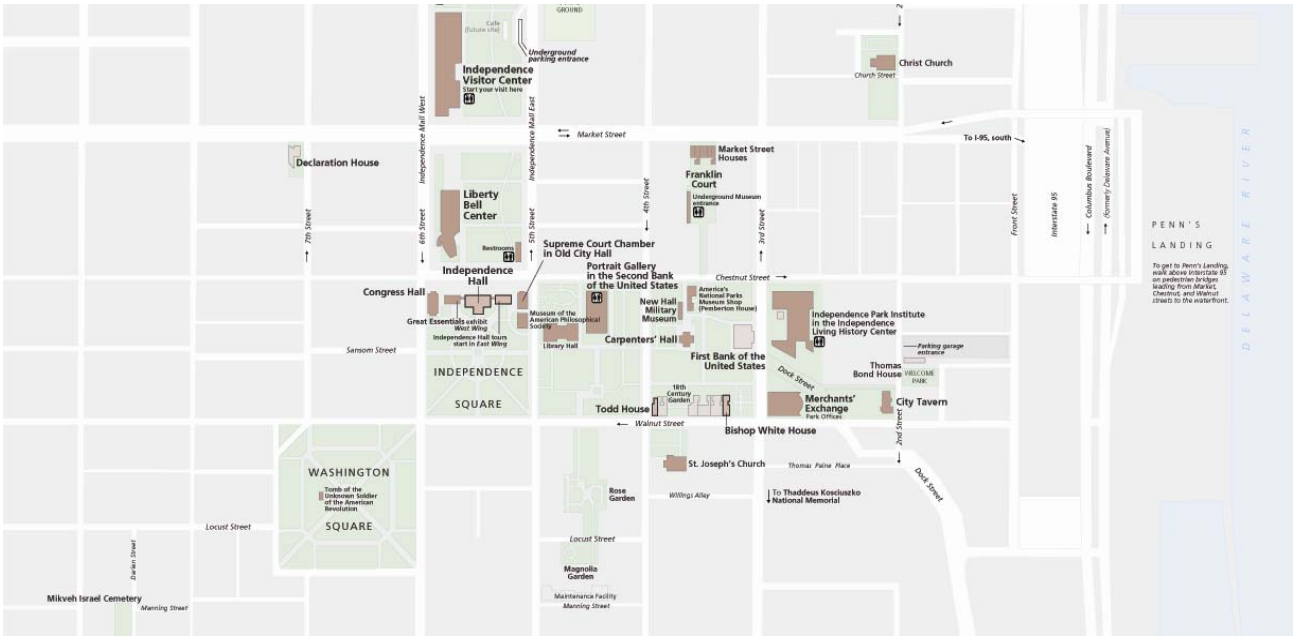


Figure 4.1: *A portion of Independence National Historical Park showing the relationship between Washington and Independence Squares (National Park Service).*

City's Changes to Washington Square

The last major change to Washington Square was completed between 1990 and 2002 by the City of Philadelphia, in order to improve the overall condition of Washington Square prior to the transfer of care and control to the NPS. In this rehabilitation, wholesale replacement of the bluestone paving was accomplished, along with replacement of benches, trash receptacles, new interpretive signage, as well as the removal of dead and hazardous vegetation and the installation of trees and shrubs as part of a new planting plan. Because this work is relatively recent and was coordinated with the National Park Service and the State Historic Preservation Office, there are fortunately very few urgent condition issues such as imminent resource threats or deteriorated features that require immediate attention within the square.

Historic Designations and Compliance

Washington Square is currently listed on the National Register of Historic Places. This designation does mean that the NPS is subject to compliance with Section 106 of the 1966 Historic Preservation Act (36 CFR, Part 800). The Square is also within the boundaries of the Washington Square West Historic District, listed on the Pennsylvania Register of Historic Places, and a component of the Society Hill Historic District, a local Philadelphia historic district. This means that physical work or proposed changes to Washington Square should be coordinated with the requisite review by the State Historic Preservation Office and the Philadelphia Historical Commission.

Transition from City to NPS Stewardship

Washington Square was continuously managed by the City of Philadelphia, often with assistance from a series of local civic groups, for approximately 200 years. As part of Independence National Historical

Park, the square is now one component of a national story related to the founding of the nation, while also retaining its important association and role as a verdant oasis in the Society Hill section Philadelphia. This is further complicated by the changing demographics and land uses bordering the square, as large office buildings once populated by important insurance and publishing companies are now being converted into residential use. This alters both the use of and expectation for Washington Square, since it is becoming the front yard for many adjacent residences rather than a primarily civic space used by workers, visitors, students, etc.



Figure 4.2: *Children playing around the fountain in Washington Square, 2010.*

Historic Character

The existing character of Washington Square largely reflects the 1957 Brumbaugh design, which was rehabilitated by the city between 1990 and 2002. The Memorial to the Unknown Revolutionary War Soldier including the circular pool and fountain and the Colonial Revival perimeter wall were added to the square in 1957 as part of the last significant re-design. The Society Hill Civic Association has also contributed subtle changes to the square in the form of decorative flowering plantings, including roses surrounding the Memorial and annual beds.

Throughout much of its history, Washington Square has been characterized by a simple arrangement of walks/promenades, shade trees and lawn, and furnishings such as benches. Other features, namely walls, light fixtures, sculpture/statuary, memorials, flowering plants, and the existing fountain have changed over the square's 300-year history. The Olmsted Brothers design of 1916-17 was the first to introduce planting areas with shrubs, arranged in informal beds along the perimeter of the square to screen the view of the surrounding streets from within the square. Brumbaugh's plan effectively eliminated that function by introducing a Colonial Revival brick wall around the perimeter, but many of the shrub beds have remained. As the mature shade trees have died, the city and others have replaced some with small ornamental trees such as Flowering Cherries or Dogwoods. These trees provide spring bloom that is appealing to the community, but should be used sparingly, consistent with the historic character of Washington Square, and the historic tree list (see below and Appendix G). For this reason, the treatment approach and recommendations address the goals and objectives for managing the historic character and vegetation of Washington Square.

Archeological Resources

Washington Square is an important archeological resource, which likely covers the entire landscape and is documented in several previous studies. Even though the square has been "disturbed" through numerous re-designs and interventions, there are features below ground that provide important evidence of past uses, events, and lost features. The biggest concern is the known presence of buried human remains related to the use of the square as a Potter's Field and as the site of Revolutionary War burials. These are the most sensitive archeological features, and the density of resources at Washington Square means that every activity that involves digging below six inches (6") in depth must be thoroughly reviewed by an archeologist. Furthermore, NPS should coordinate with the City

of Philadelphia regarding any utility or other work conducted in the adjacent sidewalk, as significant archeological resources may lie below ground there as well.

Maintenance

The characteristics and features of Washington Square require a variety of maintenance skills, varying from arboriculture and turf management to the detailed curatorial care of the Memorial. The square contains complex systems and utilities, including an irrigation system, light fixtures, eternal flame and gas supply, and electricity and the fountain pump and systems, all of which have specific cyclic and routine maintenance needs. The maintenance of Washington Square, like Independence Square, is coordinated by the Independence NHP Facility Management Division, so that priorities for routine work as well as repair/replacement must be balanced in the context of the entire park. At the same time, the residential community surrounding Washington Square expects a high/intensive level of maintenance consistent with a "public garden."

Carrying Capacity

Washington Square has always been an important gathering place for civic events, and that functions remain vital today. The square has hosted annual events such as Veteran's Day and President's Day wreath laying that typically attracts 30-40 people. Juneteenth events have been celebrated in the past, but have been absent from Washington Square since about 2008. These usually draw about 100 participants. In 2010, the Society Hill Civic Association held a very successful fundraising event for about 200 people in Washington Square, so there may be opportunities for the Society to hold future special events.

Many of the comments raised in public forums sponsored by the NPS shortly after they assumed stewardship of Washington Square, suggested expanding the use of Washington Square for special events and the NPS receives periodic requests for large group activities in the square. The National Park Service could establish some guidelines for the use of Washington Square for private events, with an emphasis on non-profit groups and organizations whose mission is compatible with the NPS and where the proposed use does not preclude the enjoyment of the landscape for park visitors.

If this increase is desired, the resulting effect should be evaluated related to the wear and tear on the features of the square, particularly the turf, and the corresponding increase in maintenance required to repair damage or address any issues associated with event use, such as security or trash collection. Therefore, if there is an increase in the number of special events or the number of individuals attending these activities, the NPS will likely need to enhance the park's maintenance capacity by billing charges for landscape restoration to the permittee.


PHOTO OF THE DAY

LAURENCE KESTERSON / Staff Photographer

Young people clobber one another with pillows during "World Pillow Fight Day" in Washington Square Park. The event, which attracted about 100 people, was observed around the world at 3 p.m. Saturday.

Figure 4.3: *"World Pillow Fight Day" in Washington Square, attended by about 100 people in 2010 (Philadelphia Inquirer, 4 April 2010, by Laurence Kesterson, staff photographer).*

Plant Identification

This CLR has identified the existing trees on Washington Square based on a combination of field observation, information provided by the NPS Olmsted Center for Landscape Preservation who prepared the Condition Assessment of Trees in 2007, and the 2010 updated tree inventory by the Morris Arboretum (Appendix F). Additional work may be needed to thoroughly inventory all of the shrubs, perennials and annual plant material contained in the peripheral planting beds.

The Secretary of the Interior's Standards

Documentation of the history and the existing condition of Washington Square identifies features that are extant from the period of significance. The condition of these features and their contribution to the site's historic integrity is a prime consideration for the proposed treatments outlined below. The first task is to explore the various choices of treatments for historical properties as defined by the *Secretary of the Interior's Standards for the Treatment of Historic Properties*.[2]

The *Secretary's Standards* form the benchmark for preservation practice in the United States. The Standards have been a constant framework for preservation practice since 1966, and were codified in federal regulations as 36 CFR Part 800. Prior to the 1990s, the Standards were primarily used for historic buildings, but were revised in 1992-6 to reflect a consistent treatment for entire historic properties, including buildings, structures, sites (landscapes), and objects. This was followed by *Guidelines for the Treatment of Cultural Landscape*s produced by the National Park Service in 1996, which interpret the standards specifically for landscapes.

The *Secretary's Standards* include four distinct approaches that define the extent and intent of physical changes proposed for an historic property. The four treatments are Preservation, Rehabilitation, Restoration, and Reconstruction and are defined as follows:

- **Preservation:** the act or process of applying measures necessary to sustain the existing form, integrity, and material of a historic property, which includes initial stabilization work, where necessary, as well as ongoing preservation maintenance and repair of historic materials and features.
- **Rehabilitation:** the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values.
- **Restoration:** the act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by removing features from other periods in its history and reconstructing missing features from the restoration period.
- **Reconstruction:** the act or process of depicting, by means of new construction, the form, features, and detailing of a non-surviving site, landscape, building, structure, or object for the purpose of replicating its appearance at a specific period of time and in its historic location.

In this order, they range from the least intervention and alteration, increasing in change and corresponding documentation requirements. This chapter explains the impact of each of these treatments relative to the specific goals and objectives of the CLR.

The purpose of this evaluation is to fully illustrate the range of philosophical approaches the NPS could undertake in their role as caretakers of Washington Square. The primary treatment

approach should allow for physical changes necessary to meet the NPS's objectives for the landscape. The treatment decision also addresses regulatory and management considerations, preservation policies and standards, operations and maintenance, and the historical significance and existing conditions of this landscape. In applying the *Secretary's Standards*, it is important to understand that they represent a set of general principles that are neither "technical nor prescriptive, but are intended to promote responsible preservation practices that help protect the nation's irreplaceable cultural resources."[3] Thus, the final recommendations of the CLR for Washington Square are based on the principles of the Standards, applied to the specific site conditions of Washington Square and the management objectives of Independence National Historical Park.



Figure 4.4: *General view of Washington Square, spring 2010 (Pressley Associates).*

The *Guidelines for the Treatment of Cultural Landscapes,* published by the National Park Service in 1996, interpret the Standards specifically for historic landscapes and identify several specific factors to consider when selecting an appropriate treatment for a cultural landscape, many of which are directly applicable to Washington Square:

- Change and continuity
- Relative significance in history
- Integrity and existing physical condition
- Geographical context
- Use
- Archeological resources
- Natural systems
- Management and maintenance
- Interpretation
- Accessibility
- Health and safety considerations

Comparison of Treatment Alternatives

This section explains how each of the four treatments might be applied to Washington Square and summarizes the primary interventions or physical work that would be required for each.

Alternative 1: Preservation

The appropriateness of preservation

When the property's distinctive materials, features, and spaces are essentially extant and thus convey the historic significance without extensive repair or replacement; when depiction at a particular period of time is not appropriate; and when a continuing use does not require additions or extensive alterations, preservation may be considered as a treatment.[4]

Preservation "maximizes the retention of distinctive materials, features, spaces, and relationships" through maintenance and repair of existing features as the property has evolved over time. While protection and stabilization and work are included, the focus of preservation treatment is on retention and maintenance, while "avoiding replacement of intact or repairable historic materials."

Application of preservation as a treatment for Washington Square

This approach would consist of a repair and maintenance strategy for Washington Square as it is currently managed, focused on caring for existing trees and other vegetation, repairing paving and the Memorial, and caring for the existing guard houses without substantial alteration. Non-historic additions, such as the interpretive signs and decorative plantings would remain, although incompatible features that are removed for any reason would not be replaced, or would be replaced with historically appropriate features. Extant historic vegetation that dies would be replaced in kind or with an appropriate species following the vegetation management objectives outlined below. Selected missing (or dead) plants, such as the Moon Tree or the large oak that is, as of this writing, deteriorated and presents a hazardous condition, could be replaced to repair the historic appearance of the landscape.

Future physical work should focus on continued active maintenance to preserve the landscape in its current form, without the addition of non-compatible new features such as inappropriate new plantings, new site features, or other arbitrary changes. Therefore, preservation as a treatment would not allow for alterations to the site to accommodate increased public use, unless those changes were relatively invisible. However, because preservation is synonymous with good maintenance practices, it can also be the treatment of choice before or after more intensive restoration or rehabilitation.

Alternative 2: Rehabilitation

The appropriateness of rehabilitation

When repair and replacement of deteriorated features are necessary; when alterations or additions to the property are planned for a new or continued use; and when its depiction at a particular period of time is not appropriate, rehabilitation may be considered as a treatment.[5]

Rehabilitation is an inclusive treatment that provides for a broad range of interventions to both meet contemporary uses and retain or enhance historic character. This includes the retention and maintenance of existing historic features, selective replacement of missing features, as well as modest new additions to the property provided the overall historic character is not compromised. Like all of the treatments, removal of historic features is not appropriate in the treatment rehabilitation.

Rehabilitation is the only treatment that also allows for the construction of new additions or alterations to meet contemporary uses. In this regard, the new work should be differentiated from the historic features, but should remain compatible in terms of "materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment." In some cases, rehabilitation is chosen when a historic resource is so deteriorated that repair work requires substantial intervention, well beyond what is normally considered appropriate in preservation. Rehabilitation also allows for new construction or additions that, when removed in the future, the "essential form and integrity" of the site would remain unimpaired. Finally, rehabilitation also accommodates a modest amount of replacement of missing historic features in kind, or with a new design that is compatible with the original. Taken together, rehabilitation is the most flexible and accommodating of the four treatments. The Standards for Rehabilitation are included as Appendix H because this treatment is

the most appropriate alternative for Washington Square.

Application of rehabilitation as a treatment for Washington Square

Rehabilitation of Washington Square would focus on retaining and improving the historic character of the landscape, while continuing contemporary uses on the site and improving overall condition. This is a very appropriate treatment and is the treatment used by the City in their last series of construction projects prior to the 2005 easement, which retained much of the character of the Brumbaugh design even though the project included substantial replacement of some features, such as the bluestone paving.

Generally, the treatment rehabilitation combines preservation with limited replacement of historic features and the addition of new features necessary to facilitate current uses. This is distinguished from restoration, discussed below, in that rehabilitation allows for several approaches for the treatment of missing historic features. For Washington Square, lost features primarily include the Colonial Revival light posts and fixtures designed by Brumbaugh as well as selective shade trees that have died both within the square and around the perimeter.

The lily pad fountain, originally designed by Brumbaugh, appears to have been omitted from the construction project, but was added later as a larger scale replication. This feature presents a challenge for the rehabilitation standards; although it was designed as part of the Brumbaugh improvements, it was not installed at the time the other improvements were made. In an ideal interpretation of the standards, the fountain would not be rebuilt, and instead, a simple jet would provide a water spout in the center circular pool as exists today.

Changing the composition of the herbaceous plantings, shrubs and trees to better reflect the square's historic character would be an acceptable change under rehabilitation. However, there is little documentary evidence about the character of the vegetated perimeter of the square, other than the informal groupings of shrubs indicated on the Olmsted Brothers plan. That said, there is no evidence to support widespread use of showy flowering shrubs, perennials, or annuals.

While rehabilitation provides the greatest flexibility for new additions to an historic property, it is important to keep the overall integrity of the landscape in mind. The previous rehabilitation undertaken by the City did make changes to the square including replacing paving and light fixtures, so that the integrity of the landscape has already been affected; these improvements were thoroughly reviewed by the NPS and the Philadelphia Historical Commission. With this in mind, a rehabilitation treatment should strive to maintain or enhance the current level of integrity without the removal or alteration of extant historic features.

Alternative 3: Restoration

The appropriateness of restoration

When the property's design, architectural, or historical significance during a particular period of time outweighs the potential loss of extant materials, features, spaces, and finishes that characterize other historical periods; when there is substantial physical evidence for the work; and when contemporary alterations and additions are not planned, Restoration may be considered as a treatment. Prior to undertaking work, a particular period of time, i.e., the restoration period, should be selected and justified, and a documentation plan for restoration developed.[6]

Restoration illustrates a specific earlier historic period by removing non-historic features, replacing missing features from the restoration period, and retaining extant historic features. Because the intent of restoration is to authentically illustrate the historic property during a specific period, the

replacement of missing historic features should be accomplished based on substantial documentary and physical evidence. Conjectural features or anachronistic combinations of features that never existed together, which would imply a false history, should be avoided. The restoration period should also inform the use of the property. As with each of the approaches, designs that were never executed historically should not be constructed.

Application of restoration as a treatment for Washington Square

1957 Brumbaugh Plan

The most appropriate restoration date for Washington Square would likely be the close of the implementation of the Brumbaugh and Sears design, circa 1957, which is similar the appearance of the landscape today. Restoration to this date would retain the greatest amount of existing historic features, particularly the Memorial. This would require removing non-historic additions to the square such as light fixtures, paving, signage, and vegetation. The Brumbaugh and Sears plans, as implemented would form the basis for the physical work, so design features that were never constructed, such as the path directly behind the Memorial or the lily pad fountain would not be replaced. This treatment approach would retain much of the overall configuration of the landscape, particularly walks, perimeter wall, fountain, memorial, shade trees over lawn, and the two guard houses. The restroom building, which appears to have existed between about 1898 and 1952, would not be replaced.

Extensive documentation of Washington Square will ensure minimal conjecture in the restoration. Readily available historic documentation includes the original design plans by Brumbaugh with planting recommendations by Sears and historic photographs. Even with these records, however, detailed documentation does not exist for the entire site, so that decisions regarding alterations to areas with minimal documentation should be very limited. However, a restoration approach would recover some characteristics of the landscape that were altered during the most recent rehabilitation. A restoration approach would limit the NPS's ability to add features to the property to support the mission of the park, such as interpretive signage.

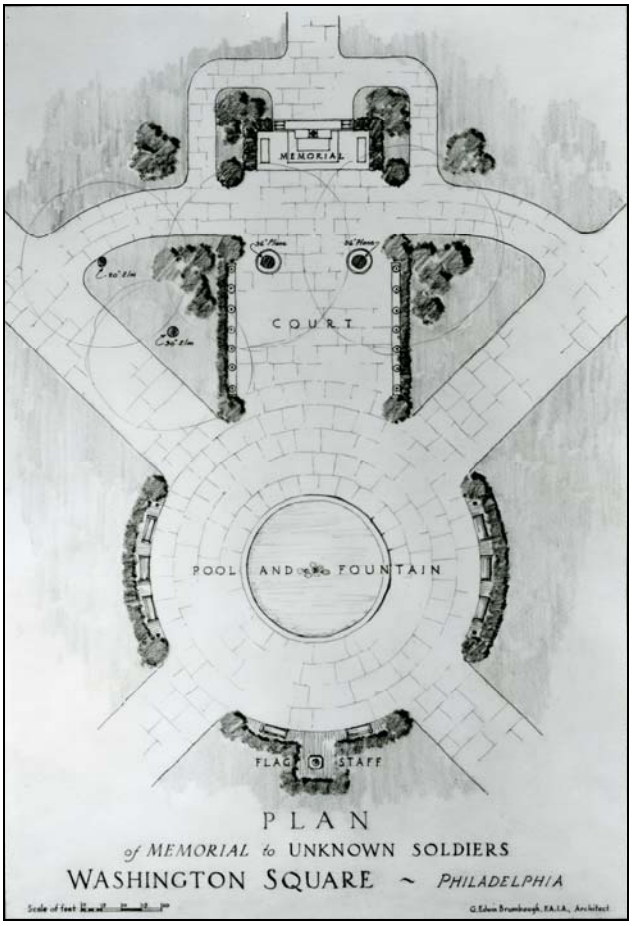


Figure 4.5: *1952 drawing of the fountain and memorial by Edwin Brumbaugh, which was implemented in a slightly different configuration with a circular fountain, flag court representing the thirteen colonies, and without a path behind the memorial (Courtesy, The Winterthur Library: Joseph Downs Collection of Manuscripts and Printed Ephemera).*

1916 Olmsted Brothers Plan

Restoration of the earlier 1916 Olmsted Brothers design for Washington Square is a viable alternative, although it would have a much greater impact on the overall character of the landscape. The arrangement of walks in the Olmsted plan in similar to that of Brumbaugh's design with strong diagonal connections from each corner, intersecting at a circular feature in the center, with additional walks parallel to each of the four streets. However, restoration of the Olmsted design would require removing the features introduced after 1916, such as those added by the recent rehabilitation as well as the Brumbaugh and Sears work. Features to be removed would include the fountain, Memorial to the Unknown Revolutionary War Soldier, the Colonial Revival perimeter wall and the two guard houses.

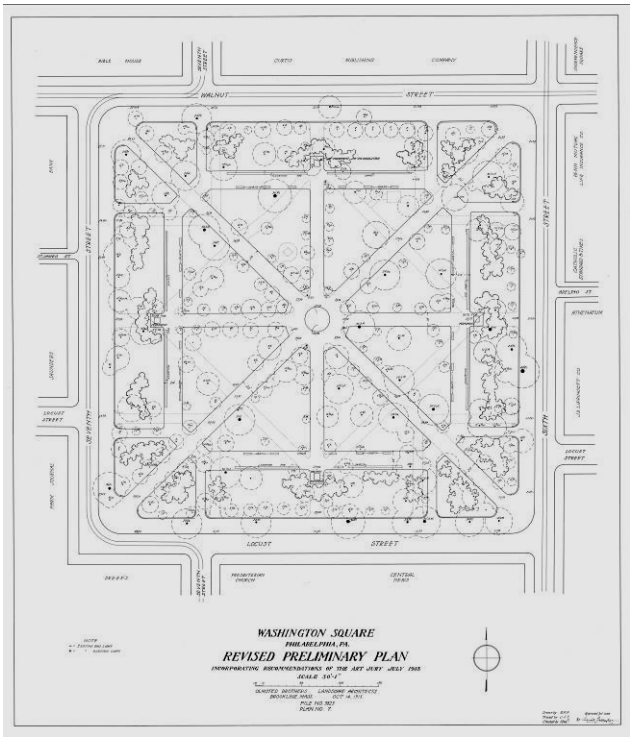


Figure 4.6: *Revised Preliminary Plan by the Olmsted Brothers, Landscape Architects, 1913 (NPS, Olmsted NHS)*

Restoration also requires the replacement of missing historic features. The Olmsted Brothers plan also showed locations for four memorials at the terminus of the cross-axis, although it is not entirely clear if this component of the design was ever implemented. The restroom building, which shows as a dotted outline (to be removed) actually remained in Washington Square, so this alternative would allow for the construction of that feature. Finally, the Olmsted plan included informal shrub plantings at the entrances and around the perimeter, presumably to screen views of the adjacent streets. Since planting plans or plant lists have not been found, additional comparative research would be required to determine plantings typical of Olmsted Brothers public work in the northeast at that time.

While the Olmsted plan is unequivocally significant, removal of the features associated with the Brumbaugh design, most notably the Memorial to the Unknown Revolutionary War Soldier, the fountain and pool, and the Colonial Revival perimeter wall would not be consistent with current preservation practice, since those features have significance in their own right. This alternative is therefore not recommended.

1816 Bridport Plan

Restoration of the 1816 Bridport plan, as implemented and illustrated in the 1842 survey of Washington Square, would change the overall layout of the landscape to its nineteenth century circular configuration. This plan contained the strong diagonal axes common to the Olmsted and Brumbaugh design, albeit with a single entrance at each corner. Two concentric circular paths are located around the perimeter and around the center of the square; additional circles form the intersection of the outer circle with the diagonal axis. This plan also featured a prominent memorial in the landscaped center of the square.

Restoration of the Bridport design would have a significant effect on the overall character of the

square, reducing the paved area with a greater emphasis on open lawn and trees. There is information from the 1842 survey (see Appendix G) to replicate the tree planting, but much of the landscape would be altered by the restoration of this design. For this reason, removal of the extant features associated with the Olmsted and Brumbaugh designs would not be consistent with current preservation practice, since those later features have significance in their own right, so this alternative is not recommended.

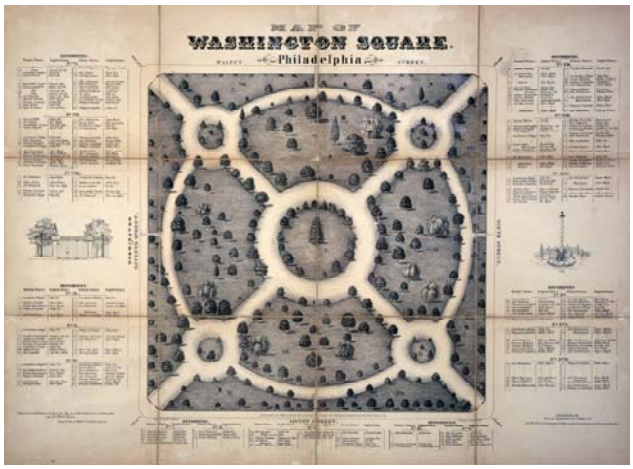


Figure 4.7: *1842 survey showing implemented Bridport design for Washington Square (The Historical Society of Pennsylvania).*

Alternative 4: Reconstruction

Reconstruction as a treatment is rarely used for entire historic properties including cultural landscapes, except in cases where the educational value of re-building the lost resource justifies this approach.

The appropriateness of reconstruction

Reconstruction is "used to depict vanished or non-surviving portions of a property when documentary and physical evidence is available to permit accurate reconstruction with minimal conjecture." Reconstruction of a property should include efforts to preserve any remaining historic material, features, and spatial relationships, as their accurate representation is the ultimate goal of reconstruction. Reconstruction must be clearly identified as a contemporary re-creation, and as with each of the approaches, designs that were never executed historically should not be constructed.

For properties managed by the National Park Service, reconstruction of a lost landscape is always a last-resort measure for addressing a management objective.[7] The reconstructed landscape should full-scale and on the original site, should not simulate a damaged or ruined cultural landscape, or constitute a general representation of a "typical" landscape such as a kitchen garden or period garden that never existed historically.[8]

Application of reconstruction as a treatment for Washington Square

The fourth alternative, reconstruction, is not considered an appropriate treatment for this landscape because the historic property is still extant. Since Washington Square still remains, the treatment reconstruction would only be applicable if it represented the re-building of an earlier lost landscape such as the eighteenth century Potter's Field or pasture land, or the original Penn/Holmes Plan. There does not appear to be sufficient documentary evidence to reconstruct one of these vanished landscapes from an early period, so that substantial archeological evidence would be required to support a reconstruction. This would recreate a lost landscape that while interesting from a historically perspective, does not meet the contemporary needs of the community as well as requiring the removal of later layers that have significance in their own right. For these reasons, reconstruction is not an appropriate treatment for Washington Square.

Treatment Recommendations

Given the characteristics of the site, the goals and objectives of Independence National Historical Park, and the current use of Washington Square, the most logical treatment choice is rehabilitation. General, site-specific recommendations are illustrated in the Treatment Plan at the end of this chapter, and described below.

Overview

With a few exceptions, Washington Square is in overall good condition, with very few urgent issues that require intervention, repair, alteration, or new additions. Therefore, the recommendations included here focus primarily on ensuring that the square remains in good condition and that it continues to convey the features, materials, and spaces that give it significance and historic integrity.

Spatial Organization

The spatial organization of Washington Square is formed by a combination of features and characteristics, including the perimeter wall, bluestone walks, the Memorial landscape, and vegetation. Retention of these features will ensure that the spatial organization and views within, into and out of Washington Square are preserved.

Circulation

Bluestone Walks

The existing bluestone walks were installed by the City of Philadelphia, to replace existing historic bluestone associated with the Olmsted and Brumbaugh designs. Bluestone [flagstone] walks have been a continuous feature on Washington Square beginning with the Bridport plan, and should be preserved and maintained in good condition. The bluestone curbing is damaged at many corners most likely due to snow removal, and should be repaired as soon as possible to avoid further deterioration.



Figure 4.8: *Damaged bluestone curbing at the southeast corner of the square (Pressley Associates, 2010).*



Figure 4.9: *Existing brick sidewalk and bollards along Walnut Street (Pressley Associates, 2010).*

Perimeter Sidewalks

Existing brick sidewalks with bluestone flares should be maintained in good condition. Generally, the brick sidewalks are in good condition, but there are a few raised, sunken and missing bricks. In several places, the sidewalk and perimeter wall is vulnerable to damage by vehicles, especially at the intersections of West Washington Square/Locust Street and South Washington Square/Seventh Street.

In these two locations, additional bollards should be added to protect the sidewalk and wall from future vehicular damage. Additional bollards may also be necessary to protect existing street trees and missing trees in the perimeter sidewalks should be replaced.

Triangle at 7th & Walnut

The triangle is a functional traffic island, but does not visually convey that it is part of Washington Square. The greatest need for the triangle is to rehabilitate it to visually convey that it is part of Washington Square and to improve the clutter of features along the sidewalk. This includes re-paving the existing concrete sidewalks in brick to match the sidewalks along West Washington Square, Walnut Street and Seventh Street Cutoff, the addition and re-location of bike racks in appropriate locations, and the removal of the existing newspaper boxes, which likely require a right of way permit to be located in a national park. Suggested improvements to the triangle are shown on Figure 4.10.

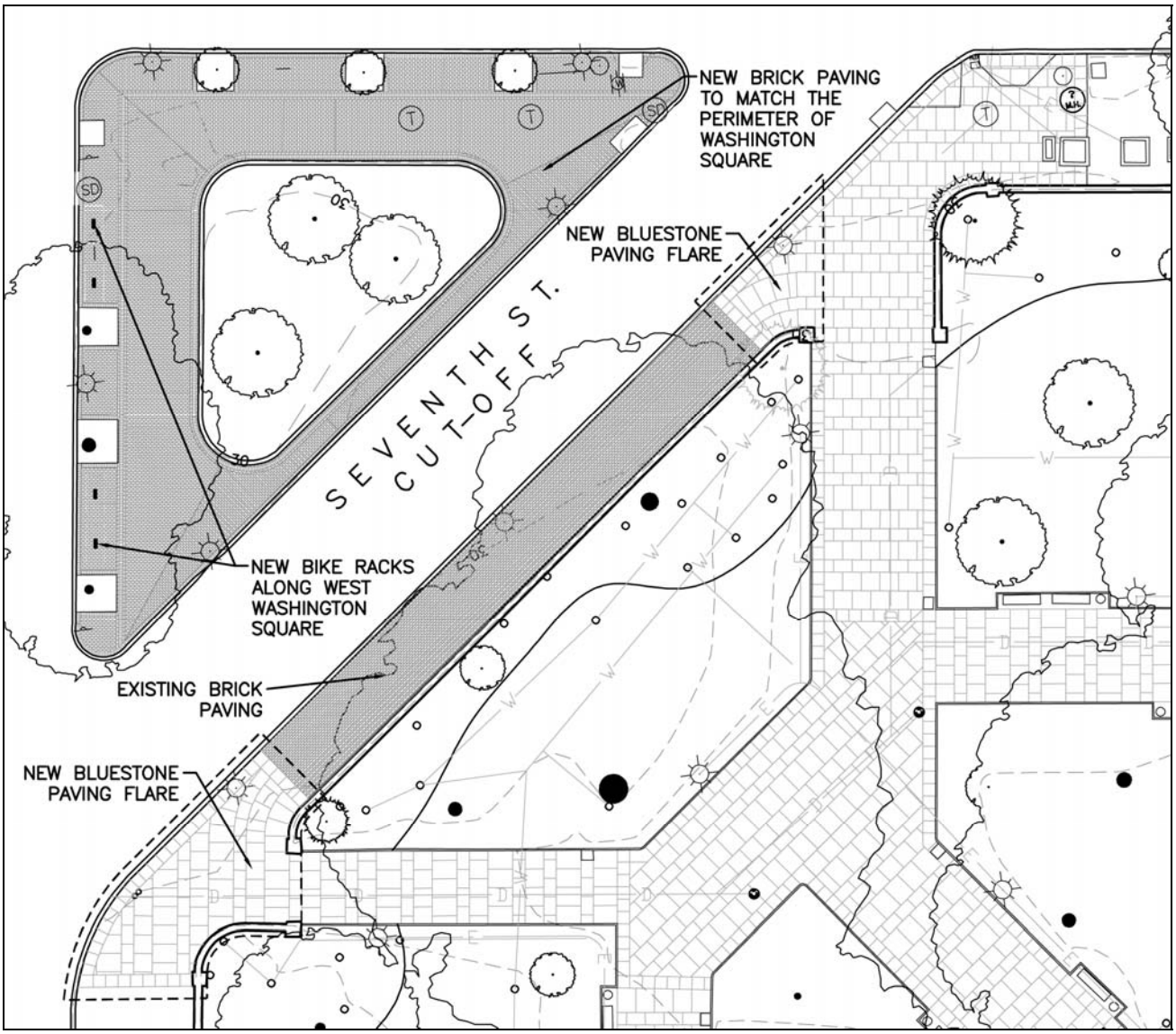


Figure 4.10: *Proposed re-paving of the triangle and sidewalks bordered by West Washington Square, Walnut Street, and the Seventh Street cut-off, showing the placement of additional bike racks (Pressley Associates).*



Figure 4.11: *Bicycle and motorcycle parked and locked on the triangle at Seventh and Walnut Streets (Pressley Associates, 2010).*

Vegetation

Trees

Shade trees have been a prominent feature of the Washington Square landscape since the early nineteenth century. A complete analysis of trees recorded in historic documents is included as Appendix G. Retention of a diverse collection of large specimen shade trees is essential to the overall historic character of Washington Square and should be perpetuated.

Several of the tree species currently located in Washington Square are known to have existed early in the period of significance, including many that were introduced into Washington Square shortly after they were first classified (named) or introduced into cultivation. This is an important part of Washington Square's history and its significance both as an urban square and as a diverse collection of urban trees. Therefore, the preservation of the tree collection, particularly historic species, is a priority for both retention and as replacement species. A few species of small [ornamental] flowering trees are recorded in historic documents within the period of significance, so there is precedence for some limited use, provided the overall character of shade trees over lawn is retained. Also listed in historic documents, particularly during the first quarter of the nineteenth century, are several evergreen or coniferous trees which were historically mixed with the deciduous shade trees to create a very diverse plant collection that demonstrated Philadelphia's importance to the history of horticulture in the U.S.

General guidelines for tree management

- Preserve and perpetuate a diverse collection of specimen trees that constitute a wide variety of native shade trees as well as trees introduced into cultivation by the period of significance, consistent with the importance of Washington Square as a physical illustration of Philadelphia's important role in the development of ornamental horticulture in the U.S. and as an urban arboretum.

- Retain, preserve, and perpetuate a light shade canopy of shade trees over the grass panels in the square based on the list of recommended species (below), which is primarily derived from the analysis of tree species in historic documents (Appendix G) and which includes those species that will provide a sustainable tree collection over the long term.

- Highly invasive species (e.g. Norway Maple, Tree of Heaven) are not recommended even if they occurred in Washington Square historically. A few species are not recommended because they are highly vulnerable to disease (Scotch Pine) or outside their normal geographic range (Pond Pine). These are noted as endnotes on Table 4.1.

- As trees die, they should be replaced with the following alternative approaches: a.) in kind (same species), b.) with another species from the historic list of trees (Table 4.1 below), or c.) with a new species of shade tree that enhances the collection and furthers the role of Washington Square as an urban arboretum. The choice of one

of these three alternatives depends on whether or not the tree species to be removed exists as another specimen in the square so that a majority of the historic species is retained. Consultation with the park's Cultural Landscape Architect should be undertaken related to the selection of trees to be planted in Washington Square.

- There are a few noteworthy species missing from Washington Square that would greatly enhance its character and visibility as a historic landscape. If feasible given the urban conditions, the NPS should consider adding a Weeping Willow, American Beech, Weeping Larch and other distinctive trees from Table 4.1 to enhance the diversity of species.

- New trees to be introduced into Washington Square should be carefully placed throughout the turf areas to maintain the light shade canopy and considering the existing and potential root zone so that the tree collection is not too crowded.

- Limit the planting of flowering trees within the rectangular and triangular grass panels such as Crab Apples and Flowering Cherry. Small sustainable native trees such as American Holly, Redbud, Franklinia, Shadblow, or Fringetree are appropriate in the existing shrub beds along the periphery of the square. The diversity of small evergreen trees could be expanded beyond American Holly. The Cherry and Crabapple recommended below are listed on historic documents and every effort should be made to perpetuate the historic species rather than introducing dense plantings of showy cultivars that detract from the serene character of the civic landscape.

- Based on the analysis of historic tree composition, it is recommended that small flowering trees be used sparingly, constituting no more than 10-25% of the overall tree composition and that the trees used represent a diversity of species and character, rather than large groupings of the same species.

- The existing Moon Tree (*Platanus x acerifolia)* should be replaced by a clone currently being cultivated by the Arnold Arboretum or the Morris Arboretum. When the new tree is planted, protective fencing should be installed.

- The park should consider the addition of mulched tree circles around the trunk of all specimen trees in Washington Square. This should be carefully implemented in consultation with the park's Cultural Landscape Architect to ensure that an appropriate mulch type, depth, and diameter is installed and maintained, and that mulch is not piled against the trunk.

- The addition of nut trees (Pecan, Hickory, etc.) should be done toward the center of the turf areas, rather than along pedestrian ways to avoid nuts dropping on the paved walks and presenting obstacles for pedestrians.

- Develop interpretive/education materials related to the horticultural history of Washington Square including a.) a tree tagging program using a non-invasive label; tags corresponding to the period of introduction would communicate the history of Washington Square's tree collection; b.) web-based tree inventory and information; and c.) interpretive waysides that discuss the importance of Washington Square as an urban arboretum.

- Some of the trees in the historic list below (Table 4.1) present maintenance challenges or are not really hardy in urban conditions. Therefore, the final selection of replacement trees off of this list should be done in consultation with the park's Cultural Landscape Architect.

Trees listed in Table 4.1 below are consolidated from the analysis in Appendix G, reflecting the current nomenclature for each species. Species in bold currently exist in Washington Square.

Table 4.1: List of Trees recorded for Washington Square during the period of significance (1816-1957)

Deciduous Trees	
Acer negundo	Box Elder
Acer nigrum	Black Maple
Acer pennsylvanicum	Striped Maple
Acer platanoides	**Norway Maple**[9]
Acer pseudoplatanus	**Sycamore Maple**
Acer rubrum	**Red Maple**
Acer saccharum	**Sugar Maple**
Acer saccharinum	Silver Maple
Aesculus flava	Yellow Buckeye
Aesculus glabra	Ohio Buckeye
Aesculus hippocastanum	**Horse Chestnut**
Aesculus pavia	Red Buckeye
Ailanthus altissima	Tree of Heaven[10]
Amelanchier canadensis	**Shadblow, Serviceberry**
Asimina triloba	Common Pawpaw
Betula lenta	Black or Sweet Birch
Betula nigra	River Birch
Betula populifolia	Gray Birch
Broussonetia papyrifera	Paper Mulberry
Carpinus caroliniana	American Hornbeam
Carya glabra	Pignut Hickory
Carya illinoinensis	Pecan
Carya ovata	Shagbark Hickory
Castanea dentata	**American Chestnut**[11]
Castanea sativa	Spanish Chestnut
Catalpa bignoniodes	Southern Catalpa
Celtis occidentalis	**Hackberry**
Celtis cerasifera[12]	Xiao Guo Po
Cercis canadensis	**Redbud**
Chionanthus virginicus	White Fringetree
Cladrastis kentukea	**Yellowwood**
Cornus florida	**Flowering Dogwood**
Cornus mas	**Cornelian Cherry**
Crataegus phaenopyrum	**Washington Thorn**
Diospyros virginiana	Common Persimmon
Euonymus europaes	Spindle Tree
Fagus grandifolia	American Beech
Franklinia alatamaha	**Franklinia**
Fraxinus americana	**White Ash**
Fraxinus excelsior	European Ash
Fraxinus pennsylvanica	Green Ash
Fraxinus nigra	Black Ash
Gingko biloba	**Gingko**
Gleditsia triacanthos	**Honey Locust**[13]
Gymnocladus dioicus	**Kentucky Coffee Tree**
Halesia carolina	Carolina Siverbell
Juglans cinera	Butternut, White Walnut
Koelreuteria sp.	Goldenraintree[14]
Laburnum sp.	Goldenchain Tree[15]
Liquidambar syraciflua	**Sweetgum**
Liriodendron tulipifera	**Tulip Tree**
Magnolia acuminate	Cucumber Tree
Magnolia grandiflora	Southern Magnolia
Magnolia macrophylla	Bigleaf Magnolia
Magnolia x soulangiana	**Saucer Magnolia**
Magnolia tripetala	Umbrella Magnolia
Magnolia virginiana	**Sweetbay Magnolia**
Malus coronaria	Sweet Crabapple
Nyssa sylvatica	**Black Gum**
Ostrya virginiana	American Hophornbeam
Oxydendren arboretum	Sourwood, Sorrel Tree
Platanus x acerifolia	**London Plane Tree**
Platanus occidentalis	Sycamore
Populus balsamifera	Balsam of Gilead
Populus nigra	Black Poplar
Populus x Canadensis	Carolina Poplar
Populus nigra 'Italica'	Lombardy Poplar
Populus tremuloides	Aspen
Prunus japonica var. *multiplex*	Japanese Double Bush-cherry
Prunus mahaleb	Mahaleb Cherry
Prunus pensylvanica	Pin Cherry
Prunus virginiana	Chokecherry
Quercus alba	White Oak
Quercus bicolor	**Swamp White Oak**
Quercus falcata	Spanish Oak
Quercus laevis	American Turkey Oak[16]
Quercus macrocarpa	Bur Oak

Quercus marilandica	Black Jack Oak
Quercus montana	Chestnut Oak
Quercus muehlenbergii	Yellow Oak
Quercus palustris	Pin Oak
Quercus phellos	Willow Oak
Quercus robur	English Oak
Quercus rubra	**Red Oak**
Quercus suber	Cork Bark Oak
Quercus velutina	**Black Oak**
Robinia pseudoacadia	Black Locust
Salix babylonica	Weeping Willow
Sassafras albidum	Sassafras
Sorbus americana	Mountain Ash[17]
Tilia americana	**American Linden**
Tilia x europa	European Linden
Tilia platyphyllos	Large Leaf Linden
Tilia tomentosa	**Silver Linden**
Ulmus americana	American Elm[18]
Ulmus rubra	Slippery Elm
Ulmus parviflora	Chinese Elm
Ulmus procera	English Elm

Evergreen and Coniferous Trees

Abies balsamea	Balsam Fir
Cupressus sp.	Cypress[19]
Ilex opaca	American Holly
Juniperus virginiana	Eastern Red Cedar
Larix decidua 'Pendula'	Weeping Larch
Larix larcina	American Larch
Picea abies	Norway Spruce
Pinus palustris	Longleaf Pine[20]
Pinus serotina	Pond Pine[21]
Pinus strobus	White Pine
Pinus sylvestris	Scotch Pine[22]
Taxodium distichum	**Bald Cypress**
Thuja occidentalis	American Arborvitae
Tsuga canadensis	Eastern Hemlock[23]

Shrubs and Herbaceous Planting

Heavily planted shrub beds are a relatively recent feature on Washington Square. The Olmsted Brothers plan and improvements made in the early twentieth century appear to be the first to introduce shrub beds – primarily at the diagonal entrances, along the perimeter to shield the view of the street, with shrubs added by Brumbaugh surrounding the Memorial and fountain plaza (discussed below). Unfortunately, planting plans and detailed lists have not been found related to the Olmsted Brothers design. The 1957 Colonial Revival wall by Brumbaugh effectively eliminated the need for the shrub edge for visual screening, but there is evidence that scattered shrub planting did continue after the wall was constructed.

For these reasons, retention of a modest shrub planting bed along the perimeter of Washington Square is appropriate within the context of the treatment rehabilitation. The plant collection within these beds should be visually subservient to the overall character of the square, composed of sustainable shrub species and limited herbaceous plants consistent with the period of significance. Shrubs and herbaceous plants listed on historic documents are noted below. A few historic species, namely Japanese Barberry, Winged Euonymus, and Burning Bush are not recommended because of their invasive qualities.

Since no plant list has been found for the Olmsted Brothers plan, the plant list below (Table 4.2 and 4.3) reflects shrubs and herbaceous plants identified in the Brumbaugh plans.

If desired for aesthetic or maintenance reasons, some additional infill planting of shrubs or herbaceous perennial plant material may be appropriate to fill in shrub beds and reduce the visual presence of mulch. Care should be taken to choose herbaceous material that is easy to maintain, visually appealing during three seasons (spring, summer, fall), and which does not contain showy flowers that detract from the serene and dignified setting. For example, a palette of plants that emphasizes a naturalistic placement of woodland plants is an appropriate approach to the perimeter beds.

Table 4.2: Shrubs noted in historic documents

Abelia grandiflora	Glossy Abelia
Acanthopanax sieboldianus	Aralia
Amorpha fruticosa	Indigobush
Aronia melanocarpa	Black Chokeberry
Berberis thunbergii	Japanese Barberry[24]
Deutzia gracilis	Slender Deutzia
Eleagnus angustifolia	Russian Olive
Euonymus alatus	Winged Euonymous[25]
Euonymus atropurpureus	Burningbush
Ilex crenata	Japanese Holly
Ilex crenata 'Bullata'	Bullata Japanese Holly
Kalmia latifolia	Mountain Laurel
Ligustrum lucidum	Glossy Privet
Ligustrum ovalifolium	Oval-leafed Privet
Ligurstrum obtusifolium var. *regelianum*	Regelianum Privet
Lonicera sp.	Bush Honeysuckle[26]
Prunus triloba var. multiplex	Flowering Almond
Rhodotypos scandens	Black Jetbead
Rosa rugosa	Rugosa Rose
Viburnum dilatatum	Linden Viburnum
Viburnum prunifolium	Black Haw
Weigelia florida	Weigelia

Table 4.3: Herbaceous plants noted in historic documents

Hedera helix	English Ivy
Pachysandra terminalis	Pachysandra
Vinca minor	Myrtle

Table 4.4: Additional recommended shrubs

Aesculus parviflora	Bottlebrush Buckeye
Aronia arbutifolia	Red Chokeberry
Hydrangea quercifolia	Oak Leaf Hydrangea
Ilex glabra	Winterberry
Viburnum cassinoides	Witherod Viburnum
Viburnum dentatum	Arrowwood Viburnum
Viburnum lentago	Nannyberry
Xanthoriza simplicissima	Yellowroot

Annual Planting

There is no historical evidence of bedding out or widespread use of annual plantings in Washington Square in the way urban Victorian gardens, such as Boston's Public Garden, were treated. While the introduction of flowers into the square may be desired by many of the surrounding residential users, treatment of the vegetation should focus on maintaining the tree canopy and turf, with selective shrub planting in existing beds as discussed above. Significant annual plantings should be discouraged because they are not compatible with the historic character of the square and they require extensive maintenance. Volunteer planting projects should be coordinated with the park's Cultural Landscape Architect through the development of a seasonal work plan that is approved in advance of implementation and compatible with the recommendations of this CLR.

Turf

Retention of a green carpet of turf grass is critical to the character of Washington Square. This will require a program to regularly monitor the soil conditions, irrigation system and recovery of the grass after special events, with the addition of periodic seasonal feeding and over-seeding to retain a healthy grass cover. Soil fertility should be maintained based on regular testing and following the recommendations of the 2010 soil report from the Morris Arboretum. Reseeding should involve the use of appropriate seed mixtures for soil and light conditions. Treatment of the grass should also be considered in the context of the health and condition of the existing shade tree collection to ensure the health and well-being of both the trees and grass. Turf grass maintenance could also become a focus of the volunteer program.

Planting at the Memorial to the Unknown Revolutionary War Soldier

Plans completed in 1956 by Thomas W. Sears, Landscape Architect and G. Edwin Brumbaugh for the "Memorial to Unknown Soldier of the Continental Army, Washington Square" show a very simple planting of a two foot (2′) high evergreen privet hedge surrounding the circular fountain plaza and the flag court, with five foot (5′) high specimen privet or American Holly located at the each path intersections. Larger (8′ high) specimen American Holly are shown flanking the rear corners of the Memorial wall, along with a six foot (6′) high American Holly hedge on either side of the Memorial and a Privet hedge on either side of the flag court. This plan also shows an intersecting path at the rear of the Memorial. The most important information is that the original design intent for the landscape surrounding the Memorial was a simple, but dense, evergreen hedge with vertical specimens at key locations.

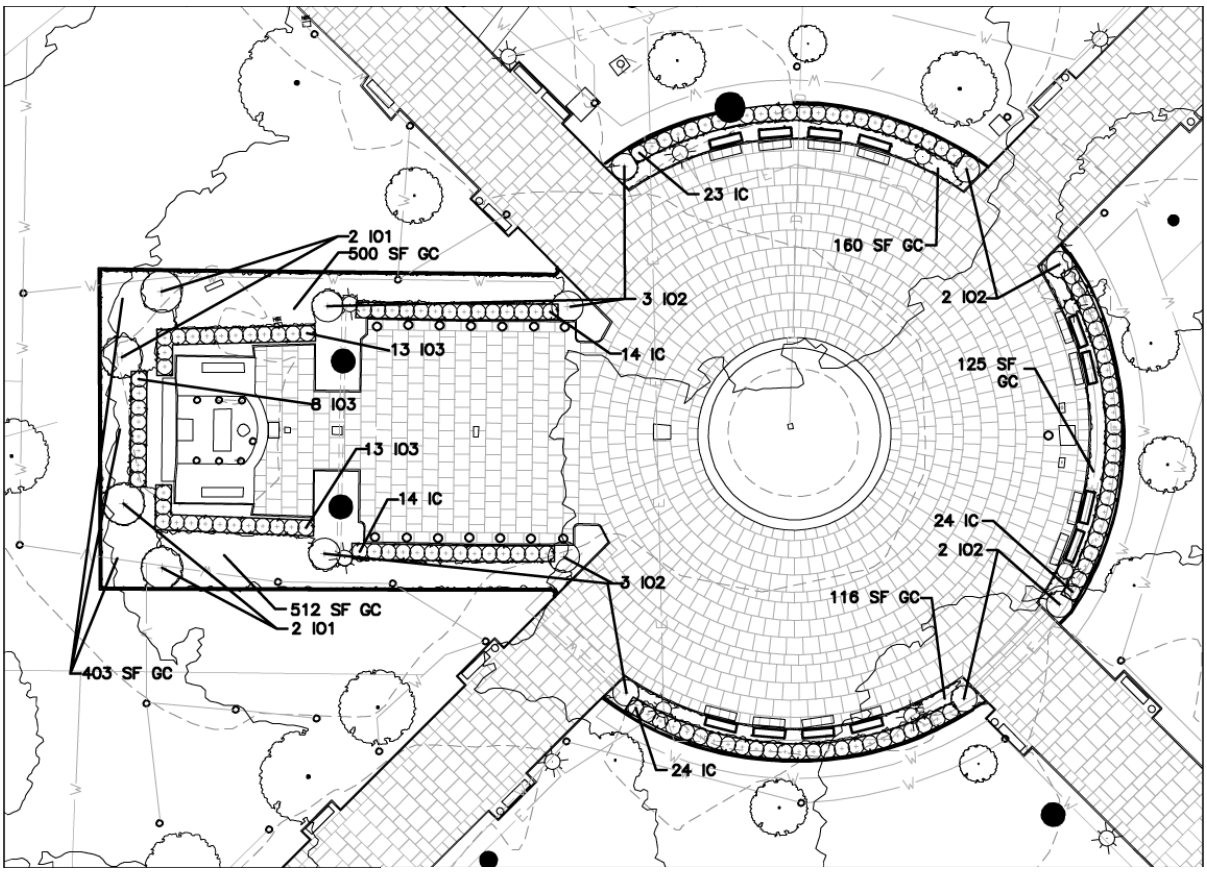


Figure 4.12: *Conceptual planting plan for the rehabilitation of the memorial including the outside of the circular plaza, which adapts the Brumbaugh design to current conditions (Pressley Associates).*

PLANT SCHEDULE

Shrubs

SYMBOL	QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	SPACING	COMMENTS
IC	100	Ilex crenata	Japanese Holly Hedge	sheared at 2'–3' ht.	3' O.C.	CG
I01	4	Ilex opaca	Specimen American Holly	maintained at 8–10' ht.	A.I.	CG
I02	10	Ilex opaca	Specimen American Holly	maintained at 5–6' ht.	A.I.	CG
I03	34	Ilex opaca	American Holly Hedge	maintained at 4–6' ht.	3. O.C.	CG

Groundcovers

SYMBOL	QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	SPACING	COMMENTS
GC	1,816 SF	Vinca minor OR Pachysandra terminalis	Groundcover of Vinca or Pachyandra	4" plug	12" O.C.	CG

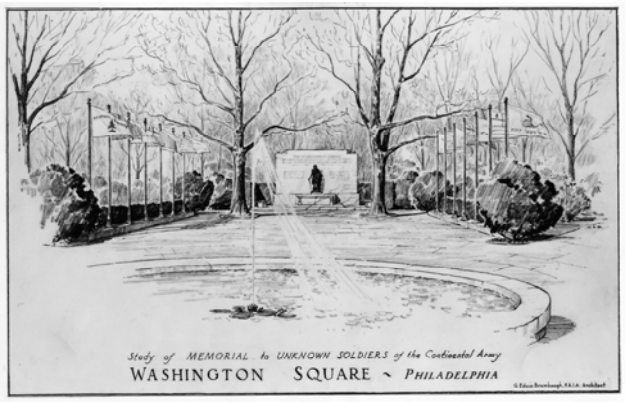


Figure 4.13: *Study for the Memorial to Unknown Soldiers of the Continental Army, Washington Square, Philadelphia by Brumbaugh showing the original concept for planting surrounding the flag court (Courtesy, The Winterthur Library: Joseph Downs Collection of Manuscripts and Printed Ephemera).*



Figure 4.14: *Existing planting of Inkberry and roses around the memorial (Pressley Associates, 2009).*

The existing Japanese Holly, Inkberry (*Ilex glabra*), roses, and other flowering plants that comprise the beds surrounding the flag court and the Memorial proper, deviate somewhat from the original design. While seasonal vegetation color may be desired by some park users, the NPS should consider re-establishing a more formal and simple presentation surrounding the memorial, consistent with the original design as illustrated above.



Figure 4.15: *Existing hedge, bluestone curb, and grass on the outside of the fountain plaza (Pressley Associates, 2009).*

The existing Japanese Holly hedge surrounding the fountain plaza achieves the original intent in part; it is higher than originally recommended and lacks the vertical specimens at each walk intersection. It is also maintained in a rounded form rather than sheared as a straight hedge.

Figure 4.12 shows a proposed rehabilitation of the planting around the Memorial, with a specific focus on an clipped hedge at two heights surrounding the circular fountain plaza, flag court, and Memorial proper, with American Holly specimens providing a vertical demarcation at each path intersection, corners of the flag court and flanking the corners of the Memorial. Japanese Holly (*Ilex crenata*) is recommended rather than privet because it currently exists and provides an evergreen backdrop.

The conceptual rehabilitation planting plan recommends the replacement of existing Japanese Holly (*Ilex crenata*) only after an attempt is made to prune the existing shrubs to reduce their height to two to three feet. Should the plants not respond well to pruning replacement may be necessary.

Site Systems & Furnishings

Lampposts

The existing light fixtures are not historic and were added by the City of Philadelphia during the most recent rehabilitation. The overall character of the lamppost and heads is larger and bulkier than the original Colonial Revival fixtures designed by G. Edwin Brumbaugh, which had a longer and narrower profile so the current lights appear awkward in the landscape.

While the fixtures are in relatively good condition, there is peeling paint on many of the lamppost bases and the quality of the light is harsh. Wholesale replacement of these features should be undertaken at the point when at least 25% are deteriorated. Further study will be necessary to re-design the feature and determine whether or not a new lantern can be fabricated or a completely new fixture is required. Most adapted historic fixtures use metal halide lights, but the City of Boston is currently evaluating L.E.D. lights for the historic fixtures on Boston Common. The goal of the replacement is to install a more historically appropriate light standard that also provides an appropriate quantity and quality of light.



Figure 4.16: *Existing lamp post in Washington Square (Pressley Associates, 2009).*

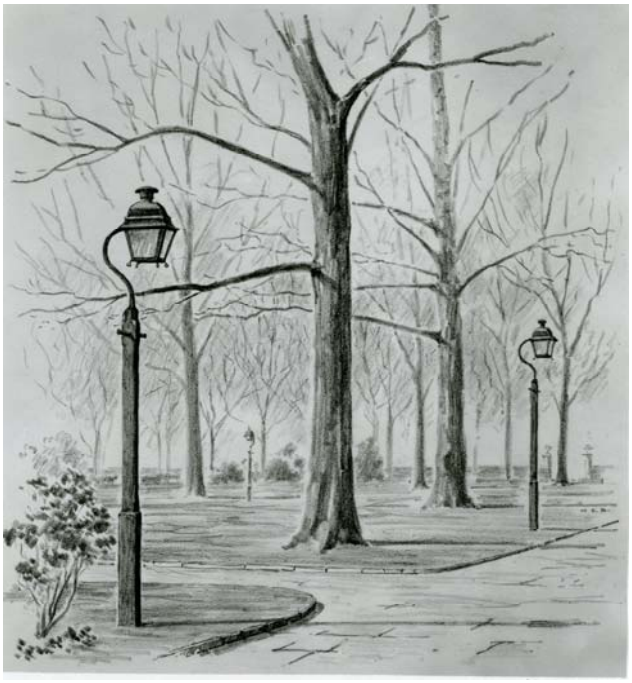


Figure 4.17: *Brumbaugh sketch for Colonial Revival light fixtures Note the smaller lamp head (Courtesy, The Winterthur Library: Joseph Downs Collection of Manuscripts and Printed Ephemera).*

Signage

The NPS is currently implementing a new system of location and directional signage for Independence NHP and the existing entrance signs at Washington Square will be removed and replaced with new signs that identify the square with the NPS logo. This will help convey that the square is managed by the NPS.



Figure 4.18: *Rules sign near the fountain with laminated paper cell phone tour information attached to metal stake (Pressley Associates, 2009).*



Figure 4.19: *Damaged sign at the entrance to Washington Square, to be replaced by a new identification sign following NPS standards for Independence NHP (Pressley Associates, 2009).*

Specific issues related to the use of Washington Square that are addressed in a variety of sign styles include dog regulations, fountain use, night time use, and use of the square for active sports.

Additional work is needed to fully evaluate the variety and placement of signs in Washington Square that communicate educational information and public use guidelines in a wide range of styles and materials. While it is important to convey general rules and regulations, care should be taken not to clutter the landscape unnecessarily with a variety of sign types and styles because it detracts from the overall character of the landscape and complicates both maintenance and visitor understanding. For this reason, it may desirable to remove some of the existing signage and replace all of the non-interpretive signage with a consistent approach following the design standards recently developed for the park.

Interpretive Signs and Waysides

The existing interpretive waysides inside Washington Square were installed by the American Patriots Fund as part of the work completed in advance of the NPS easement acquisition. These panels contain important information about the history of Washington Square, but are markedly different in character than the typical waysides found throughout Independence NHP. For this reason, when they deteriorate and are considered for removal, they should be replaced by a new design that conveys the NPS standard. At the same time, the content, topic, and illustrations on each wayside should be reviewed to ensure that all of the key themes and topics relevant to Washington Square are conveyed. For example, developing and additional interpretive waysides about the horticultural history of Washington Square and the 1869 Philadelphia Fountain Society [Horse Trough] Fountain is recommended.



Figure 4.20: *Existing waysides in Washington Square (Pressley Associates, 2009).*

Benches

Benches in a wide variety of shapes and sizes have been an important feature in Washington Square for at least a century. The existing teak benches installed by the City are attractive and functional and present a consistent bench used throughout the square. There has been some discussion about the opportunity they present for visitors to lie down and sleep, but the open seat allows for comfort and flexibility.



Figure 4.21: *Existing teak bench in Washington Square with memorial plaque installed before NPS assumed stewardship of Washington Square (Pressley Associates, 2009).*

Memorial plaques on benches are often stolen or fall off. Replacement plaques may be installed when existing plaques are lost or stolen, but additional plaques should not be installed. However, the benches should be retained and replaced in kind when deteriorated, so that square contains a single bench style.

Trash Receptacles

Trash receptacles manufactured by Victor Stanley are located in several places within the square. The existing receptacles are a simple, suitable design. They require regular maintenance and emptying, which is accomplished by the NPS. The cart used to collect trash is chained to the southeast guard house and should be removed from the historic structure. Recycling receptacles should be added to the square, but this should be implemented in such a way as to provide a limited number of additional receptacles that compatible with the existing containers.

Philadelphia Fountain Society [Horse Trough] Fountain

This cultural resource should be identified by the park as a historic object, evaluated, and added to the List of Classified Structures (LCS).

Surveillance cameras

The City of Philadelphia is implementing a public safety program involving surveillance cameras, which should be coordinated with the NPS at Washington Square. The City has studied a variety of options including mounting a small camera on the bottom of the existing light fixtures. Regardless, design and location of surveillance features on Washington Square should be implemented in close coordination with the NPS and without adversely affecting the character of the landscape.

Utilities

An additional 20 amp outlet is needed near the flagpole in the fountain plaza, to avoid using a

generator during the City's Veterans Day ceremony, and other potential events staged on the site.

Irrigation System
The existing irrigation system is crucial to the maintenance of Washington Square. Currently, the system does not appear to cover the entire vegetated area. For this reason, a thorough evaluation of the existing irrigation system is needed, including a cost estimate for recommended repair or improvements. If and when changes are made to the existing plant material, or if issues related to dehydration or over-watering appear in the vegetation, modification to the existing configuration of the irrigation system may be required.

Drainage System
Existing inlets, catch basins, and drain covers should be evaluated site-wide to determine their current function and the degree to which the drain cover design contributes to the build up of leaves and silt.

Statues & Memorials

Memorial to the Unknown Revolutionary War Soldier

The Memorial consists of an integrated design consisting of the Memorial, eternal flame, flags and flag court and fountain and fountain court. Early plans by G. Edwin Brumbaugh show very simple evergreen planting around the sides and rear of the Memorial, with an additional path connecting at a right angle to the bluestone walk parallel to West Washington Square that was never constructed. This element should be treated as an integrated feature or component landscape with a high degree of attention toward preserving the original design and materials as originally constructed. Although it appears to be in relatively good condition, the entire Memorial would benefit from a thorough condition assessment to identify existing or potential problems as a benchmark for future conservation and treatment.

There are a few condition issues that warrant treatment immediately:

- Two sections of bronze chain are missing and have been replaced with inappropriate materials (one is steel and the other plastic). These should be replaced with bronze chain to match the original.
- The flags representing the original thirteen colonies are subject to wear and are currently replaced on an ad hoc basis. A regular annual inspection and replacement program should be developed to ensure that the flags look presentable at the most critical times of year such as Veteran's Day. At the same time, the existing flagpoles should be inspected. The existing plaques identifying each colony on their corresponding flagpole should be inspected regularly and replaced when needed.

See also the discussion of the planting bordering the Memorial under vegetation above.

Fountain
Overall, the fountain is in good condition. It does present a challenge for maintenance and public use since it is drained in the winter and requires regular draining and filling during the spring, summer and fall seasons. It is attractive for children and access to the fountain basin (empty and full) is prohibited. There is some evidence of minor moisture damage as the stone is exfoliating at the base of the rim. This feature should be monitored regularly and retained in good condition.

The lily pad fountain, originally designed by Edwin Brumbaugh was never installed in the original construction contract. It was built later as a larger version that is out of scale with the original design. This feature should not be replaced. The existing jet should be retained to produce a water spout of approximately 10-12' in height as evident in Brumbaugh's drawings and in photographs taken of the square shortly after its installation.

Memorial Plaques

Washington Square has a large collection of small memorials and plaques that signify the contributions of notable individuals and organizations commemorate historical events, or which list information and rules. Some of these were installed during the period of significance, including the D.A.R. plaque and monument (1900), plaque on the Memorial to the Unknown Revolutionary War Soldier (1957), White Oak plaque (1945), and the Society of Little Gardens Plaque (1937). All of the others are recent additions. NPS should strive to limit the addition of future memorial plaques to Washington Square and develop a consistent approach for preservation and conservation for those existing in the square.

Structures

Northwest Guard House

This historic structure houses the controls for the Memorial and is in fair to good condition with a few specific repair needs. The north window sill is rotting and building needs painting. While this structure is centrally located in the square, close to the Memorial and fountain and the Seventh Street entrance, it may not be a good candidate for an alternative use. Overall, the guard house should be retained and preserved with an annual maintenance program.

Southeast Guard House

This historic structure is in fair to poor condition and is in urgent need of repair, largely because it lacks a proper foundation. Given the character and significance of the Guard House, rehabilitation work should be closely supervised by a historical architect to ensure that the unique features and materials associated with the structure are retained and preserved. Trash barrels and plastic carts that have been chained to the structure in the past should be removed. Since this guard house is not actively used, it is a good candidate for an alternative use, such as staffed visitor information center or storage for gardening tools and supplies. Even though these Guard Houses, originally built by the Fairmount Park Commission, were designed to be movable, re-locating the guard house is not recommended at this time because no evidence exists that it ever stood in another location on Washington Square.



Figure 4.22: *Southeast guard house – note the lack of a proper foundation, deteriorated sill, and inappropriately chained wheel barrow (Pressley Associates, 2009).*

Maintenance Plan

Defining the short and long-term maintenance needs of the site is a critical component of the current and future preservation of Washington Square. A maintenance plan for Washington Square should be developed to ensure long-term preservation of existing features using sustainable methods consistent with NPS policies and practices, with an emphasis on methods appropriate for the care of a historic landscape. Elements to be addressed in the maintenance plan should include, but not be limited to:

- **Tree maintenance:** annual and cyclic maintenance practices related to tree care, including annual inspections/risk assessment, pruning, standards for the replacement of dying or deteriorated trees, and mulching.

- **Turf maintenance:** sustainable methods to retain a healthy coverage of grass including re-seeding, nutrient enhancement, and mowing so that a green ground plane is preserved as an integral part of the character of Washington Square.
- **Guidelines for the introduction of herbaceous plant material** including work by both NPS staff and volunteers.
- **Irrigation system maintenance:** monitoring coverage and effectiveness with adjustments needed depending on the condition and configuration of the existing vegetation and turf.
- **Standards for snow removal:** with guidelines for the protection of existing features particularly stone paving, turf and other vegetation.
- **Best management practices:** related to the ongoing maintenance of the drainage system, including annual/cyclic cleaning of inlets, sweeping, and the clearing of plant debris or trash that could affect the performance of the drainage system.
- **Staffing and equipment needs:** review basic operational requirements necessary to maintain Washington Square in good condition in the context of Independence National Historical Park.

Society Hill Civic Association

The National Park Service should develop an agreement with the Society Hill Civic Association, who regularly use the square and have been actively involved in planting and maintenance. This agreement could establish clear roles and responsibilities and provide a framework for developing an annual work plan that would achieve both the preservation and aesthetic goals for both organizations.

Recommendations for Additional Work

The following studies and projects are recommended as follow-up to this CLR, to be undertaken by Independence National Historical Park as funds become available:

- Conduct a historic resource study focused on the history of civic associations and volunteer organizations that have worked to preserve and enhance Washington Square.
- Complete a detailed design plan for the Memorial landscape including the fountain, to include new compatible plantings surrounding the back of the memorial and flag court, consistent with the original design by Brumbaugh and Sears.
- Develop a maintenance plan for the site that addresses both existing conditions and future/rehabilitated gardens; defines routine and cyclic work; and describes staff needed to adequately care for the buildings and landscape year-round;
- Develop a formal agreement with the Society Hill Civic Association that specifically expresses the expectations for both organizations, with a particular focus on planting.
- Develop a sign plan with comprehensive standards for Washington Square consistent with the new standards for Independence National Historical Park; implement new signs to consolidate rules and regulations in a visually compatible design and in locations where the information will be both effective and non-intrusive.
- Present the findings of this CLR to the City of Philadelphia, Society Hill Civic Association and other interested parties.

- Prepare an annotated chronology of historic events, design plans, and physical changes to Washington Square based on the Site History section of this CLR.
- Update the RK&K survey using the City of Philadelphia datum.
- Further research and analyze the historic tree composition of Independence National Historical Park. This could include, at a minimum, a comparison of the Vaughn list for Independence Square with the analysis done for Washington Square.
- Undertake a lighting study in anticipation of the replacement of the existing non-historic features. This study will result in the design of a new Colonial Revival light fixture that provides sufficient illumination for safety but which is closer in proportion to the original Brumbaugh design.

Endnotes

[1] National Park Service, *The Secretary of the Interior's Standards for the Treatment of Historic Properties*. Washington, D.C.: Department of the Interior, 1992.

[2] Ibid.

[3] Charles Birnbaum, Editor, *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes.* (Washington, DC: National Park Service, 1996, p. 6.

[4] Ibid., p. 17.

[5] Ibid., p. 47.

[6] Ibid., p. 89.

[7] DO 28: Cultural Resource Management Guideline, Chapter 7, p. 103 (National Park Service).

[8] Ibid., pp. 103-104.

[9] Not usually recommended, but the existing tree should be retained.

[10] Not recommended – highly invasive.

[11] Suitable if a disease-resistant variety can be found.

[12] Species added as per Susan Edens. "Review of Washington Square CLR Plant Lists," November 10, 2010. Current nomenclature is more likely *Celtis taiyanensis*; no English common name has been found.

[13] *Gleditsia triacanthos* 'inermis' is acceptable.

[14] Likely *Koelreuteria paniculata.*

[15] Likely *Laburnum x waterei.*

[16] *Quercus cerris* (Turkey Oak) currently exists on the square.

[17] Likely *Sorbus americana.*

[18] Given the prevalence of Dutch Elm Disease, use of an American Elm cultivar acceptable to the NPS would be appropriate.

[19] Exact species is not known.

[20] Not recommended – likely not hardy.

[21] Not recommended – likely not hardy.

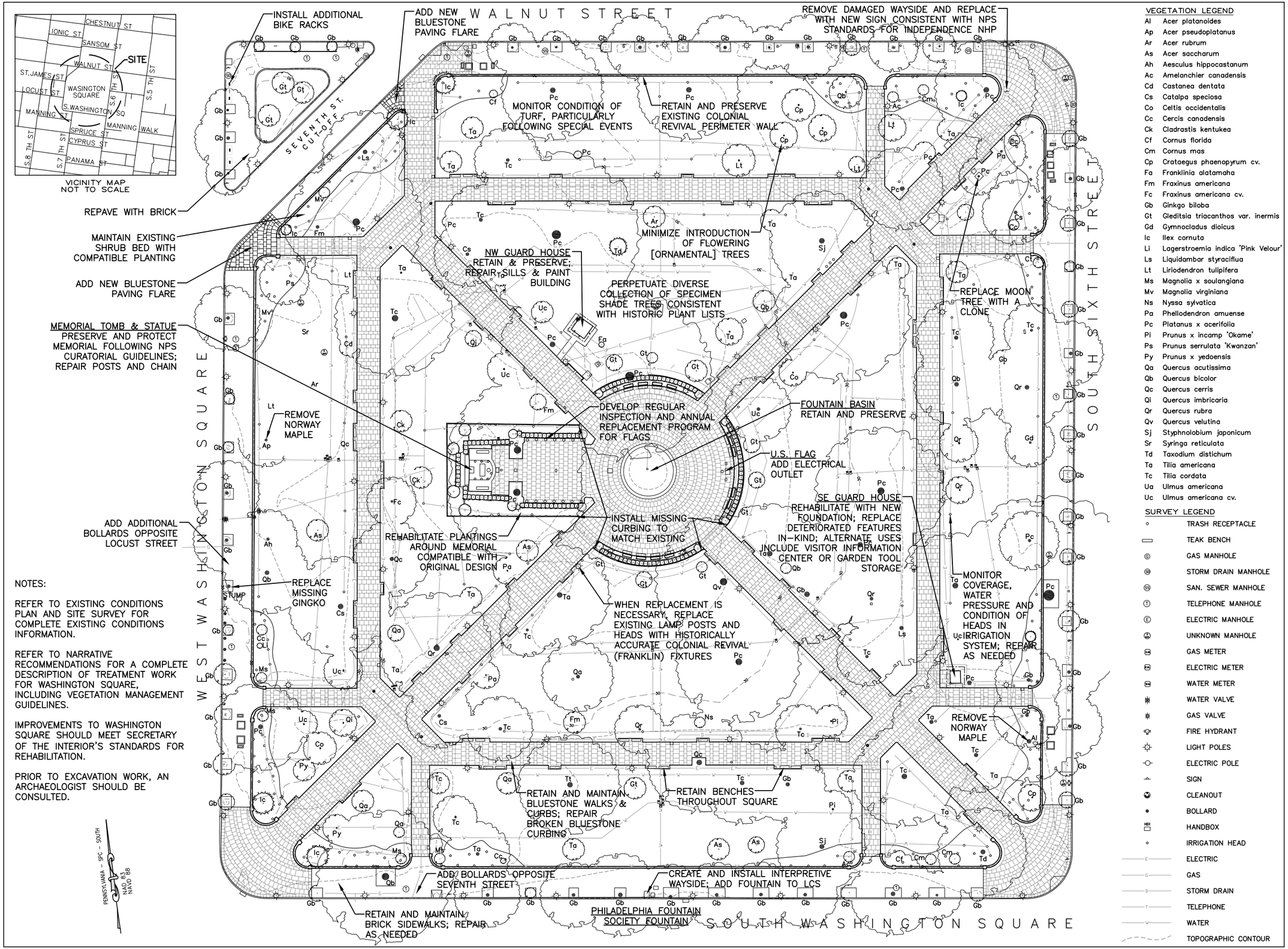
[22] Not recommended – prone to disease.

[23] Use only if the NPS has an effective program for management of woody adelgid.

[24] Not recommended – invasive.

[25] Not recommended – invasive.

[26] Exact species not known.



NOTES:

REFER TO EXISTING CONDITIONS PLAN AND SITE SURVEY FOR COMPLETE EXISTING CONDITIONS INFORMATION.

REFER TO NARRATIVE RECOMMENDATIONS FOR A COMPLETE DESCRIPTION OF TREATMENT WORK FOR WASHINGTON SQUARE, INCLUDING VEGETATION MANAGEMENT GUIDELINES.

IMPROVEMENTS TO WASHINGTON SQUARE SHOULD MEET SECRETARY OF THE INTERIOR'S STANDARDS FOR REHABILITATION.

PRIOR TO EXCAVATION WORK, AN ARCHAEOLOGIST SHOULD BE CONSULTED.

VEGETATION LEGEND

Al	Acer platanoides
Ap	Acer pseudoplatanus
Ar	Acer rubrum
As	Acer saccharum
Ah	Aesculus hippocastanum
Ac	Amelanchier canadensis
Cd	Castanea dentata
Cs	Catalpa speciosa
Co	Celtis occidentalis
Cc	Cercis canadensis
Ck	Cladrastis kentukea
Cf	Cornus florida
Cm	Cornus mas
Cp	Crataegus phaenopyrum cv.
Fa	Franklinia alatamaha
Fm	Fraxinus americana
Fc	Fraxinus americana cv.
Gb	Ginkgo biloba
Gt	Gleditsia triacanthos var. inermis
Gd	Gymnocladus dioicus
Ic	Ilex cornuta
Li	Lagerstroemia indica 'Pink Velour'
Ls	Liquidambar styraciflua
Lt	Liriodendron tulipifera
Ms	Magnolia x soulangiana
Mv	Magnolia virginiana
Ns	Nyssa sylvatica
Pa	Phellodendron amuense
Pc	Platanus x acerifolia
Pi	Prunus x incamp 'Okame'
Ps	Prunus serrulata 'Kwanzan'
Py	Prunus x yedoensis
Qa	Quercus acutissima
Qb	Quercus bicolor
Qc	Quercus cerris
Qi	Quercus imbricaria
Qr	Quercus rubra
Qv	Quercus velutina
Sj	Styphnolobium japonicum
Sr	Syringa reticulata
Td	Taxodium distichum
Ta	Tilia americana
Tc	Tilia cordata
Ua	Ulmus americana
Uc	Ulmus americana cv.

SURVEY LEGEND

- TRASH RECEPTACLE
- TEAK BENCH
- GAS MANHOLE
- STORM DRAIN MANHOLE
- SAN. SEWER MANHOLE
- TELEPHONE MANHOLE
- ELECTRIC MANHOLE
- UNKNOWN MANHOLE
- GAS METER
- ELECTRIC METER
- WATER METER
- WATER VALVE
- GAS VALVE
- FIRE HYDRANT
- LIGHT POLES
- ELECTRIC POLE
- SIGN
- CLEANOUT
- BOLLARD
- HANDBOX
- IRRIGATION HEAD
- ELECTRIC
- GAS
- STORM DRAIN
- TELEPHONE
- WATER
- TOPOGRAPHIC CONTOUR

Treatment Plan

Washington Square

Independence National Historical Park

Philadelphia, Pennsylvania

Prepared by:

DHM Design

Pressley Associates, Landscape Architects

with RK&K

SOURCES:
1. SURVEY PREPARED BY RK&K ENGINEERS, JUNE 4, 2010.
2. FIELD OBSERVATIONS COMPLETED BY PRESSLEY ASSOCIATES, DECEMBER 2009 & APRIL 2010.
3. TREE IDENTIFICATION BASED ON SURVEY COMPLETED BY THE UNIVERSITY OF PENNSYLVANIA, MORRIS ARBORETUM, URBAN FORESTRY TEAM, AUGUST 6, 2010, UPDATED DECEMBER 20, 2010.

DRAWN BY: CMB

CHECKED BY: LGM

DATE: SEPTEMBER 2010, REV. FEBRUARY 2011

15 0 30 60

SCALE IN FEET

SHEET	DRAWING NO.
1 of 1	391/105,618

SOURCES

List of Repositories Consulted and Associated Collections

Athenaeum of Philadelphia

Athenaeum Competition Entries
Birch Engravings
George Vaux Papers
Washington Square Association Papers

City of Philadelphia

Department of Records

Frederick Law Olmsted National Historic Site

Plans and Drawings Collections, Job #03825: Washington Square, Philadelphia, Pennsylvania, 1913
Records and Reports Collection

Haverford College Library

Thomas P. Cope Diary

Historical Society of Pennsylvania

Campbell Collection
Dr. Dan Rolph Research File
David J. Kennedy Collection
Dreer Collection
Penrose Collection
Philadelphia Record Photographs
Society Photograph Collection
Society Print Collection

Independence National Historical Park

Washington Square Collection
Anna Coxe Toogood, Washington Square File
Card Files, primarily from "Horticulture, Public Squares"
Denise Rabzak Research Notes
Wendy Woloson Research Notes

Library Company of Philadelphia

Print & Photograph Department

Library of Congress

Records of the Olmsted Associates, 1863-1971, Manuscript Division.
The Historic American Buildings Survey (HABS) and the Historic American Engineering Record (HAER) Collections, Prints and Photographs Division
Papers of Thomas Lee Shippen, 1787-1833, Manuscript Division

Pennsylvania Horticultural Society

Special Collections

Philadelphia Free Library

Print & Picture Collection
Map Collection

Temple University

Urban Archives Collection

University of Pennsylvania

Special Collections Library

Winterthur Museum & Library

G. Edwin Brumbaugh Papers, 1890-1983
Taylor Sketchbooks, "Views of Old Philadelphia," 1861

Online Databases

American Architects and Buildings:
www.americanbuildings.org
Greater Philadelphia GeoHistory Network:
http://www.philageohistory.org/geohistory/
Olmsted Research Guide Online:
ww2.rediscov.com/Olmsted
Pennsylvania Cultural Resource Graphic Information System:
https://www.dot7.state.pa.us/ce/SelectWelcome.asp
Philadelphia Architects and Buildings:
http://www.philadelphiabuildings.org/pab/
Philly History:
http://www.phillyhistory.org/PhotoArchive/Home.aspx
Places in Time: Historical Documentation of Place in Greater Philadelphia:
http://www.brynmawr.edu/iconog/frdr.html
West Philadelphia Community History Center:
http://www.archives.upenn.edu/histy/features/wphila/maps/maps_tc.html

Bibliography

Secondary Sources Specific to Washington Square

Published Sources

"A House in Washington Square." In *Annals, Notes from The Athenaeum of Philadelphia* III, no. 3 (March 1957).

Dallett, Francis James. *An Architectural View of Washington Square, Philadelphia*. Frome, England: Printed by Butler & Tanner, 1968.

Double, Bill. "A Modest Fountain on the Square." *Pennsylvania Heritage* (Summer 2009): 6-13.

Double, Bill. *Images of America: Philadelphia's Washington Square*. Charleston, SC: Arcadia Publishing, 2009.

Frey, Carroll. *Philadelphia's Washington Square*. Philadelphia, PA: Penn Mutual Life Insurance Co., c.1952.

Gatchel & Manning. *Musings in Washington Square*. Philadelphia, PA: Gatchel & Manning, photo-engravers, 1944.

Of Washington Square (Publisher's Square). Philadelphia, PA: Priv. print., 1912.

Wharton, Henry. "Washington Square: Opinion as to the Legality of its Use for Public Purposes, Philadelphia, PA, 1870," Philadelphia, PA, 1870.

Newspaper Articles

The Aesculapian Register 1:2, 24 June 1824.

Avery, Ron. "Washington Square is Full of Skeletons." *Philadelphia Daily News*, 8 November 1999.

Chevailer, Jack. "Washington Square Saw Sorrow, Joy." *Philadelphia Tribune*, 11 November 2003.

"Commons." *The Pennsylvania Gazette*, 6 April 1758.

"Communication." *National Gazette*, 1 June 1830.

"Communication." *Poulson's American Daily Advertiser* XLVII: 129912, 14 July 1818.

"Diggers Uncover Soldiers' Bones from Revolution." *Philadelphia Inquirer*, 21 November 1956.

Farr, Stephanie. "Fundraiser for Fence of History at Delco's Eden Cemetery." *Philadelphia Daily News,* 16 October 2008.

Farr, Stephanie. "It Came from the Moon and Now It's Dying." *Philadelphia Daily News*, 23 October 2009.

"For the North American, The Academy of Fine Arts." *The North American* 5:1416, 13 October 1843.

"Historic Washington Square Being Made into Park Combining Beauty and Utility." *Public Ledger*, 26 December 1915.

"Horticultural Society Officers." *The Philadelphia Inquirer* 135:169, 16 December 1896.

"Human Bones Exhumed in Washington Square," *Public Ledger*, 9 June 1915.

"Human Remains Found in Washington Square." *Metro* (Philadelphia, PA), 10 October 2006.

"In Wedlock's Bonds for Half a Century. Urias Eisenhower, an Old Court Officer, and His Wife Will Mark Fiftieth Anniversary of their Marriage." *The Philadelphia Inquirer* 147:88, 26 September 1902.

Jackson, Joseph. "Our Town: Trees in Washington Square." *Evening Public Ledger*, 11 September 1940.

"Local Affairs." *The North American* 5:1271, 26 April 1843.

Lewis, Frank. "This Old Park: Now that Washington Square has been renovated, would it be possible to get the grass cut?" *Philadelphia City Paper*, City Beat, 11-18 May 2000.

Naymik, Mark. "Square Numbers: High bids on Washington Square renovation could delay the park's closing." *Philadelphia City Paper,* City Beat, 26 March-2 April 1998.

"Obituary, Alfred S. Eisenhower, Tipstaff Former City Property Chief Passes Away." *The Philadelphia Inquirer* 176:32, 1 February 1917.

"Obituary, John B. Colahan." *The New York Times*, 26 March 1892.

"One Hundred Years Ago: Washington Square." *National Gazette*, 10 February 1833.

"Park OKs Memorial for Washington Sq." *Philadelphia Inquirer*, 12 February 1954.

"Philadelphia. Sights from a Steeple." *North American* 6:1795, 3 January 1845.

"Proceedings of City Councils." *National Gazette*, 5 September 1837.

"Progress to Wipe out 'Lawyers' Row.'" *Evening Bulletin*, 11 September 1908.

The Pennsylvania Gazette, 12 November 1741.

The Pennsylvania Gazette, 13 April 1753, p. 3, col. 2.

The Pennsylvania Gazette, 8 May 1766.

Porcupine Gazette, 5 July 1797.

Poulson's Daily American Advertiser, 10 June 1825.

"Progress to Wipe Out 'Lawyer's Row; Buildings on Walnut and Sixth Streets in Which Noted Attorneys were Located to be Demolished." *Bulletin*, 11 September 1908.

Public Ledger 13:33, 27 April 1842.

"Remains of Revolutionary Soldier Hunted in Washington Square for a Memorial." *The Sunday Bulletin*, 5 August 1956.

The Saturday Evening Post, 17 July 1830.

Shelmerdine, William H. "Straighten Seventh Street." *Ledger*, 15 July 1913.

"Soldier of Revolution Honored in Washington Square Rites." *Evening Bulletin*, 27 June 1957.

Sunday Dispatch, 30 October 1859.

"Thomas' Answers Compared with those of Leaders." *The Philadelphia Inquirer*, 2 August 1905.

"Urges Display of Relics; C.F. Jenkins Says Phila. Should Capitalize Historical Treasures." *Philadelphia Inquirer* 181:45, 14 August 1919.

"The Washington Monument." *National Gazette*, 11 November 1824.

"Washington Square." *Public Ledger and Daily Transcript*, 19 July 1838, p. 2, col. 2.

"Washington Square." *Public Ledger and Daily Transcript*, 29 August 1838, p. 2, col. 4.

"Washington Square." *The North American and Daily Advertiser* 3:921, 11 March 1842.

"Washington Sq. Cut-Off Approved by Park Board." *Philadelphia Inquirer*, 14 March 1947.

"Washington Square Made National Shrine, Tomb of Unknown Soldier of Revolutionary War Dedicated in Solemn Ceremony." *Penn Mutual Newsletter* 42, no. 5 (1957).

"Washington Square Memorial Set, Revolutionary Dead Will Be Honored." *Evening Bulletin*, 11 February 1954.

Weart, William G. "Unknown Soldier of '76 Gets Shrine." *New York Times*, 7 March 1954.

"William Dixey Dead." *The Philadelphia Inquirer* 139:7, 7 July 1898.

Unpublished Sources

Kennedy, Arthur M. "Philadelphia's Washington Square: An Address Delivered by Arthur M. Kennedy before the Germantown Historical Society, February 17, 1942."

Labs, Kenneth B. "The Southeast Square of Philadelphia: An Evolutionary History," 1973.

"A Plea for the Railings," n.p., n.d. (c.1888-1890).

Washington Square Planning Committee. "Minutes of Meeting," 27 April 1954.

Other Secondary Sources

Published Sources

Barker, Charles R. *A Register of the Burying Grounds of Philadelphia*, Vol. I, A-G, 1943 Penn Mutual Life Insurance Company. *The Independence Square Neighborhood*. Philadelphia, PA: The Penn Mutual Life Insurance Company, 1926.

Barton, George. *Little Journeys Around Old Philadelphia*. Philadelphia, PA: Peter Reilly Company, 1926.

Birnbaum, Charles A. and Robin Karson, eds. *Pioneers of American Landscape Design.* New York: McGraw Hill, 2000.

Blockson, Charles L. *Philadelphia, 1639-2000*. Charleston, SC: Arcadia Publishing, 2000.

Brown, William Findlay and Ira Jewell Williams, comp. *A Digest of Laws and Ordinances Concerning Philadelphia, with Notes of Decisions and City Solicitor's Opinions Relating Thereto, 1701-1904*. Philadelphia, PA: J.L.H. Bayne, Law Publisher, 1905.

Butterfield, L.H., ed. and Wendell D. Garrett and Marjorie E. Sprague, assistant editors. *Adams Family Correspondence*, Vol. 2, June 1776-March 1778. Cambridge, MA: The Belknap Press of Harvard University Press, 1963.

Campana, Richard J. *Arboriculture: History and Development in North America.* East Lansing, MI: Michigan State University Press, 1999.

Carson, Hampton L. *A History of The Historical Society of Pennsylvania, Volume One*. Philadelphia, PA: Published by the Society under the Special Centennial Publication Fund, 1940.

Carpenter, Edward and General Louis Henry Carpenter. *Samuel Carpenter and His Descendents*. Philadelphia, PA: J.B. Lippincott Company, 1912.

Cohen, Jeffrey A. "Early American Architectural Drawings in Philadelphia" and "George Bridport" in James F. O'Gorman et al. *Drawing Toward Building, Philadelphia Architectural Graphics 1732-1985.* Philadelphia, PA: University of Pennsylvania Press, 1986.

Coke, E.T. *A Subaltern's Furlough*, Vol. I. New York, NY: J. & J. Harper, 1833.

Conan, Michel and W. John Kress, editors. *Botanical Progress, Horticultural Innovation and Cultural Change.* Washington, DC: Dumbarton Oaks Research Library and Collections, 2007.

Cotter, John L., Daniel G. Roberts and Michael Parington. *The Buried Past: An Archaeological History of Philadelphia*. Philadelphia, PA: University of Pennsylvania Press, 1992.

Davis, Allen F. and Mark H. Haller. *The People of Philadelphia: A History of Ethnic Groups and Lower-Class Life, 1790-1940*. Philadelphia, PA: University of Pennsylvania Press, 1973.

Davis, David Brion. *The Problem of Slavery in the Age of Revolution, 1770-1823*. Ithaca, NY: Cornell University Press, 1975.

"Diaries of Sidney George Fisher, 1839-1840." *Pennsylvania Magazine of History and Biography*, Vol. 77, No. 1 (Jan. 1953): 76-100.

Downing, Andrew Jackson. *Rural Essays*. New York, NY: Putnams, 1853.

Eisenheart, Luther P. *Historic Philadelphia: From the Founding Until the Early Nineteenth Century: Papers Dealing with Its People and Buildings with an Illustrative Map*. Philadelphia, PA: American Philosophical Society, 1953.

Fitch, James Marston. *American Building: The Historical Forces that Shaped It*. Boston, MA: Houghton Mifflin Company, 1966.

Fitch, James Marston. *Historic Preservation: Curatorial Management of the Built World.* Charlottesville, VA; University of Virginia Press, 1990.

Fries, Sylvia Doughty. *The Urban Idea in Colonial America*. Philadelphia, PA: Temple University Press, 1977.

Grieff, Constance. *Independence: The Creation of a National Park*. Philadelphia, PA: University of Pennsylvania Press, 1987.

Groce, George C. and David H. Wallace. *The New-York Historical Society's Dictionary of Artists in America, 1564-1860*. New Haven: Yale University Press, 1957.

Gospill's Philadelphia City Directory for 1890. Philadelphia, PA: James Gospill's Sons, 1890.

Gustafson, Eleanor H. "George Bridport." *Magazine Antiques* (May 2006).

Hazard, Samuel, ed. *Pennsylvania Archives. Selected and Arranged from Original Documents in the Office of the Secretary of the Commonwealth*, Vol. XII. Philadelphia, PA: Joseph Severns & Co., 1856.

Hedrick, U.P. *A History of Horticulture in America to 1860* with *an Addendum of Books Published from 1861-1920* by Elisabeth Woodburn. Portland, OR: Timber Press, 1988.

Hexamer, Ernest & William Locher. *Maps of the City of Philadelphia*, Vol. 1, 1860.

Hexamer, Ernest & Son. *Insurance Maps of the City of Philadelphia*, Vol. 1 Philadelphia, PA: Ernest Hexamer & Son, 1897.

"Independence Mall," *Penn Mutual Annual Report*, 1954.

Jackson, Joseph. *Encyclopedia of Philadelphia*, Vol. II. Harrisburg, PA: The National Historical Association, 1931.

Jackson, Joseph. *Encyclopedia of Philadelphia*, Vol. IV. Harrisburg, PA: The National Historical Association, 1931.

Keels, Thomas H. *Images of America: Philadelphia Gravesites and Cemeteries*. Charleston, SC: Arcadia Publishing, 2003.

Kromer, John. *Neighborhood Recovery: Reinvestment Policy for the New Hometown*. Piscataway, NJ: Rutgers University Press, 2000.

Lauck, William Jett. *The Causes of the Panic of 1893*. Boston, MA: Houghton Mifflin and Company, 1907.

Lawliss, Lucy; Caroline Loughlin and Lauren Meier, editors. *The Master List of Design Projects of the Olmsted Firm, 1857-1979.* Washington, D.C.: National Association for Olmsted Parks and the National Park Service, Frederick Law Olmsted National Historic Site, 2008.

Laws, Ordinances and Regulation Relating to Fairmount Park and Other Parks under the Control of the Fairmount Park Commission. Philadelphia, PA: Printed for the Commission, 1933.

Lippincott, Horace Mather. *Early Philadelphia: Its People, Life, and Progress*. Philadelphia, PA: J.B. Lippincott Company, 1917.

Lockwood, Alice B. *Gardens of Colony and State*, Vol. I, New York, NY: Charles Scribner's Sons for the Garden Club of America, 1931-34.

Looney, Robert F. *Old Philadelphia in Early Photographs, 1839-1914*. New York, NY: Dover Publications, Inc. in cooperation with The Free Library of Philadelphia, 1976.

Lossing, Benson, J. *The Pictorial Field-book of the Revolution*, Vol. II. New York, NY: Harper & Brothers, 1852.

Members of the Bar. *Weekly Notes of Cases Argued and Determined in the Supreme Court of Pennsylvania, the County Courts of Philadelphia, and the United States District Court and Circuit Courts for the Eastern District of Pennsylvania*, Vol. X, April 1881 to December 1881. Philadelphia, PA: Kay & Brother, 1881.

Members of the Senior Class in the Wharton School of Finance and Economy. *The City Government of Philadelphia: A Study in Municipal Administration*. Philadelphia, PA: University of Pennsylvania, 1893.

Morris, A.E.J. *History of Urban Form before the Industrial Revolution*. New York, NY: John Wiley & Sons, 1979.

Morris, Charles. *Visitors' Guide Book to Philadelphia*. Philadelphia, PA: J.B. Lippincott Company, 1916.

Moss, Roger W. "Haviland, John (1792-1852), Architect" Philadelphia Architects and Buildings, American Architects and Buildings database, 2006 <www.americanbuildings.org> accessed 04/19/2010.

Nash, Gary. *Forging Freedom: The Formation of Philadelphia's Black Community, 1720-1840*. Cambridge, MA: Harvard University Press, 1988.

N.W. Ayer & Son, Inc. "Washington Square." Philadelphia, PA: Priv. print., 1957.

Oberholtzer, Ellis Paxton, Ph.D. *Philadelphia: A History of the City and its People*, Vol. I. Philadelphia, PA: S.J. Clarke Publishing Company, 1912.

O'Malley, Therese. *Keywords in American Landscape Design*. New Haven, CT: Yale University Press with Center for the Advanced Study in the Visual Arts, National Gallery of Art, 2010.

Penn Mutual Life Insurance Company. *The Independence Square Neighborhood*. Philadelphia, PA: The Penn Mutual Life Insurance Company, 1926.

Pennsylvania Horticultural Society. *From Seed to Flower, Philadelphia 1861-1876*. Philadelphia, PA: The Pennsylvania Horticultural Society.

The Philadelphia Times Almanac, annually 1887-1891. Philadelphia, PA: The Times.

Prown, W.F., ed. *Digest of Laws and Ordinances Concerning Philadelphia*. Philadelphia, PA: J.L.H. Bayne, 1905.

The Public Ledger Almanac, annually 1875-1180. Philadelphia, PA: George W. Childs.

Report of the Committee Appointed by the Horticultural Society of Pennsylvania, for Visiting the Nurseries and Gardens in the Vicinity of Philadelphia, July 13th, 1830, Philadelphia, PA: Wm. F. Geddes, 1831.

Reps, John W. *Town Planning in Frontier America*. Princeton, NY: Princeton University Press, 1969.

Reps, John W. *The Making of Urban America: A History of City Planning in the United States*. Princeton, NJ: Princeton University Press, 1965.

Rivinus, Marion Martin. *Philadelphia's Squares*. Philadelphia, PA: International Printing Co., 1958.

Scharf, J. Thomas and Thompson Westcott. *History of Philadelphia, 1609-1884*, Vol. I. Philadelphia, PA: L.H. Everts & Co., 1884.

Scharf, J. Thomas and Thompson Westcott. *History of Philadelphia, 1609-1884*, Vol. II. Philadelphia, PA: L.H. Everts & Co., 1884.

Scharf, J. Thomas and Thompson Westcott. *History of Philadelphia, 1609-1884*, Vol. III. Philadelphia, PA: L.H. Everts & Co., 1884.

Simpson, Henry. *The Lives of Eminent Philadelphians Now Deceased*. Philadelphia, PA: William Brotherhead, 1859.

Stipe, Robert E., editor. *A Richer Heritage: Historic Preservation in the Twenty-First Century.* Chapel Hill, NC: The University of North Carolina Press, 2003.

Stipe, Robert E. and Antoinette J. Lee, editors. *The American Mosaic: Preserving a Nation's Heritage.* Washington, D.C.: US/ICOMOS, 1987.

Tatum, George B. *Penn's Great Town: 250 Years of Philadelphia Architecture Illustrated in Prints and Drawings*. Philadelphia, PA: University of Pennsylvania Press, 1961.

Transactions of the Pennsylvania Horticultural Society. Philadelphia, PA: William Stavely & Co., 1839-44.

Trollope, Frances. *Domestic Manners of the Americans*. York, NY: Dodd, Mead & Company, 1901.

Watson, John F. *Annals of Philadelphia, and Pennsylvania, in the Olden Time*, Vol. 1. Philadelphia, PA: Edwin S. Stuart, 1900.

Watson, John F., rev. by Willis P. Hazard. *Annals of Philadelphia, and Pennsylvania, in the Olden Time*, Vol. 1. Philadelphia, PA: Leary, Stuart Co., 1844.

Watson, John F., rev. by Willis P. Hazard. *Annals of Philadelphia, and Pennsylvania, in the Olden Time*, Vol. 1. Philadelphia, PA: Leary, Stuart Co., 1927.

Weigley, Russell F., ed. *Philadelphia: A 300-Year History*. New York, NY: W.W. Norton & Company, 1982.

Wertkin, Gerald C. *Encyclopedia of American Folk Art*. New York, NY: Routledge, 2004.

Wilson, James Grant and John Fiske, eds. *Appleton's Cyclopedia of American Biography*, Vol. 1. New York, NY: D. Appleton & Company, 1888.

Wilson, Thomas. *Picture of Philadelphia, for 1824*. Philadelphia, PA: Thomas Town, 1823

Wister, Sally. *Sally Wister's Journal: A True Narrative*. Carlisle, MA: Applewood Books, 1995, first pub. 1902.

Wulf, Andrea. *The Brother Gardeners*. New York, NY: Alfred A. Knopf, 2008.

Zucker, Paul. *Town and Square from the Agora to the Village Green*. New York, NY: Columbia University Press, 1959.

Unpublished Sources

"Advisory Council Meeting, Philosophical Hall," 13 December 1954.

"Report of the Commissioners of Fairmount Park for the Year 1916," 1917.

Wolf, Emily Lynn. "Architecture Tells the Story: G. Edwin Brumbaugh and His Contributions to the Field of Restoration Architecture." Master's thesis, University of Pennsylvania, 2008.

Cultural Resource Studies

Campbell, J. Duncan. "Report on Excavations, Washington Square, Philadelphia, Pa." 12-20 November 1956.

Feller, Laura J. "Report on Washington Square, Philadelphia, Pennsylvania: Its Eligibility for Designation as a National Historic Landmark." National Park Service, History Division, 1984.

Independence National Historical Park, The Olmsted Center for Landscape Preservation, and The Denver Service Center. "Cultural Landscape Report, Independence Square, Volume Two," March 1998.

John Milner Associates, Inc. "An Archaeological Investigation of Washington Square, Philadelphia, Pennsylvania." Prepared for The Delta Group by Thomas A.J. Crist and Daniel G Roberts, 1996.

John Milner Associates, Inc., Daniel G. Roberts and Tod L. Benedict. "Archeological Supervision and Monitoring of Restoration Activities at Washington Square, Philadelphia, PA." Philadelphia, PA: Tony DePaul and Son for the Fairmount Park Commission, 2000.

LaRuffa, Courtney. "A Cultural and Architectural History of Fairmount Park's Guard Boxes." August 2002.

LaRuffa, Courtney. "Guard Box Chronology," August 2002.

Lubar, Jason. "Washington Square, Philadelphia, Oak Tree Assessment Report." Morris Arboretum of the University of Pennsylvania, 12 February 2010.

Olmsted Center for Landscape Preservation. "Condition Assessment of Trees, Independence National Historical Park, Washington Square." National Park Service, Olmsted Center for Landscape Preservation, 2008.

Rabzak, Denise, National Park Service, Independence National Historical Park. "Washington Square in Historic Society Hill Philadelphia; A Site Plan Chronology, 1683-1984," May 1987.

Toogood, Anna Coxe, Historian, National Park Service, Independence National Historical Park. "Cultural Landscape Report, Independence Square, Volume One, Historical Narrative," 2004.

University of Maryland Cultural Systems Analysis Group (CuSAG) for INHP, Tony Whitehead, Ph.D. Director of CuSAG. "Ethnographic Overview and Assessment of Independence National Historical Park," 1 September 2002.

Vaux, Trina. "National Register of Historic Places Inventory-Nomination Form, The Four Public Squares of Philadelphia," 1981.

Woloson, Wendy A., Ph.D. for the History Branch, Cultural Resources Management Division, Independence National Historical Park, National Park Service, U.S. Department of the Interior. "Washington Square: Bibliography of Source Material," March 2000.

Planning Documents

Borski, Karen Lloyd, Superintendent, Independence National Historical Park (Grantee) and Robert N.C. Nix III, City of Philadelphia, Fairmount Park Commission (Grantor). "Independence National Historical Park, Washington Square Easement," 18 May 2005.

Independence National Historical Park, Interpretation and Visitor Services. "Independence National Historical Park, Long-Range Interpretive Plan," December 2007.

Lillie, Charisse and Manuel Lujan, Jr., William Mifflin, Andres Perez, Isadore A. Shrager. "Memorandum of Understanding Between United States Department of the Interior and City of Philadelphia, Pennsylvania Through the Fairmount Park Commission, Agreement Number MU-SECY-1-9001," 25 November 1991. Subsequent Amendments 1-4 dated 19 April 1993, 26 January 2001, 23 December 2002, and 25 September 2003.

Nelson, John, Intern, Independence National Historical Park. "Survey of Washington Square Plaques & Waysides," January 2006.

United States Department of the Interior, National Park Service. "Draft General Management Plan Environmental Impact Statement, Independence National Historical Park; Philadelphia, Pennsylvania," August 1995.

APPENDIX A

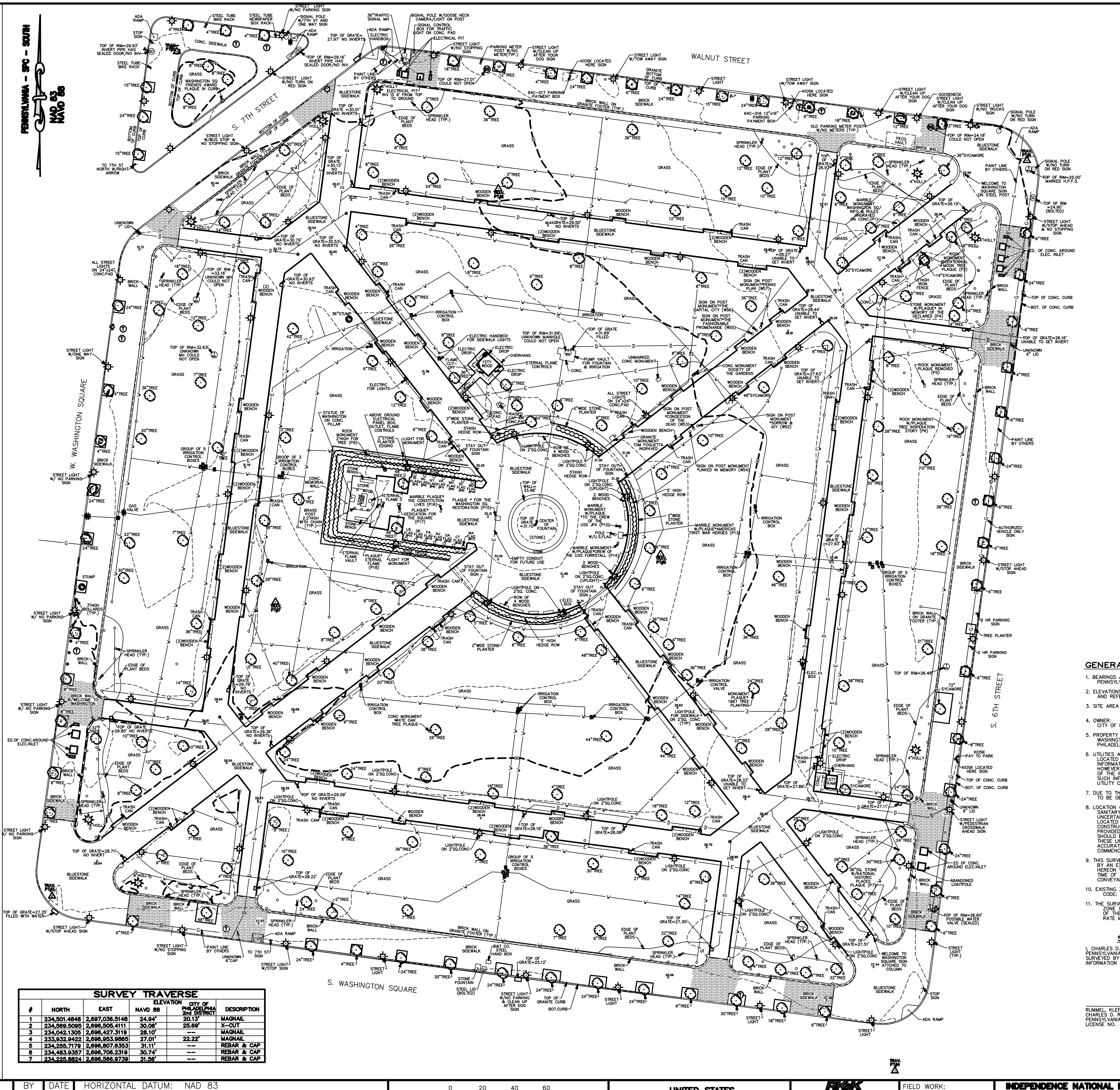
SITE SURVEY
JUNE 4, 2010

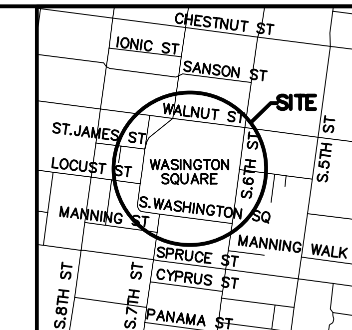
NOTES

MONUMENTS

NAME: "NORRISTOWN" NORRISTOWN, PA
DESCRIPTION: CARON-EAST RTK REFERENCE NETWORK STATION

LAT: 40° 07' 34.52007" N
LONG: 75° 24' 17.53740" W
ELL HT: 37.5560 m





VICINITY MAP
NOT TO SCALE

SURVEY LEGEND

- TREE D" = DIAMETER AT BREAST HEIGHT
- GAS MANHOLE
- STORM DRAIN MANHOLE
- SAN. SEWER MANHOLE
- TELEPHONE MANHOLE
- ELECTRIC MANHOLE
- UNKNOWN MANHOLE
- GAS METER
- ELECTRIC METER
- WATER METER
- WATER VALVE
- GAS VALVE
- FIRE HYDRANT
- LIGHT POLES
- ELECTRIC POLE
- SIGN
- SURVEY TRAVERSE
- CLEANOUT
- BOLLARD
- HANDBOX
- HANDICAPPED
- ELECTRIC
- GAS
- STORM DRAIN
- TELEPHONE
- WATER
- CONDUIT FOR FUTURE USE

GENERAL NOTES:

1. BEARINGS AND COORDINATES AS SHOWN HEREON ARE BASED ON THE PENNSYLVANIA SOUTH GRID MERIDIAN, NAD 83
2. ELEVATIONS AS SHOWN HEREON ARE BASED ON GPS OBSERVATIONS AND REFERENCE NAVD 88.
3. SITE AREA AS SURVEYED 7.50 ACRES +\- (326,630 SQ.FT. +\-)
4. OWNER: CITY OF PHILADELPHIA; NPS EASEMENT
5. PROPERTY ADDRESS: WASHINGTON SQUARE PHILADELPHIA, PA 19106-3514
6. UTILITIES AND OTHER OBSTRUCTIONS AS SHOWN HEREON HAVE BEEN LOCATED BY ACTUAL FIELD MEASUREMENTS SUPPLEMENTED BY INFORMATION OBTAINED FROM THE VARIOUS AGENCIES INVOLVED. HOWEVER, WE DO NOT GUARANTEE THE ACCURACY OR THE COMPLETENESS OF THE INFORMATION RECEIVED. THE CONTRACTOR MUST VERIFY ALL SUCH INFORMATION TO HIS OWN SATISFACTION AND MUST NOTIFY THE UTILITY COMPANIES INVOLVED PRIOR TO THE START OF THE WORK.
7. DUE TO THE GRATE CONSTRUCTION, INVERT MEASUREMENTS WERE UNABLE TO BE OBTAINED FOR ALL INLETS.
8. LOCATION OF INDIVIDUAL ELECTRIC, TELEPHONE, GAS, WATER, AND SANITARY SEWER SERVICE CONNECTIONS AS SHOWN HEREON ARE UNCERTAIN. THE LOCATION OF SAID CONNECTIONS HAS BEEN FIELD LOCATED WHERE POSSIBLE, BUT IN CASES WHERE THE LINES HAVE BEEN CONSTRUCTED AND PAVED OVER THE CONNECTIONS SHOWN ARE BASED ON PROVIDED DRAWINGS OR AN ESTIMATION OF POSSIBLE LOCATION. SHOULD EXCAVATION BECOME NECESSARY FOR MAINTENANCE OR REPAIR OF THESE LINES, IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCURATELY DETERMINE THE LOCATION OF THESE LINES BEFORE COMMENCING WORK.
9. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE SEARCH BY AN EXPERT TITLE ABSTRACTOR. THE TITLE INFORMATION SHOWN HEREON WAS DERIVED FROM THE BEST AVAILABLE LAND RECORDS AT THE TIME OF THE SURVEY. A TITLE REPORT COULD REVEAL ADDITIONAL CONVEYANCES, EASEMENTS, OR RIGHTS-OF-WAY NOT SHOWN HEREON.
10. EXISTING ZONING CLASSIFICATION: CODE: REC
11. THE SURVEYED PREMISES AS INDICATED HEREON IS LOCATED WITHIN A ZONE X. AREAS DETERMINED TO BE AREAS OF 0.2% ANNUAL CHANCE FLOODPLAIN OF THE 100-YEAR FLOOD PLAIN, AS INDICATED ON FEMA FLOOD INSURANCE RATE MAP NO. 4207570184G, DATED JANUARY 17, 2007

SURVEYOR'S CERTIFICATION

I, CHARLES D. RHOADS, A PROFESSIONAL LAND SURVEYOR OF THE STATE OF PENNSYLVANIA, DO HEREBY CERTIFY THAT THE LAND SHOWN HEREON HAS BEEN SURVEYED BY RUMMEL, KLEPPER, & KAHL, LLP AND TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF MEETS ALL OF THE REQUIREMENTS AS CONTRACTED BY

PRESSLEY ASSOCIATES

RUMMEL, KLEPPER, & KAHL, LLP
CHARLES D. RHOADS
PENNSYLVANIA PROFESSIONAL LAND SURVEYOR
LICENSE NO. SU017584-E

DATE

UNDERGROUND UTILITY LOCATIONS SHOWN ARE BASED UPON VARIOUS RECORD UTILITY MAPS IN CONJUNCTION WITH VISIBLE EVIDENCE GATHERED DURING THE TIME THE FIELD SURVEY WAS PERFORMED. THEREFORE, ALL UNDERGROUND UTILITY LOCATIONS SHOULD BE FIELD VERIFIED PRIOR TO CONSTRUCTION.

THIS DRAWING ONLY REFLECTS AND VERIFIES THE FIELD SURVEY DATA OF THOSE FEATURES AND CONDITIONS PRESENT AS OF 12/30/2009

SURVEY TRAVERSE

#	NORTH	EAST	ELEVATION NAVD 88	ELEVATION CITY OF PHILADELPHIA 2nd DISTRICT	DESCRIPTION
1	234,501.4848	2,697,036.5148	24.94'	20.13'	MAGNAIL
2	234,569.5095	2,696,505.4111	30.06'	25.69'	X-CUT
3	234,042.1305	2,696,427.3119	28.10'	---	MAGNAIL
4	233,932.9422	2,696,953.9865	27.01'	22.22'	MAGNAIL
5	234,255.7179	2,696,807.6353	31.11'	---	REBAR & CAP
6	234,483.9357	2,696,706.2319	30.74'	---	REBAR & CAP
7	234,225.8824	2,696,566.9739	31.56'	---	REBAR & CAP

REVISIONS	BY	DATE
1. GENERAL REVISIONS BASED ON SURVEY COMMENT RESPONSE LETTER PREPARED BY PRESSLEY, INC. DATED APRIL 7, 2010.		6/04/10

HORIZONTAL DATUM: NAD 83
VERTICAL DATUM: NAVD 88 (GPS) (SEE GENERAL NOTE NO. 2)

0 20 40 60
SCALE: 1" = 20'
GRAPHIC SCALE
CONTOUR INTERVAL = 1'

UNITED STATES DEPARTMENT OF THE INTERIOR
INDEPENDENCE NATIONAL HISTORICAL PARK

RK&K
RUMMEL, KLEPPER & KAHL, LLP
Engineers | Construction Managers | Planners | Scientists
81 Mosher Street Baltimore MD 21217-4250 PH.410-728-2900
PROJECT NO. 109-174-01

FIELD WORK: CDM
DRAWN: RSD/KK
CHECKED: GJT/CDR

INDEPENDENCE NATIONAL HISTORICAL PARK
WASHINGTON SQUARE
TOPOGRAPHIC SURVEY
COUNCIL DISTRICT 1 WARD 5
PHILADELPHIA, PA 19106

PMIS NO. 105743
SHEET 1 OF 1
DRAWING NO. 391/101,017

FILE NAME: N:\09041.00 Washington Sq CLR\Washington Sq CLR\September 2010 Submittal\Final survey and tree inventory\WS CLR 07-13-10 FINAL AutopTO-C000-WashingtonSq-1-PRESSLEY.dwg LAYOUT NAME: Layout1 PLOTTED: Wednesday, February 23, 2011 - 9:17am USER: scody

APPENDIX B

MEMORANDUM OF UNDERTSANDING
NOVEMBER 25, 1991

AGREEMENT NUMBER MU-SECY-1-9001

MEMORANDUM OF UNDERSTANDING

BETWEEN

UNITED STATES DEPARTMENT OF THE INTERIOR

AND

CITY OF PHILADELPHIA, PENNSYLVANIA

THROUGH THE

FAIRMOUNT PARK COMMISSION

ARTICLE I. BACKGROUND AND OBJECTIVES

This Memorandum of Understanding (hereinafter referred to as the Agreement) is made by and between the United States of America, acting in this behalf by the Secretary (hereinafter referred to as the Secretary), United States Department of the Interior (hereinafter referred to as the Department), party of the first part and the City of Philadelphia, Pennsylvania (hereinafter referred to as the City), acting in this behalf by the Fairmount Park Commission (hereinafter referred to as the Commission), party to the second part:

WITNESSETH:

Whereas, the Congress of the United States authorized Independence National Historical Park (hereinafter referred to as INDE) by "Act of June 28, 1948, "PL 80-795, 62 STAT 1061, 16 USC 407m et seq for the purpose of preserving, for the benefit of the American people, historical structures and properties of national significance associated with the American Revolution and the founding and growth of the United States, and

Whereas, this Act, Sec. 5, 16 USC 407q, further specifies that INDE will be managed under the provisions of 16 USC 1-4 and 16 USC 461-467, and,

Whereas, this Act. Sec. 3, 16 USC 407o, authorizes the Secretary "...to accept donations of property of national historical significance located in the city of Philadelphia which the Secretary may deem proper for administration as part of the Independence National Historical Park. Any property donated for the purposes of this section shall become part of the park, following its establishment, upon acceptance by the United States of title to such donated property," and,

Whereas, INDE was established on July 4, 1956 by the Secretary with a Federal Register notice on May 12, 1957, FR 57-1828, and,

Whereas, the Historic Sites Act of August 21, 1935, 49 STAT 666, 16 USC 461-467, in Sec. 2(d) of the Act, 16 USC 462(d), authorizes the Secretary to"...acquire in the name of the United States by gift, purchase, or otherwise any property, personal or real, or any interest or estate therein, title to any real property to be satisfactory to the Secretary: Provided, that no such property which is owned by any religious or educational institution, or which is owned or administered for the benefit of the public shall be so acquired without the consent of the owner: Provided, further, that no such property shall be so acquired without the consent of the owner. Provided further, that no such property shall be acquired or contract or agreement for the acquisition thereof made which will obligate the general fund of the Treasury for the payment of such property, unless or until Congress has appropriated money which is available for that purpose", and,

Whereas, in Sec. 2(e) of the Historic Sites Act, 16 USC 462(e), the Secretary is authorized to "Contract and make cooperative agreements with States, municipal subdivisions, corporations, associations, or individuals, with proper bond where deemed advisable, to protect, preserve, maintain, or operate any historic or archaeological building, site, object, or property used in connection therein for public use, regardless as to whether the title thereto is in the United States: Provided, that no contract or cooperative agreement shall be made or entered unto which will obligate the general fund of the Treasury unless or until Congress has appropriated money for such purpose", and,

Whereas, by authority of the Act of June 28, 1948, a City Ordinance of May 24, 1950, and a Memorandum of Agreement with the City of Philadelphia of July 14, 1950, INDE manages Independence Square and other property in which the City of Philadelphia retains an ownership interest, and,

Whereas, the Commission approved this agreement at their meeting on May 8, 1991, and

Whereas the City of Philadelphia's City Council passed Bill #1478 which the Mayor signed on July 10, 1991, authorizing the Commission (and the Commissioner of Public Property) to transfer an easement (or an interest) in Washington Square (defined below) to INDE under the terms and conditions of this Agreement; and,

Whereas, Washington Square (hereinafter referred to as WS) is a city block in the city of Philadelphia, bounded by 6th Street, Washington Square West, Walnut Street, and Washington Square South including the small triangle of land bounded by Walnut Street, Washington Square West and 7th Street, and,

Whereas, WS is one of the original squares in the 1682 plan for the City of Philadelphia as designed for William Penn, and

Whereas, WS is the site of a burial ground for soldiers of the American Revolution, and

Whereas a Tomb of the Unknown Soldier of the American Revolution is located on WS, and

Whereas, the National Park Service (hereinafter referred to as the Service or NPS) manages Independence Square as part of INDE and Independence Square is diagonally across the street from WS, and

Whereas, there is synergistic relationship between the two squares wherein WS augments the historical themes of Independence Square, and

Whereas, the Secretary and the Commission wish to work together to foster and expand the historical theme opportunities of INDE and preserve, protect, interpret and maintain WS particularly as it relates to the history of the American Revolution.

Now, therefore, in consideration of the foregoing and pursuant to the authorities cited in the foregoing, the said parties have covenanted and agreed, and by these presents do covenant and agree to and with each other and on consideration of the mutual promises herein expressed, as follows:

ARTICLE II. RESPECTIVE ROLES AND RESPONSIBILITIES

A. The Secretary hereby agrees to:

1. add WS to INDE only when, as, and if all of the following conditions are met to the satisfaction of the Secretary:

   a. WS is restored, repaired and rehabilitated to his satisfaction,

   b. The addition of WS to INDE will be accomplished when the Secretary issues a notice declaring that the requirements for inclusion have been met and that WS is formally designated a unit of INDE; and

2. manage, maintain, operate, protect and interpret WS as a part of INDE after the Secretary adds WS to INDE as described in II.A.1.b. above.

B. The Commission hereby agrees to:

1. permit a third party under license agreement with the Commission, to restore, repair, and rehabilitate (hereinafter referred to as the Repairs) WS to the satisfaction of the Secretary, the Repairs are currently estimated by the NPS to cost $3,500,000; all Repairs must receive the prior written approval of all city departments, agencies, boards and commissions having jurisdiction over such Repairs;

2. donate WS to INDE by means of an easement acceptable to the Secretary on the aforesaid WS, which is owned by the City of Philadelphia;

3. relinquish authority over WS to INDE at such time as the Secretary adds WS to INDE except that INDE must obtain the Commission's approval for any capital improvements or structural changes;

4. the City of Philadelphia will provide the following services for WS without cost to the United States of America: electricity, natural gas, water and sewer, curbside garbage collection of bagged trash or receipt of hauled trash at a City collection point, and police services comparable to those provided to the surrounding community, and

C. It is mutually understood and agreed by the parties hereto that:

1. neither the City, the Commission, nor the Service will pay for any costs of planning, compliance, and construction of the Repairs but that such costs will be paid by an approved third party entity;

2. the Commission may recognize a third party entity which shall raise and manage funds and carry out other functions to accomplish the goals of this Agreement;

3. such a third party shall be incorporated in the Commonwealth of Pennsylvania as a non-profit organization;

4. the third party must be acceptable to the Secretary;

5. the third party shall become a party to this Agreement by means of an amendment to this Agreement;

6. the third party shall not represent themselves as an agent or representative of the Secretary, the Service, INDE, the Commission, or the City;

7. the minimum Repairs and new improvements include: restoration, repair, rehabilitation, and establishment of walks, brick walls, piers, natural gas line and service, irrigation, underground utility station, tree care and replacement, relandscaping, lawn renovation, interpretive and entrance signs, and other needs. This work will be performed to the satisfaction of the Secretary;

8. all restoration, repair and rehabilitation of WS shall be based on a plan for WS to be developed by either the Commission, a third party, or the Service. The plan and the planning process shall be in full compliance with Service policies, procedures and guidelines for site planning and compliance reviews and documentation. All improvements - that is restoration, repair, rehabilitation, and new development - whether done by the Commission, a third party, or the Service, shall meet Service standards and be approved by the Service prior to accomplishment;

9. the Commission or a third party may direct all planning, compliance, and construction or provide the funds to the Service to direct all planning, compliance, and construction subject to II.B.1 and II.C;

10. by mutual agreement the commission, a third party, or the Service may carry out pre-construction planning prior to the availability of the full level of funding needed for the improvement and repair of WS;

11. major restoration, rehabilitation and repair shall not take place without the availability of a plan approved by the Service and the Commission with supporting compliance documents as needed, and;

12. all important actions prior to the transfer of WS to INDE, but particularly those which involve planning, capital improvements and spending for such improvements, shall be taken only after the joint approval of amendments to this Agreement which actions shall be described therein.

ARTICLE III - TERM OF AGREEMENT

This Agreement shall become effective upon its execution by both parties. It shall continue in effect for ten years. However, this Agreement may be terminated by either party in writing with 90 days notice.

If after ten (10) years, WS has not been added to INDE, this Agreement is terminated.

If any time during this Agreement WS is added to INDE, this Agreement will remain in effect in perpetuity.

ARTICLE IV - KEY OFFICIALS

The key official representing the Secretary will be the Superintendent of Independence National Historical Park. The key official for the Commission will be its Executive Director.

ARTICLE V - PROPERTY UTILIZATION

Not applicable.

ARTICLE VI - PRIOR APPROVAL

Items requiring verbal or written approval are identified in various articles of this Agreement. Such prior approvals shall be secured by all parties in a timely manner.

ARTICLE VII - REPORTS

All parties agree to provide to each other and others such written material, reports, and so forth as may be necessary because of this Agreement. Such reports and other material shall be provided by all parties in a timely manner.

ARTICLE VIII - TERMINATION

This Agreement and its amendments may be terminated by either party as provided for in this Agreement.

ARTICLE IX - REQUIRED CLAUSES AND SPECIAL PROVISIONS

1. This Agreement is not transferrable.

2. Should this Agreement be terminated, all assets of a third party associated with this Agreement shall continue to be owned by the party in which ownership is vested except that funds collected for the improvement and operation of WS shall be transferred to an entity designated by the Commission and used for the care of WS.

3. Should a third party to this Agreement terminate its existence or be terminated by a court, all property and assets at the time of its termination shall be disposed of in the following manner:

   After payment or making provision for payment of lawful debts of the third party and the expenses of its dissolution or termination, the third party shall deliver, convey, and pay over, such property and assets as remains to the Commission or its designee for exclusively public purposes associated with WS. Such property and assets which are not acceptable shall be delivered, conveyed and paid over to such one or more qualified organizations as may be ordered by the court having jurisduction of the dissolution and liquidation of the corporation, pursuant to the appropriate subchapter of Chapter 74 of Title 15 of the Consolidated Pennsylvania Statues.

Further, all rights of a third party shall terminate upon the filing of: (1) a petition in bankruptcy court by or against it; (2) a petition seeking a reorganization, composition, liquidation, dissolution or other relief of the same or different kind under any provision of the Bankruptcy Act; (3) an assignment for the benefit of creditors; (4) a petition or other proceeding against the third party for the appointment of a trustee, receiver or liquidator; and such proceedings in bankruptcy or such receivership shall continue unstayed and in effect for a period of ninety (90) days, or (5) the taking by any person of the interest of a third party, if any, created hereby or any part thereof upon execution, attachment, or other process of law of equity.

4. During the performance of the Agreement, all parties agree to abide by the terms of Executive Order #11246 on non-discrimination and will not discriminate against any person because of race, color, religion, sex, or national origin. All parties will take affirmative action to ensure that applicants are employed without regard to their race, color, religion, sex, or national origin.

5. No member of delegate to Congress, or resident Commissioner shall be admitted to any share of this Agreement, or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this Agreement if made with a corporation for its benefit.

6. Nothing herein contained shall be construed as binding the Service to expend in any one fiscal year any sum in excess of appropriations made by Congress or administratively allocated for the purpose of this Agreement for the fiscal year, or to involve the Service in any contractor other obligation for the further expenditure of money in excess of such appropriations or allocations.

7. Nothing herein contained shall be construed as binding the City to expend in any one fiscal year any sum in excess of appropriations made by City Council or administratively allocated for the purpose of the Agreement for the fiscal year, or to involve the City in any contract or other obligation for the further expenditure of money in excess of such appropriations or allocations.

8. The actions authorized by this Agreement shall be subject to the laws of the United States governing the Service and to the rules and regulations promulgated thereunder, whether now in force or hereafter enacted or provided and nothing herein shall be construed as in any way impairing the general powers of supervision, regulation and control by the NPS of property under its ownership or control including WS if and when it is added to INDE.

9. Fund raising and philanthropy activities of a third party and its representatives and agents, which are or may be construed to be associated with or for the benefit of the Service or WS are subject to the prior review and approval of the Service.

10. This instrument constitutes the entire Agreement between the parties hereto. Any modification, alteration or amendment shall be executed in writing.

SIGNATURES

This Agreement shall become effective upon its execution by both parties.

In Witness Whereof, the parties hereto have subscribed their names on the date, month and year affixed.

UNITED STATES OF AMERICA

BY: _____
SECRETARY OF THE INTERIOR

DATE: 11/25/91

FAIRMOUNT PARK COMMISSION
CITY OF PHILADELPHIA

BY: _____
PRESIDENT (VICE)

DATE: 11/25/91

BY: _____
EXECUTIVE DIRECTOR

DATE: 11/25/91

CITY OF PHILADELPHIA

BY: _____
COMMISSIONER, DEPARTMENT
OF PUBLIC PROPERTY

DATE: 11/25/91

APPROVED AS TO FORM

BY: _____
CITY SOLICITOR

DATE: 11/25/91

Manuel Lujan, Jr.
Secretary of the Interior
November 25, 1991

Isadore A. Shrager
Vice President
Fairmount Park Commission
November 25, 1991

William Mifflin
Executive Director
Fairmount Park Commission
November 25, 1991

Andres Perez
Commissioner, Public Property
November 25, 1991

Charisse Lillie
City Solicitor
November 25, 1991

Amendment #1 to
Memorandum of Understanding,
Agreement Number MU-SECY-9001
Dated: November 25, 1991
Between
United States Department of Interior
and
City of Philadelphia, PA,
Through the
Fairmount Park Commission

In accordance with Article II.C.2. of this Memorandum of Understanding (hereinafter referred to as the MOU), the American Revolution Patriots Fund, a Pennsylvania non-profit Corporation, has been recognized by the Fairmount Park Commission as the third party entity which shall raise and manage funds and carry out other functions to accomplish the goals of the MOU.

With this Amendment #1, and as required by Article II.C.4. of the MOU, the Secretary of Interior approves the American Revolution Patriots Fund as the third party entity under the MOU.

With this Amendment #1, in accordance with Article II.C.5, the American Revolution Patriots Fund is now a party to the MOU.

All other terms and conditions of the original MOU remain unchanged.

This amendment shall become effective upon its execution by all parties. In witness whereof, the parties hereto have subscribed their names on the date, month, and year affixed.

CITY OF PHILADELPHIA,
FAIRMOUNT PARK COMMISSION

APPROVED AS TO FORM
JUDITH E. HARRIS, CITY SOLICITOR
PGr _____
SENIOR ATTORNEY

BY: _____
EXECUTIVE DIRECTOR

DATE: 1/14/93

AMERICAN REVOLUTION PATRIOTS FUND

BY: Marguerite L. Henderson
PRESIDENT

DATE: Jan. 15, 1993

UNITED STATES OF AMERICA

BY: _____
SECRETARY OF THE INTERIOR

DATE: APR 19 1993

Amendment #2 to
morandum of Understanding,
Agreement Number MU-SECY-9001
Dated: November 25, 1991
Between
United States Department of the Interior
And
City of Philadelphia, PA,
Through the Fairmount Park Commission
And
American Revolution Patriots Fund

THIS AGREEMENT made and entered into by and between the United States of America, acting by and through the Secretary of the Interior (Secretary), the City of Philadelphia, acting by and through the Fairmount Park Commission (Commission), and the American Revolution Patriots Fund (Fund).

WHEREAS, the Secretary, the Commission, and the Fund entered into a Memorandum of Understanding (MOU) dated November 25, 1991; and

WHEREAS, the said was amended by Amendment No. 1 dated April 19, 1993; and:

WHEREAS, Article III of the said MOU established that if after ten (10) years, Washington Square (WS) has not been added to Independence NHP, the said MOU would be terminated; and

WHEREAS, a one (1) year extension of the term of the said MOU will allow sufficient time for the Commission to complete all of the restoration, repair, and rehabilitation work of Washington Square that has been agreed to by the three parties, for the Secretary of the Interior to evaluate those repairs to ensure that the same are to his satisfaction in accordance with Article II.A.a.of the MOU, and for the Secretary to formally designate Washington Square as a unit of Independence National Historical Park in accordance with Article II.A.b. of the said MOU.

NOW THEREFORE, in consideration of the foregoing, the parties hereto agree to that the said MOU hereby amended as follows:

In the second paragraph of Article III substitute the word "eleven(11)" for the word "ten (10)."

In all other respects the said MOU, as amended, is hereby ratified and confirmed. This amendment shall become effective upon its execution by all parties.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be executed by their authorized representatives who have hereunder subscribed their names.

PHILADELPHIA
JUNT PARK COMMISSION

By: _____
Executive Director

Date: 12/04/00

AMERICAN REVOLUTION
PATRIOTS FUND

By: Marguerite L. Flounders
President

Date: Nov. 1, 2000

UNITED STATES OF AMERICA

By: _____
Acting Secretary of the Interior

Date: January 16, 2001

Amendment # 3 to
Memorandum of Understanding
Agreement Number MU-SECY-9001
Dated: November 25, 1991
Between
United States Department of the Interior
And
City of Philadelphia, PA
Through the Fairmount Park Commission
And
American Revolution Patriots Fund

THIS AGREEMENT made and entered into by and between the United States of America, acting by and through the Secretary of the Interior (Secretary), the City of Philadelphia, acting by and through the Fairmount Park Commission (Commission), and the American Revolution Patriots Fund (Fund).

WHEREAS, the Secretary, the Commission and the Fund entered into a Memorandum of Understanding (MOU) dated November 25, 1991; and

WHEREAS, the said was amended by Amendment No. 1 dated April 19, 1993; and

WHEREAS, the said was amended by Amendment No. 2 dated January 25, 2001; and

WHEREAS, Article III of the said MOU established that if after ten (10) years, Washington Square (WS) has not been added to Independence NHP, the said MOU would be terminated; and

WHEREAS, Amendment No. 2 modified Article III of the said MOU to extend the period for Washington Square to be added to Independence NHP by one (1) year; and

WHEREAS, an additional extension of eighteen (18) months of the term of the said MOU, as amended, will allow sufficient time for the Commission to complete all of the restoration, repair and rehabilitation work of Washington Square that has been agreed to by the three parties, for the Secretary of the Interior to evaluate those repairs to ensure that the same are to her satisfaction in accordance with Article II.A.a of the MOU, and for the Secretary to formally designate Washington Square as a unit of Independence National Historical Park in accordance with Article II.A.b of the said MOU.

NOW THEREFORE, in consideration of the foregoing, the parties hereto agree to that the said MOU hereby as follows:

In the second paragraph of Article III, substitute the phrase "twelve and one half" for the word "eleven".

In all other respects the said MOU, as amended, is hereby ratified and confirmed. This amendment shall become effective upon its execution by all parties.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be executed by their authorized representatives who have hereunder subscribed their names.

CITY OF PHILADELPHIA
FAIRMOUNT PARK COMMISSION

By: _____
Executive Director

Date: 1/13/03

AMERICAN REVOLUTION
PATRIOTS FUND

By: _____
President

Date: JAN 9 - 2003

UNITED STATES OF AMERICA

By: _____
Secretary of the Interior

Date: DEC 23 2002

Amendment # 4 to
Memorandum of Understanding
Agreement Number MU-SECY-9001
Dated: November 25, 1991
Between
United States Department of the Interior
And
City of Philadelphia, PA
Through the Fairmount Park Commission
And
American Revolution Patriots Fund

THIS AGREEMENT made and entered into by and between the United States of America, acting by and through the Secretary of the Interior (Secretary), the City of Philadelphia, acting by and through the Fairmount Park Commission (Commission), and the American Revolution Patriots Fund (Fund).

WHEREAS, the Secretary, the Commission and the Fund entered into a Memorandum of Understanding (MOU) dated November 25, 1991; and

WHEREAS, the said MOU was amended by Amendment No. 1 dated April 19, 1993; and

WHEREAS, the said MOU was amended by Amendment No. 2 dated January 26, 2001; and

WHEREAS, the said MOU was amended by Amendment No. 3 dated December 23, 2002; and

WHEREAS, Article III of the said MOU provided that if after ten (10) years, Washington Square (WS) has not been added to Independence NHP, the said MOU would be terminated; and

WHEREAS, Amendment No. 2 modified Article III of the said MOU to extend the period for Washington Square to be added to Independence NHP by one (1) year; and

WHEREAS, Amendment No. 3 modified Article III of the said MOU to extend the period for Washington Square to be added to Independence NHP by an additional eighteen (18) months; and

WHEREAS, the Commission has completed restoration, repair and rehabilitation work of Washington Square, and the Secretary of the Interior has evaluated those repairs and determined them to be to her satisfaction in accordance with Article II.A.a of the MOU;

NOW THEREFORE, in consideration of the foregoing, the parties hereto agree to that the said MOU amended hereby as follows:

In accordance with Article II.B.2, in anticipation of the donation by the City of Philadelphia to the United States of

America by an easement acceptable to the Secretary for the use and occupancy of Washington Square, and in accordance with Article II.A.1.b, in anticipation of the declaration by the Secretary that the requirements for inclusion have been met and that Washington Square is formally designated a unit of INDE, the parties hereby agree to undertake the responsibilities delineated in Article II.A.2 and II.B.4 of this Memorandum of Understanding effective from the date of the last signature to this Amendment until the expiration of the term of this agreement, or until satisfaction of the conditions set forth in Article III, whichever comes first.

Should the Commission fail to accomplish the donation of Washington Square by easement within the agreed upon timeframes, this amendment will become void and the NPS would be relieved of any responsibilities it assumed on an interim basis.

In all other respects the said MOU, as amended, is hereby ratified and confirmed. This amendment shall become effective upon its execution by all parties.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be executed by their authorized representatives who have hereunder subscribed their names.

CITY OF PHILADELPHIA
FAIRMOUNT PARK COMMISSION

By: _____
Executive Director

Date: MAR 09 2004

AMERICAN REVOLUTION
PATRIOTS FUND

By: _____
President

Date: March 10, 2004

UNITED STATES OF AMERICA

By: _____
Secretary of the Interior

Date: SEP 25 2003

United States Department of the Interior

NATIONAL PARK SERVICE
P.O. BOX 37127
WASHINGTON, D.C. 20013-7127

TAKE PRIDE IN AMERICA

IN REPLY REFER TO:

MAR 8 1993

Memorandum

To: Chief of Staff

Through: Acting Assistant Secretary for Fish and Wildlife and Parks

MAR 11 1993

From: Acting Director, National Park Service

Subject: Supplemental Agreement, Requiring Secretarial Signature, Transferring Washington Square to Independence National Historical Park

On November 25, 1991, the Secretary of the Interior signed a Memorandum of Understanding (MOU), copy attached, with the City of Philadelphia, through the Fairmount Park Commission (Commission), which provides for the transfer of Washington Square (WS) to Independence National Historical Park once it is restored, repaired, and rehabilitated to the Secretary's satisfaction.

As part of the MOU, it was mutually understood by the Department and the City that a third party could be recognized by the Commission to raise and manage funds and carry out other functions to accomplish the goals of the agreement.

By letter dated January 5, 1993 (copy attached), the Commission has recognized the American Revolution Patriots Fund (ARPF) as the third party fund raiser under the MOU. The MOU also requires that the third party also be acceptable to the Secretary of the Interior, and that the third party shall become a party to the MOU by an amendment to the original agreement.

In order to accomplish the Secretary's approval and to incorporate the ARPF under the MOU, we have prepared Amendment #1 to MU-SECY-9001. This document, reviewed and approved by our Regional Solicitor, has already been signed by the Commission and only needs the signature of the Secretary to be finalized. Attached are three copies of the document. It is requested that these copies be returned after they are signed by the Secretary.

Attachments

A44(INDE)

November 26, 1991

Memorandum

To: Regional Director, Mid-Atlantic Region

From: Superintendent, Independence National Historical Park

Subject: Washington Square Memorandum of Understanding

On Monday, November 25, 1991, a ceremony was held at Washington Square for the signing of the Washington Square Memorandum of Understanding. I served as Master of Ceremonies, Congressman Thomas Foglietta made remarks, and Secretary of the Interior Manuel Lujan, Jr. gave the keynote address. After these speeches, the signings took place. Signing for the City of Philadelphia was Isadore M. Shrager, Vice President of the Fairmount Park Commission, William Mifflin, the Executive Director of the Fairmount Park Commission, Andres Perez, the Commissioner for Public Property, and Charisse Lillie, the City Solicitor. Signing for the United States of America was Secretary of the Interior Manuel Lujan, Jr.

Enclosed is a copy of the signed MOU for your files.

Martha B. Aikens

Enclosure

cc:	INDE:	Goodman, Blacoe, Reidenbach ✓	w/encl
	MARO:	MARO-Adm, MARO-Oper.	w/encl
	DOI:	Tony Conte, Regional Solicitor	w/encl
	WASO:	NPS, Contracting Policy Division ATTN: Jackie Bishop	

Copies to: Budget Analyst
Contract Specialist

United States Department of the Interior

NATIONAL PARK SERVICE
Northeast Region
United States Custom House
200 Chestnut Street
Philadelphia, PA 19106

IN REPLY REFER TO:

L1425(NER-LR)
INDE 04-113

June 7, 2005

To: Acting Superintendent, Independence NHP

From: Realty Officer, Northeast Region Land Resources

Subject: Notification of Closing

Title to the following parcel of land passed to the United States:

a. Tract Number: 04-113

b. Estate: Easement

c. Name and Address of Grantor: The City of Philadelphia
thru its Fairmount Park Commission
4231 N. Concourse Drive
Philadelphia, PA 19131

d. Location of Property: 600 Walnut Street
Philadelphia, PA 19106

e. Improvements: Vacant

f. Acreage: 6.64 acres

g. Date title passed: May 24, 2005

h. Probable Date Vendor
To Vacate Premises: N/A

i. Keys to Property: N/A

j. Consideration: Donation

k. Method of Acquisition: Donation

A copy of the recorded deed is enclosed for your information.

Pamela McLay

Enclosure

INDEPENDENCE NATIONAL HISTORICAL PARK

WASHINGTON SQUARE EASEMENT

THIS EASEMENT made this 18th day of May, 2005, by and between **THE CITY OF PHILADELPHIA, THROUGH ITS FAIRMOUNT PARK COMMISSION**, with an address at 4231 N. Concourse Drive, Philadelphia, PA 19131-3719, (hereinafter referred to as "Grantor"), and the **UNITED STATES OF AMERICA**, 1849 "C" Street, N.W., (Code 2540), Washington, D.C. 20240, (hereinafter referred to as the "Grantee").

WHEREAS, Public Law 80-795 passed by Congress on June 28, 1948, authorized the establishment of Independence National Historical Park and authorized the Secretary to accept donations of real estate interests; and

WHEREAS, the Grantor is the sole owner in fee simple of land known as Washington Square located within Independence National Historical Park designated as Tract 04-113, and more particularly described in Exhibit A, (hereinafter referred to as the "Protected Property," attached hereto and made a part hereof by this reference); and

WHEREAS, Bill No. 1478, approved July 10, 1991, authorizes the Commissioner of Public Property and the Executive Director of the Fairmount Park Commission to enter into an agreement with the United States Department of the Interior to transfer an easement in Washington Square for the Interior's management and operation of the square; and

WHEREAS, it is the desire of the Grantor and the Grantee to protect and maintain in perpetuity the significant features of the landscape, to aid and encourage efforts in the restoration and maintenance of all features of significance.

NOW THEREFORE, in consideration of ONE (1.00) DOLLAR and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Grantor does hereby grant and convey with general warranty covenants to the Grantee and its assigns, forever and in perpetuity, an exclusive and assignable easement over the premises described in Exhibit A, consisting of the right, but not the obligation, to protect, control, maintain, restore missing landscape features of significance, and manage the land described herein in accordance with federal laws and regulations pertaining to units of the National Park System, in connection with the operation, construction, management, development, use and maintenance of the land herein described, including the right to allow and control public access to the

This Document Recorded
05/24/2005
12:56PM

Doc Id: 51184381
Receipt #: 410413
Rec Fee: 74.50

property in accordance with the following rights, reservations and conditions, hereinafter referred to collectively as "the conditions":

A. Rights Conveyed.

The Grantee may enter upon the Protected Property for the purposes of management, development, construction, maintenance, restoration, monitoring, and other purposes.

The Grantee shall have the right to examine any Archeological Resources found on the property by the Grantor and determine its significance and the desire of the Grantee to retain such items. Any items that the Grantee does not deem significant and does not wish to retain shall be returned to the Grantor and shall become the property of the Grantor. The Grantee shall have a period of one hundred eighty (180) calendar days to examine any such remains or objects and shall notify the Grantor within that period of time as to whether the Grantee will retain the item. If no notice of the desire to retain the item is provided within said one hundred eighty (180) calendar days, the object shall become the property of the Grantor and shall be returned to the Grantor by the Grantee. If the Grantee desires to retain the item, the item shall become the property of the Grantee and the Grantee may, with the agreement of the Grantor, leave the item in place or at the sole election of the Grantee, remove the item from the Protected Property.

The Grantor shall not use or authorize, permit, or allow others to use a mineral or metal detector, magnetometer, side scan sonar, or other remote sensing device on the Protected Property for any purpose except as required for approved construction purposes. This does not apply to a device disassembled and stored or packed to prevent its use while on the Protected Property.

The Grantor shall not undertake any ground disturbing activities or authorize or allow others to undertake such activities, other than construction or maintenance related activities authorized and conducted in accordance with the provisions of this Easement.

B. Rights Reserved by the Grantor.

It is conclusively presumed that any and all rights and uses not specifically hereinafter reserved to the Grantor are vested in the United States of America, excepting from the operation of this easement only those rights, duties and obligations as may be specifically hereinafter set forth.

Reserving to the Grantor, its successors and assigns, only the following rights and uses:

1. The right to approve any capital improvements or structural changes to any existing buildings and monuments on the Protected Property but not including routine maintenance and improvements to grounds which may be undertaken by the Grantee without approval of the Grantor.

2. The right to maintain, repair and replace utility lines, to replace overhead utility lines with underground lines or to install new underground utility services including the right to excavate in connection with the rebuilding, replacement, restoration, construction, reconstruction, alteration or maintenance of (1) existing and permitted structures, (2) water sewerage, electric, telephone and other utility services provided to the Protected Property.

3. The right to enter the property for the purposes of public safety, in accordance with the restrictions set forth below.

4. All structural alterations to existing buildings and monuments shall be conducted in accordance with the notification and approval requirements otherwise set forth herein. No other filling, dumping, or excavation shall be made to the surface of the Protected Property (other than that required for routine maintenance, improvements to grounds or by the forces of nature) except as otherwise specifically permitted herein.

5. The reservations included herein are intended to allow for future use of the property by the Grantor, its successors and assigns which will not negatively impact the significant architectural, archeological, cultural landscape, or interpretive values of the site. In all cases, such values shall be carried out in accordance with the laws and regulations applicable to the National Park Service.

6. In the event of an emergency situation, such as non-functioning utilities, the Grantor shall immediately notify the Grantee what action is needed to remedy the problem. Maintenance, modification, alteration or reconstruction of any waste disposal system shall be done in accordance with state, county and local regulations. In emergency situations only, the Grantee shall have ten (10) working days to review and approve the proposed action. If the Grantee does not respond within ten (10) working days of notification, the Grantor may, at its own expense and without reimbursement from the Grantee, proceed with the work as outlined in the notification. To facilitate timely approval of emergency repairs, the Grantor shall maintain detailed plot plans showing

where utilities, water and septic/sewer lines have been installed or previously serviced. Said plot plans shall include a log listing dates and details of prior activities. If the Grantor plans to undertake non-emergency, ground disturbing activities, the Grantee or its assigns shall be notified at least one hundred eighty (180) calendar days in advance so that testing, mitigation or monitoring of the project by the Grantee may, at its sole discretion, be provided.

7. Notwithstanding the previous paragraph, the Grantor may, at its own expense and without reimbursement from the Grantee, take whatever emergency actions are necessary to protect and preserve public or private surrounding properties, and/or protect public health and safety. In all cases, all reasonable efforts will be made by the Grantor to notify the Grantee of whatever emergency situation has precipitated the need for such action, and to collaborate with the Grantee in the carrying out of such action.

8. The Grantor agrees to provide the following services for Washington Square without cost to the United States of America: electricity, natural gas, water and sewer, curbside garbage collection of bagged trash or receipt of hauled trash at a City collection point, and police services comparable to those provided to the surrounding community.

C. Baseline Data

In order to establish the present condition of the Protected Property so as to be able to properly monitor future use of the Protected Property and assure compliance with the terms hereof, the Grantee may prepare an inventory of the relevant features and conditions of the property to be called the Baseline Data. The Baseline Data inventory shall include all existing man made improvements to the Protected Property. The parties shall not be foreclosed from utilizing all other relevant or material documents, surveys, reports and other evidence to assist in the resolution of any controversy.

D. Monitoring and Enforcement Rights

The Grantee shall have the right to assure compliance with all of the terms, covenants, conditions and restrictions set forth herein by means of periodic inspections of the Protected Property and enforcement by proceedings at law and in equity. For such inspection and enforcement purposes, the Grantee shall have the right of entry to all of the Protected Property at any time and in any manner provided that the time and manner of such entry does not unreasonably interfere with the reserved rights of the Grantor. The Grantee may prepare and keep on file a

Monitoring Report for each such inspection and may make any such reports available to the Grantor.

If the Grantee determines, in its sole discretion, that a violation of this Easement has occurred or is about to occur, the Grantee shall notify the Grantor via hand-delivered personal service and/or via certified mail, return receipt requested, and demand that the violation be stopped and that action be taken to restore the Protected Property to its condition at the time of this grant, subject to permitted changes made subsequently and changes resulting from natural causes over which the Grantor has no control. If the Grantor, its successors or assigns fail, with reasonable dispatch, to comply with the demand of the Grantee, said Grantee shall be entitled to pursue its remedies at law and in equity to enforce the terms of said Easement, to recover damages and/or to obtain injunctive relief, including an order requiring restoration as aforesaid. The requirement of written notice shall be waived in matters threatening imminent harm to the purposes of this grant, in which case the Grantee may immediately pursue its remedies at law or in equity, ex parte as necessary, after making reasonable efforts to contact the Grantor. Nothing contained herein should be construed to preclude the right of the Grantor and/or Grantee to recover damages from any third party for trespass or other violation of their respective rights in said Easement and the Protected Property.

The Grantor shall not be responsible for injury to or change in the Protected Property resulting from conditions beyond its control, such as, but not limited to, fire, flood, storm, and earth movement, or from any prudent action taken by the Grantor under emergency conditions to prevent, abate, or mitigate significant injury to the Protected Property, surrounding properties, or to protect public health or safety resulting from such causes. The failure or delay of the Grantee, for any reason whatsoever, to enforce any of the provisions of this Easement shall not constitute a waiver of its right to enforce the same or any other provision hereof.

E. Notices.

Unless stated otherwise herein, the Grantor shall provide written notice to the Grantee at least one hundred eighty (180) calendar days before commencing any construction, development, or other changes to the property. The Grantee shall respond in writing within one hundred eighty (180) calendar days of receipt of said notice granting approval or requesting additional information for the construction, development, or changes. No construction, development, or significant changes to the property

shall be made without the express written approval of the Grantee.

The Grantor, or its successors or assigns shall provide written notice to the Grantee of any conveyance of fee title to the property. Said notice will include the date of the conveyance and the name and mailing address of the new owner of the Protected Property. Any such conveyance shall include as an exhibit a recorded copy of this easement.

All notices required herein shall be in writing, hand delivered or sent by prepaid certified mail, return receipt requested, to:

Grantor:
City of Philadelphia, Fairmount Park Commission
4231 N. Concourse Drive
Philadelphia, PA 19131-3719

Grantee: Superintendent,
Independence National Historical Park
143 S. Third Street
Philadelphia, PA 19106

All notices are deemed received when hand-delivered or mailed pursuant to this section.

F. Construction.

If uncertainty should arise as to the interpretation of this Easement, judgment should be made in favor of conserving the Protected Property in its existing state. Nothing in this easement shall be construed to permit any activity otherwise prohibited by valid laws and regulations of any federal, state, or local government or governmental agency having competent jurisdiction over the Protected Property.

G. Miscellaneous

1. Definitions.

a. The term "Grantor" wherever used herein, and any pronouns used in place thereof, shall mean and include, unless repugnant to the context, the above named Grantor and its representatives, successors, and assigns. The term "Grantee" wherever used herein, and any pronouns used in place thereof, shall mean and include, unless repugnant to the context, the above named Grantee and its authorized representatives and assigns.

b. The words "Archeological Resources" as referenced herein shall mean any material remains of past human life or activities that are of archeological interest and are at least fifty (50) years of age. This term includes, but shall not be limited to, objects made or used by humans, such as pottery, bottles, weapons, weapon projectiles, tools, structures or portions of structures, or any portion or piece of the foregoing items, and the physical site, location or context in which they are found or human skeletal materials or graves. The words Archeological Resources as used herein shall not be construed to include historic items that were obtained from a source outside the Protected Property.

c. The words "ground disturbing activities" as referenced herein shall mean actions that dig into the soil more than twelve (12) inches.

2. The fact that any of the uses prohibited herein, or other uses not mentioned, may become greatly more economically valuable than permitted uses, or that neighboring properties may, in the future be put entirely to such non-permitted uses, has been considered in the reservation of this perpetual Easement. It is the intent that any such changes should not be deemed to be changed conditions permitting termination of this Easement.

3. The inability to carry on any or all of the above uses, or the unprofitability of doing so, shall not impair the validity of said Easement or be considered grounds to terminate it or alter its terms.

4. If any provisions of said Easement and/or the application thereof to any person or circumstance are found to be invalid, the remainder of the provisions of said Easement and the application of such provisions to persons or circumstances, other than those found to be invalid, shall not be affected thereby.

H. Grant in Perpetuity.

The Easement herein granted shall be a burden upon and shall run with the Protected Property in perpetuity and shall bind the Grantor, its successors and assigns forever. A copy of the easement terms and restrictions set forth herein and incorporation by reference to this deed shall be included in any subsequent deed or legal instrument by which the Grantor conveys any interest, including leasehold, in the Property; the benefits of this Easement shall not be appurtenant to any particular parcel of land but shall be in gross and assignable or transferable only to a governmental organization which is capable of enforcing the conservation purposes of this easement, or with the consent of the City of Philadelphia. Any such assignee or

transferee shall have like power or assignment of transfer

IN WITNESS WHEREOF, the said Grantor. has caused its duly authorized representative, ROBERT N.C. NIX III, to execute this Deed of Easement, and its seal to be hereto affixed and duly attested by KAREN LLOYD BORSKI its EXECUTIVE DIRECTOR, both being duly authorized to do so, on the day and year first above written, as the free and voluntary act of the CITY OF PHILADELPHIA.

CITY OF PHILADELPHIA

WITNESS

By:

WITNESS

By:

Commonwealth of Pennsylvania
County of Philadelphia, ss:

On the 18th day of May in the year 2005, before me, the undersigned, personally appeared KAREN LLOYD BORSKI and ROBERT N.C. NIX III, personally known to me or proved to me on the basis of satisfactory evidence to be the individuals whose names are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that the seal affixed to said instrument is the corporate seal of the said City of Philadelphia, and that said instrument was signed and sealed in behalf of the said City of Philadelphia by authority of its City Council, and the said ROBERT N.C. NIX III and KAREN LLOYD BORSKI acknowledged said instrument to be the free act and deed of the said City of Philadelphia.

Carol J. Roache
Notary Public

My commission expires:

COMMONWEALTH OF PENNSYLVANIA
NOTARIAL SEAL
CAROL J. ROACHE, Notary Public
City of Philadelphia, Phila. County
My Commission Expires September 11, 2008

APPROVED AS TO FORM

Assistant City Solicitor

GRANTEE ACCEPTANCE

The above and foregoing Easement Deed was authorized to be accepted by the United States of America, as aforesaid, and the said Grantee does hereby accept the Easement Deed, by and through Pamela McLay, Realty Officer, National Park Service, Northeast Region Land Resources, 200 Chestnut St., Philadelphia, PA 19106, hereunto duly authorized the day and year first above written.

THE UNITED STATES OF AMERICA

By: _____
Pamela McLay
Realty Officer

COMMONWEALTH OF PENNSYLVANIA

COUNTY OF PHILADELPHIA, TO-WIT:

I, the undersigned, a Notary Public in and for the aforesaid State and County, do hereby certify that Pamela McLay, Realty Officer of the National Park Service, Northeast Region Land Resources, whose name is signed to the foregoing Easement, has this day personally appeared and acknowledged the same before me in my State and County aforesaid.

Given under my hand this 20th day of May, 2005.

_____
Notary Public

My commission expires: April 26, 2009.

COMMONWEALTH OF PENNSYLVANIA
NOTARIAL SEAL
HARRIET T. WRIGHT, Notary Public
City of Philadelphia, Phila. County
My Commission Expires April 26, 2009

This deed was prepared by the National Park Service, Northeast Region, U. S. Custom House, 200 Chestnut Street, Phila., PA 19106

Independence National Historical Park

Tract No. 04-113

All that certain lot, tract, or parcel of land, situated in the Fifth Ward of the City of Philadelphia, Commonwealth of Pennsylvania, designated as "Washington Square", and being more particularly described as follows:

Beginning at the Southeast corner of Washington Square, at the curb located at the intersection of 6th and Locust Streets;

Thence, North, and following the curb along 6th Street, 537.05 feet, to the intersection of 6th and Walnut Streets;

Thence, West, along Walnut Street and crossing a small cartway, 539.54 feet, to the intersection of Walnut Street and Washington Square West Street;

Thence, South, along Washington Square West Street, crossing a small cartway and past the point at which Locust Street dead ends at the Square, 561.31 feet, to the intersection of Washington Square West Street with the continuation of Locust Street;

Thence, East, along Locust Street, 540.05 feet, to 6th Street and the Point of Beginning.

Containing 6.64 acres of land, more or less.

EXHIBIT A

APPENDIX C

WASHIGNTON SQUARE EASEMENT
MAY 18, 2005

INDEPENDENCE NATIONAL HISTORICAL PARK

WASHINGTON SQUARE EASEMENT

THIS EASEMENT made this 18th day of May, 2005, by and between **THE CITY OF PHILADELPHIA, THROUGH ITS FAIRMOUNT PARK COMMISSION**, with an address at 4231 N. Concourse Drive, Philadelphia, PA 19131-3719, (hereinafter referred to as "Grantor"), and the **UNITED STATES OF AMERICA**, 1849 "C" Street, N.W., (Code 2540), Washington, D.C. 20240, (hereinafter referred to as the "Grantee").

WHEREAS, Public Law 80-795 passed by Congress on June 28, 1948, authorized the establishment of Independence National Historical Park and authorized the Secretary to accept donations of real estate interests; and

WHEREAS, the Grantor is the sole owner in fee simple of land known as Washington Square located within Independence National Historical Park designated as Tract 04-113, and more particularly described in Exhibit A, (hereinafter referred to as the "Protected Property," attached hereto and made a part hereof by this reference); and

WHEREAS, Bill No. 1478, approved July 10, 1991, authorizes the Commissioner of Public Property and the Executive Director of the Fairmount Park Commission to enter into an agreement with the United States Department of the Interior to transfer an easement in Washington Square for the Interior's management and operation of the square; and

WHEREAS, it is the desire of the Grantor and the Grantee to protect and maintain in perpetuity the significant features of the landscape, to aid and encourage efforts in the restoration and maintenance of all features of significance.

NOW THEREFORE, in consideration of ONE (1.00) DOLLAR and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Grantor does hereby grant and convey with general warranty covenants to the Grantee and its assigns, forever and in perpetuity, an exclusive and assignable easement over the premises described in Exhibit A, consisting of the right, but not the obligation, to protect, control, maintain, restore missing landscape features of significance, and manage the land described herein in accordance with federal laws and regulations pertaining to units of the National Park System, in connection with the operation, construction, management, development, use and maintenance of the land herein described, including the right to allow and control public access to the

This Document Recorded
05/24/2005
12:56PM

Doc Id: 51184381
Receipt #: 410413

Reserving to the Grantor, its successors and assigns, only the following rights and uses:

1. The right to approve any capital improvements or structural changes to any existing buildings and monuments on the Protected Property but not including routine maintenance and improvements to grounds which may be undertaken by the Grantee without approval of the Grantor.

2. The right to maintain, repair and replace utility lines, to replace overhead utility lines with underground lines or to install new underground utility services including the right to excavate in connection with the rebuilding, replacement, restoration, construction, reconstruction, alteration or maintenance of (1) existing and permitted structures, (2) water sewerage, electric, telephone and other utility services provided to the Protected Property.

3. The right to enter the property for the purposes of public safety, in accordance with the restrictions set forth below.

4. All structural alterations to existing buildings and monuments shall be conducted in accordance with the notification and approval requirements otherwise set forth herein. No other filling, dumping, or excavation shall be made to the surface of the Protected Property (other than that required for routine maintenance, improvements to grounds or by the forces of nature) except as otherwise specifically permitted herein.

5. The reservations included herein are intended to allow for future use of the property by the Grantor, its successors and assigns which will not negatively impact the significant architectural, archeological, cultural landscape, or interpretive values of the site. In all cases, such values shall be carried out in accordance with the laws and regulations applicable to the National Park Service.

6. In the event of an emergency situation, such as non-functioning utilities, the Grantor shall immediately notify the Grantee what action is needed to remedy the problem. Maintenance, modification, alteration or reconstruction of any waste disposal system shall be done in accordance with state, county and local regulations. In emergency situations only, the Grantee shall have ten (10) working days to review and approve the proposed action. If the Grantee does not respond within ten (10) working days of notification, the Grantor may, at its own expense and without reimbursement from the Grantee, proceed with the work as outlined in the notification. To facilitate timely approval of emergency repairs, the Grantor shall maintain detailed plot plans showing

Monitoring Report for each such inspection and may make any such reports available to the Grantor.

If the Grantee determines, in its sole discretion, that a violation of this Easement has occurred or is about to occur, the Grantee shall notify the Grantor via hand-delivered personal service and/or via certified mail, return receipt requested, and demand that the violation be stopped and that action be taken to restore the Protected Property to its condition at the time of this grant, subject to permitted changes made subsequently and changes resulting from natural causes over which the Grantor has no control. If the Grantor, its successors or assigns fail, with reasonable dispatch, to comply with the demand of the Grantee, said Grantee shall be entitled to pursue its remedies at law and in equity to enforce the terms of said Easement, to recover damages and/or to obtain injunctive relief, including an order requiring restoration as aforesaid. The requirement of written notice shall be waived in matters threatening imminent harm to the purposes of this grant, in which case the Grantee may immediately pursue its remedies at law or in equity, ex parte as necessary, after making reasonable efforts to contact the Grantor. Nothing contained herein should be construed to preclude the right of the Grantor and/or Grantee to recover damages from any third party for trespass or other violation of their respective rights in said Easement and the Protected Property.

The Grantor shall not be responsible for injury to or change in the Protected Property resulting from conditions beyond its control, such as, but not limited to, fire, flood, storm, and earth movement, or from any prudent action taken by the Grantor under emergency conditions to prevent, abate, or mitigate significant injury to the Protected Property, surrounding properties, or to protect public health or safety resulting from such causes. The failure or delay of the Grantee, for any reason whatsoever, to enforce any of the provisions of this Easement shall not constitute a waiver of its right to enforce the same or any other provision hereof.

E. Notices.

Unless stated otherwise herein, the Grantor shall provide written notice to the Grantee at least one hundred eighty (180) calendar days before commencing any construction, development, or other changes to the property. The Grantee shall respond in writing within one hundred eighty (180) calendar days of receipt of said notice granting approval or requesting additional information for the construction, development, or changes. No construction, development, or significant changes to the property

b. The words "Archeological Resources" as referenced herein shall mean any material remains of past human life or activities that are of archeological interest and are at least fifty (50) years of age. This term includes, but shall not be limited to, objects made or used by humans, such as pottery, bottles, weapons, weapon projectiles, tools, structures or portions of structures, or any portion or piece of the foregoing items, and the physical site, location or context in which they are found or human skeletal materials or graves. The words Archeological Resources as used herein shall not be construed to include historic items that were obtained from a source outside the Protected Property.

c. The words "ground disturbing activities" as referenced herein shall mean actions that dig into the soil more than twelve (12) inches.

2. The fact that any of the uses prohibited herein, or other uses not mentioned, may become greatly more economically valuable than permitted uses, or that neighboring properties may, in the future be put entirely to such non-permitted uses, has been considered in the reservation of this perpetual Easement. It is the intent that any such changes should not be deemed to be changed conditions permitting termination of this Easement.

3. The inability to carry on any or all of the above uses, or the unprofitability of doing so, shall not impair the validity of said Easement or be considered grounds to terminate it or alter its terms.

4. If any provisions of said Easement and/or the application thereof to any person or circumstance are found to be invalid, the remainder of the provisions of said Easement and the application of such provisions to persons or circumstances, other than those found to be invalid, shall not be affected thereby.

H. Grant in Perpetuity.

The Easement herein granted shall be a burden upon and shall run with the Protected Property in perpetuity and shall bind the Grantor, its successors and assigns forever. A copy of the easement terms and restrictions set forth herein and incorporation by reference to this deed shall be included in any subsequent deed or legal instrument by which the Grantor conveys any interest, including leasehold, in the Property; the benefits of this Easement shall not be appurtenant to any particular parcel of land but shall be in gross and assignable or transferable only to a governmental organization which is capable of enforcing the conservation purposes of this easement, or with the consent of the City of Philadelphia. Any such assignee or

GRANTEE ACCEPTANCE

The above and foregoing Easement Deed was authorized to be accepted by the United States of America, as aforesaid, and the said Grantee does hereby accept the Easement Deed, by and through Pamela McLay, Realty Officer, National Park Service, Northeast Region Land Resources, 200 Chestnut St., Philadelphia, PA 19106, hereunto duly authorized the day and year first above written.

THE UNITED STATES OF AMERICA

By: _____
Pamela McLay
Realty Officer

COMMONWEALTH OF PENNSYLVANIA

COUNTY OF PHILADELPHIA, TO-WIT:

I, the undersigned, a Notary Public in and for the aforesaid State and County, do hereby certify that Pamela McLay, Realty Officer of the National Park Service, Northeast Region Land Resources, whose name is signed to the foregoing Easement, has this day personally appeared and acknowledged the same before me in my State and County aforesaid.

Given under my hand this 20th day of May, 2005.

_____
Notary Public

My commission expires: April 26, 2009.

COMMONWEALTH OF PENNSYLVANIA
NOTARIAL SEAL
HARRIET T. WRIGHT, Notary Public
City of Philadelphia, Phila. County
My Commission Expires April 26, 2009

APPENDIX D

NATIONAL REGISTER OF HISTORIC PLACES NOMINATION FORM 1981

FHR-8-300 (11-78)

United States Department of the Interior
Heritage Conservation and Recreation Service

National Register of Historic Places Inventory—Nomination Form

For NPS use only
received AUG 1 1980
date entered SEP 4 1980

See instructions in *How to Complete National Register Forms*
Type all entries—complete applicable sections

1. Name

historic ~~The~~ Four Public Squares of Philadelphia Thematic Resources

and/or common

2. Location

street & number ____ not for publication

city, town Philadelphia ____ vicinity of congressional district 2 and 3

state Pennsylvania code 42 county Philadelphia code 101

3. Classification

Category	Ownership	Status	Present Use	
____ district	X public	X occupied	____ agriculture	____ museum
____ building(s)	____ private	____ unoccupied	____ commercial	X park
____ structure	____ both	____ work in progress	____ educational	____ private residence
X site	**Public Acquisition**	**Accessible**	____ entertainment	____ religious
____ object	____ in process	____ yes: restricted	____ government	____ scientific
	____ being considered	X yes: unrestricted	____ industrial	____ transportation
		____ no	____ military	____ other:

4. Owner of Property

name City of Philadelphia, Fairmount Park Commission

street & number Municipal Services Building

city, town Philadelphia ____ vicinity of state Pennsylvania

5. Location of Legal Description

courthouse, registry of deeds, etc. Philadelphia County Courthouse

street & number City Hall

city, town Philadelphia state Pennsylvania

6. Representation in Existing Surveys

title Pennsylvania Inventory of Historic Places has this property been determined elegible? ____ yes ____ no

date Oct.13, 1980 ____ federal X state ____ county ____ local

depository for survey records Pennsylvania Historical and Museum Commission

city, town Harrisburg state Pennsylvania

7. Description

Condition		Check one	Check one
___ excellent	___ deteriorated	___ unaltered	x original site
x good	___ ruins	x altered	___ moved date _____
___ fair	___ unexposed		

Describe the present and original (if known) physical appearance

The origin of Philadelphia's four public squares, and their primary unifying force, is the 1683 plan (see attached) which William Penn commissioned from his surveyor, Thomas Holme. It was Penn himself, in his effort to plan a utopia, who specified five squares, one in the center of his "green country town", the other four in the quadrants of the designated city. (Center Square subsequently became the site of City Hall, which is now a National Historic Landmark, and is therefore not included in this nomination.) Each of the four squares in the quadrants, called respectively, Southeast, Northeast, Northwest, and Southwest, was to cover eight acres and be an open green space based on London's open commons.

These four squares are basically in the same form today as shown on Holme's map, although those on the west appear to be further west than originally planned, and Franklin's area has been somewhat diminished, while that of Logan has been expanded. All of them have gone through a number of plantings, fencings, and improvements over the years, and have served a variety of purposes. Their stages of development reflect the development of the city as a whole, ranging over a period of three centuries. Each has been in and out of favor and embellished and kempt to a greater or lesser degree at various times, depending on the health of the surrounding neighborhood. Because of their geographical situation, Rittenhouse, Logan, and Washington Squares have had the most attention both in landscaping and use. They have been embellished with substantial fountains, sculptures, and plantings, while Franklin Square, because of its location, has remained sparsely furnished and static.

In spite of differences in detail and surroundings, all four Squares serve as relief from the heat, fumes, and asphalt of the city. All are green oases with trees, grass, flowers, and much used walkways and benches.

United States Department of the Interior
Heritage Conservation and Recreation Service

National Register of Historic Places Inventory—Nomination Form

For HCRS use only
received AUG 14 1981
date entered SEP 14 1981

Washington Square:

From 1816, when Washington (formerly Southeast) Square was first seeded and planted by the City, to the present, it has remained an open green space of trees, grass, and walkways. The original planting design was done by George Bridport, an English artist who also did the ceiling of the House of Representatives in Washington, D.C. John Haviland was commissioned to design lamps, and seats and gravelled walks were installed. In 1825 the Square was opened as a public promenade, and in 1831 a committee of the Horticulture Society of Pennsylvania gave a glowing report describing the Square as "forming a handsome recreative and interesting promenade amongst fifty varieties of trees." (quoted in Scharf & Westcott, p. 1845). Andrew Jackson Downing called it "that really admirable city arboretum of rare trees" (quoted in Dallett, p. 25 from a statement of 1853 quoted in Downing's "Rural Essays", New York, 1869, p. 305).

Various improvements and changes have been made to the Square since its original design: fences have been put up and taken down, flagstones replaced the gravel walkways in 1880, and in 1913 the foundation of the Washington Square Imrpvement Association spurred a replanting in a geometric design by Olmsted Brothers & Co.

Washington Square as it stands today is the result of improvements designed by Edwin Brumbaugh in the early 1950's. Slate walkways crisscross the Square, but it is the grass and trees which dominate. In the center is a circular water pool and a monument to the Unknown Soldiers and Sailors of the Revolution. The focus of the monument is a life-size statue of George Washington cast in bronze from a 1790 Houdon sculpture which is now in the Virginia State House in Richmond. The memorial also includes a sarcophagus with the skeleton of a Revolutionary soldier exhumed from the northwest corner of the Square, and the inscription "Freedom is a Light for which many men have died in darkness" is chiseled in a granite backdrop. The whole is flanked by shrubs and fourteen flagpoles for the battle flags of the thirteen colonies and the first American flag. Lamps based on a design by Benjamin Franklin, and benches are scattered along the walkways, and the whole is surrounded by a four foot brick wall with brick coping on top, based on the design of Colonial church walls. At the southeast side of the Square is a small brick utility building.

Franklin Square

At present, Franklin (originally Northeast) Square is the least attractive of Philadelphia's Squares, owing to its location, flanked by highways. Nevertheless, it retains its character as an open green space with trees, walkways, benches, and a circular water pool in the center. It also has jungle gyms for children, a small brick utility building toward the east side, and a subway stop at the southwest corner.

The Square was first levelled, planted, and enclosed in 1815, after having been an open common for many years. In the 1830's it was surrounded by an iron fence and had a central fountain with forty water jets. In the 1950's the planners of Independence Mall, to the south, envisioned it as a terminus for that extensive space. Unfortunately, since there is little to draw people in that direction, it has become somewhat of a back water. The current residential development of the surrounding Olde City area, however, may spark renewed interest in the Square.

United States Department of the Interior
Heritage Conservation and Recreation Service

National Register of Historic Places Inventory—Nomination Form

For HCRS use only
received AUG 1 1 1981
date entered SEP 1 4 1981

The Four Public Squares of Philadelphia, Philadelphia Co.

Logan Square:

Logan (formerly Northwest) Square was first improved and planted in 1823, and subsequently underwent variations in planting and fencing at different times. The most dramatic change occurred in 1918 when Jacques Gréber's Benjamin Franklin Parkway was opened. The Parkway is a great diagonal boulevard cut through the city's gridiron pattern and linking City Hall at Center Square with Fairmount, the site of the Philadelphia Museum of Art. Logan Square was retained, albeit in somewhat altered state, as a focal point midway in the grand vista.

Today the basic layout of the Square is as Gréber planned it, with a large circle in the middle for pedestrian and vehicular traffic and green spaces to the west, north, and east. The exterior spaces serve as lawns in front of some of the institutions which surround the Square (John T. Windrim's Franklin Institute, Trumbauer's Free Library, Keast's Municipal Court, and Notman and LeBrun's Cathedral of SS. Peter and Paul), and as buffers between them and the circle. All the areas have grass, trees, walkways, and benches. Flower beds surround the circle itself, and there is a small brick utility building on the south side of the circle.

The center of the circle is taken up by the Swann Fountain, or "Fountain of Three Rivers," (1924) by Alexander Stirling Calder in conjunction with Wilson Eyre. It consists of three allegorical bronze figures representing the Delaware, Schuylkill, and Wissahickon Rivers, which recline on swan-necked cornices above a series of stepped basins. The Delaware is represented by a male Indian with a fish, the Schuylkill by a woman with a swan, and the Wissahickon by a younger woman with a swan. Bronze frogs and turtles are scattered about in the basin. Curved water jets are expelled from the mouths of the fish, swans, and frogs, and additional jets rise straight up from points in the basin and from the center of the ensemble. The figures and the jets are all carefully placed to coincide with the various angles from which the fountain is seen from the circle and the Parkway. The bronze allegorical figures are 132" high on a granite base 62" above the pool. The pool itself is 124" with a plain low curb of Milford pink granite.

To the north of the central circle of Logan Square, and in front of the Free Library of Philadelphia, is a plot of ground on which stands another sculpture by Alexander Stirling Calder and Wilson Eyre, the Shakespeare Memorial of 1926. In bronze, on a black marble base, the work shows a despondent Hamlet seated and leaning on a dagger, with a laughing Touchstone at his feet. On the base is inscribed a quotation from "As You Like It": "All the world's a Stage, and all the men and women merely players." On the back is a list of ten actors and three Philadelphia scholars. The sculpture is 72" high on a 170" base. Its original site was thirty feet north of the present one, but the sculpture was moved in 1953 to accommodate the underground Vine Street extension of the Expressway.

United States Department of the Interior
Heritage Conservation and Recreation Service

National Register of Historic Places Inventory—Nomination Form

For HCRS use only
received AUG 11 1981
date entered SEP 14 1981

Rittenhouse Square

The first record of attention paid to Rittenhouse (Southwest) Square as a public space was in 1816 when City Councils acquired a loan from the surrounding neighbors to enclose and seed the area. It was not, however, until 1852 that increased residential development in this part of the city caused real interest in beautifying the Square. In the 1850's it had an iron paling fence with trees, grass, and walkways, and fountains were installed by two local benefactors at the gates at Walnut and Rittenhouse Sts. and 18th and Locust Sts. The fountains were subsequently removed by an order of Council because they produced too much mud.

In its current state, Rittenhouse Square is the work of Paul Philippe Cret, who designed a scheme of diagonal walkways among grass, trees, and flower beds, executed in 1913. The plaza is surrounded by a balustrade, broken where the walkways pass through. Pedestals and urns with a raised Greek motif stand at the entries to the plaza and the Square itself. The gateways at the 18th, 19th, and Rittenhouse St. entrances are a Cret design of 1940. The blue tiles in the pool are a later addition.

Attempts were made to establish plantings around the periphery of the Square, but they proved unsuccessful because of wear from traffic. A strip of belgian block paving now provides a barrier between the greenery and the exterior sidewalks and streets.

Rittenhouse Square is the site of a number of Philadelphia's most popular public sculptures. The best known is Albert Laessle's "Billy" (1914), set in its own plaza in front of a hemispherical stone bench in the southwest part of the Square. A 26" bronze statue of a billy goat on a 22" granite base, Billy is kept shiny by the constant attention of young riders. Paul Manship's "Duck Girl", a 61" bronze of a young girl in Greek costume carrying a duck, is in the pool in the central plaza, while Antoine-Louis Barye's 1832 allegory of the 1830 French revolution, "Lion Crushing a Serpent", a 54" high bronze, is at the other (west) end of the plaza. Cornelia Chapin's "The Giant Frog" in granite (38"high) is in the northeast section of the Square, as is Beatrice Fenton's Evelyn Taylor Price Memorial Sundial of 1947. The latter is a 59" bronze depiction of two children holding up a giant sunflower which serves as the dial.

In addition to its sculptures, the Square has a number of ornamental flower beds, well and colorfully planted in summer, trees, grass, benches, and lamp posts. It is surrounded now primarily by apartment houses dating from various parts of the twentieth century, with a few vestigial single family residences remaining from the post Civil War period when Rittenhouse Square was at the height of fashion. John Notman's 1859 Holy Trinity Church still stands at the west side.

8. Significance

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

Specific dates **Builder/Architect**

Statement of Significance (in one paragraph)

Philadelphia's four public squares are significant because they are among the few manifestations left relatively intact of William Penn's seventeenth century utopian dream.

Penn's intention, animated in part by the fearsome London fire of 1666, and conveyed in instructions to his commissioners, Oct. 10, 1681, was that his city "may be a green country town which will never be burnt and always be wholesome." (quoted in Scharf & Westcott, p. 88 -- see bibliography). As executed by the surveyor, Thomas Holme, the plan was based on conservation -- a grid pattern for maneuverability, with large lots and five open public squares -- and it was one of the few early American city plans made before the town was actually settled. While the large lot sizes are now gone, as well as many other of Penn's building guidelines, the Squares still remain without encroachments, even as pressures on urban land increase.

In addition to the distinction of their genesis, the Squares are associated with a number of important personalities. In 1825 City Councils resolved to give the Squares the names of four eminent early Americans connected to Philadelphia's history. Southeast became Washington Square after the patriot, general, and president; Northeast became Franklin Square after the statesman, diplomat, and man of learning. Northwest was named after James Logan, scholar, secretary to Penn, and public servant; and Southwest was given the name Rittenhouse for David Rittenhouse, astronomer, surveyor, and first director of the U.S. Mint.

Three of Philadelphia's Squares have also been associated with a number of artists, architects, and planners of international and national importance. The original plan for Washington Square in the early nineteenth century was done by George Bridport and John Haviland, and a later concept was executed in 1913 by Olmsted Brothers & Co. The current scheme of Logan Square is by Jacques Gréber, with sculptures by Alexander Stirling Calder and Wilson Eyre, and Rittenhouse Square is the plan of Gréber's colleague, Paul Cret, with sculptures by Barye, Laessle,

9. Major Bibliographical References

See Continuation Sheet

10. Geographical Data

ACREAGE NOT VERIFIED

Acreage of nominated property 34.01

UTM NOT VERIFIED

Quadrangle name Philadelphia, Pa.-N.J. Quadrangle scale 1:24,000

UMT References

See Continuation Sheet

	Zone	Easting	Northing
A			
B			
C			
D			
E			
F			
G			
H			

Verbal boundary description and justification

See Continuation Sheet

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

state	code	county	code
state	code	county	code

11. Form Prepared By

name/title Trina Voux

organization date

street & number 2103 Lombard Street telephone

city or town Philadelphia state Pennsylvania

12. State Historic Preservation Officer Certification

The evaluated significance of this property within the state is:

___ national X state ___ local

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the Heritage Conservation and Recreation Service.

State Historic Preservation Officer signature

Ed Weintraub, Deputy State Historic Preservation Officer

title Director, Bureau for Historic Preservation date 9/15/81

For HCRS use only

I hereby certify that this property is included in the National Register

for W. H. Bradley date 9.29.81

Keeper of the National Register

Attest: date

Chief of Registration

GPO 938 835

United States Department of the Interior
Heritage Conservation and Recreation Service

National Register of Historic Places Inventory—Nomination Form

For HCRS use only
received AUG 11 1981
date entered SEP 14 1981

Manship, Fenton, and Chapin.

Title for the public squares depends simply on Thomas Holme's plan, although Washington Square came to the City by patent for a public burying ground. The city government has throughout the years taken responsibility for these public amenities, either directly through the Councils in the early days, or, starting in 1915, through the Fairmount Park Commission. But in the cases of Washington and Rittenhouse Squares, the Commission has had the assistance of neighborhood improvement societies, both founded in 1913. These organizations, plus the venerable Philadelphia Fountain Society and Fairmount Park Art Association, have contributed substantially to the embellishment and maintenance of the three most popular Squares -- Logan, Rittenhouse, and Washington. All are fine examples of the contribution that civic pride, work, and financial support can make to public spaces.

The development of the Squares parallels the evolution and expansion of the city itself, from its beginnings on the Delaware River through its westward expansion. Franklin and Washington, in the old part of the city, were the first to be improved, in the second decade of the nineteenth century. Logan was next in 1823, as residential interest spread to that area, and finally the development of Rittenhouse in 1852 was in response to the growing popularity of the surrounding neighborhood prior to the Civil War.

Today the condition of the Squares still reflects their surroundings. Washington and Rittenhouse, the focal points of institutional, commercial, and residential areas, and Logan, the centerpiece of the Benjamin Franklin Parkway, are all well kept. Only Franklin Square, surrounded by highways and industry, is in comparative disarray. Nevertheless, it, like the others, still serves the purpose envisioned for it three hundred years ago: an oasis of green space in an urban setting, providing cool and quiet relief from the surrounding bustle.

The importance of Philadelphia's four public squares is best attested to by the extent to which they are used by all ages and classes, from the small child sitting on the back of Albert Laessle's billy goat in Rittenhouse Square to the Chinese grandmother watching the pigeons in Franklin. They have been a joy and a source of great pride to Philadelphians for generations. Their continuing success as elements of city planning which have been maintained for three hundred years is a tribute to Penn and his Quaker utopian dream.

United States Department of the Interior
Heritage Conservation and Recreation Service

National Register of Historic Places Inventory—Nomination Form

For HCRS use only
received AUG 11 1981
date entered SEP 14 1981

Washington Square:

Washington Square has, over the years, served a number of purposes. While it appears as an open public square on Holme's map, it is the only one of the five which was granted by patent -- specifically for use as a burial ground. From 1705 to 1795 large numbers of "strangers", Revolutionary War soldiers, and victims of the 1793 yellow fever epidemic were buried here. It also was the site of the private plot of the Washington and Story family. Although the City took an interest in improving the area as early as 1802, the Square was used for cattle markets, camp meetings, and pasturage until 1815. It survived two attempts to build upon it: the first in 1805 by the University of Pennsylvania, the second in 1870 when a popular vote rejected the Square as the site for a new City Hall.

The 1816 development of Washington Square was in response to the increasing population of the area, which remained residential until after the Civil War. For the last quarter of the nineteenth century legal activities predominated around the Square, to be replaced in the first half of the twentieth century by publishing houses. Now, while some dwellings remain, most of the surrounding buildings are institutional.

Since 1745 there had been buildings near the Square, and from the eighteenth century to the present the streets overlooking it have had distinguished structures by well-known architects: Smith and Latrobe, Haviland, Notman, and Sloan, Bencker and Stonorov, among others. Notman's Athenæum of Philadelphia on the east side, Bencker's N.W. Ayer building on the west side, and Stonorov's Hopkinson House apartments on the south are mong the most predominant still standing, while some mid-nineteenth century rowhouses remain on the south, west, and north sides.

The importance of Washington Square to its neighborhood over almost two centuries has remained even as its immediate surroundings changed from residential to commercial and institutional. It is best expressed by the Horticulture Society's 1831 report: ". . .salubrity is diffused throughout the neighborhood and to the city generally, and recreation afforded to the assiduous citizen, where he may view four hundred trees in the midst of a populous and busy city. . . The whole is beautifully kept, and well illuminated at night. . . all showing the correct and liberal spirit of our city." (Quoted in Scharf & Westcott, pp. 1845-46.)

Today, as in the past, Washington Square is well and regularly used by people of all sorts: lunching office workers, playing children, walkers in search of relief, and tourists.

United States Department of the Interior
Heritage Conservation and Recreation Service

National Register of Historic Places Inventory—Nomination Form

For HCRS use only
received AUG 11 1981
date entered SEP 14 1981

Franklin Square:

In its early years the development of Franklin Square was not dissimilar to that of its sisters in the other three quadrants of the city. It was at various times leased for pasturage and cattle markets. It was used as a drilling ground during the War of 1812 and was the site of a powder house during the Revolutionary War. In 1741 Gov. Thomas Penn leased a portion of it to the German Reformed Church for a burying ground, which the Germans tried to expand in 1782, prompting a long series of Court battles over the propriety of the Penn warrant. In 1835 the State Supreme Court declared the warrant illegal and the Church duly vacated the premises.

While the streets bounding Franklin Square had a residential flavor in the nineteenth century, the neighborhood became increasingly less fashionable. Warehouses, light industry, a hospital, and the Police Administration Building are now its nearest neighbors. The building of the Benjamin Franklin Bridge (1919-1926) and subsequently the Vine Street Extension of the Schuylkill Expressway and Independence Mall have somewhat isolated the Square. And its proximity to Philadelphia's "Skid Row" has made it a favorite of indigents. Nevertheless, it is also used by residents of the neighboring Chinese community, and is the only relief in an otherwise rather bleak area.

Logan Square:

The early history of Logan Square is similar to that of the other Squares. It was used as a burial ground and pasture and also, until 1823, as a public execution ground. In 1864 it was the site for the extremely successful Sanitary Fair held for the benefit of Union soldiers and sailors. The buildings from the Fair were subsequently used for a brief period to house some 3,000 convalescent soldiers, the overflow from the city's military hospitals.

The present design of the Square is significant because of its association with Jacques Gréber and Alexander Stirling Calder. Jacques Auguste Henri Gréber (1882-1962) was a French planner brought to Philadelphia to design the gardens of Edward T. Stotesbury's estate in the suburbs of Philadelphia. As President of the Fairmount Park Art Association (1909-1916), Stotesbury was instrumental in getting Gréber to design the Benjamin Franklin Parkway, a grand boulevard in the spirit of the City Beautiful Movement. Logan Square, rather than being obliterated in this plan, was redesigned, enlarged, and included as a major focal point.

The Swann Fountain was the result, in part, of an 1891 bequest to the Philadelphia Fountain Society from Maria Elizabeth Swann in memory of her husband, Wilson Cary Swann, M.D., founder and president of the Society which provided sculptured drinking fountains throughout the city for both horses and people. The money, a somewhat small sum, was invested over a period of years while consideration of its use went forward. In 1919 Logan Square was approved as the site of the Swann Fountain, and in 1921 the fund was given to the Fairmount Park Commission on the assurance that the Commission would add to it the additional monies necessary, and erect a fountain designed by Wilson Eyre (1858-1944) and Alexander Stirling Calder (1870-1945).

The Swann Fountain is among the largest and most distinguished of the many works scattered around the City of Philadelphia by the second in the line of Calder sculptors. His Shakespeare Memorial, also in Logan Square, was the result of a suggestion by another local artist, John Sartain. Both sculptures are among a number of successful examples of the collaboration between Calder and the prominent Philadelphia architect, Wilson Eyre.

United States Department of the Interior
Heritage Conservation and Recreation Service

National Register of Historic Places Inventory—Nomination Form

For HCRS use only
received AUG 11 1981
date entered SEP 14 1981

The Four Public Squares of Philadelphia, Philadelphia Co.

Rittenhouse Square:

Rittenhouse is the only one of the Squares which was never used as a cemetery, although it was used for pasturage. At present it retains, more than any of the others, a residential flavor, and is still filled on bright days with children, mothers, and nannies, as well as lunching office workers and elderly apartment residents taking the air and feeding the pigeons.

Since 1913 it has been watched over and groomed by the Rittenhouse Square Improvement Society, which works with the Fairmount Park Commission and the Fairmount Park Art Association to maintain and enhance the area. It is the Improvement Society, along with the Art Association, which is responsible for acquiring and placing the sculptures, and which worked with Cret on the design.

The design and embellishments of Rittenhouse Square are significant because of their association with a number of distinguished artists and designers. Paul Cret (1876-1945), French Beaux Arts architect, designed, among other things, the Pan American Union Building in Washington and the Rodin Museum in Philadelphia, worked with Jacques Gréber on the Benjamin Franklin Parkway, and was Dean of Architecture at the University of Pennsylvania. The central plaza of Rittenhouse Square is, in particular, a good example of Cret's Beaux Arts/Renaissance Revival planning style.

Antoine-Louis Barye (1796-1875) was a renowned French romantic sculptor, Knight of the Legion of Honor. The original "Lion Crushing a Serpent" was ordered cast in bronze by the French Minister of State after seeing the plaster cast in the 1833 Salon exhibition. It was first placed in the Tuileries, and is now in the Salle de Barye in the Louvre. The bronze in Rittenhouse Square was made sometime between 1889 and 1891, and was possibly exhibited in the Universal Exposition of 1889.

Paul Manship (1885-1966), 1909 winner of the Prix de Rome, is known for such works as "Prometheus" in Rockefeller Plaza in New York and a number of sculptures done for the 1939 New York World's Fair. His "Duck Girl", a good example of his early work in the Classical style, won the Widener Gold Medal when it was exhibited at the Pennsylvania Academy of the Fine Arts in 1914.

Albert Laessle (1877-1954) was a Philadelphia sculptor, winner of a number of local and international awards, and best known for his animal works. Beatrice Fenton (b. 1887), also a Philadelphian, has several other works in the city, many including figures of children.

United States Department of the Interior
Heritage Conservation and Recreation Service

National Register of Historic Places Inventory—Nomination Form

For HCRS use only
received AUG 11 1981
date entered SEP 14 1981

The Four Public Squares of Philadelphia, Philadelphia Co.

BIBLIOGRAPHICAL DATA

Ayer, N.W. & Son, Pub.: Washington Square. 1957.

Dallett, Francis James: An Architectural View of Washington Square, Philadelphia. Athenæum of Philadelphia: Philadelphia, 1968.

Marion, John Francis: Bicentennial City. Pyne Press: Princeton, 1974.

Rivinus, Marion Willis Martin: The Story of Rittenhouse Square, 1682-1951. (private printing).

Scharf, J. Thomas & Thompson Westcott: History of Philadelphia, 1609-1884. L.H. Everts & Co.: Philadelphia, 1884.

Tatum, George B.: Penn's Great Town, 250 Years of Philadelphia Architecture. University of Pennsylvania Press: Philadelphia, 1961.

Wainwright, Nicholas B., ed.: Sculpture of a City: Philadelphia's Treasures in Bronze and Stone. Walker Publishing Co.: New York, 1974.

Multiple Resource Area
Thematic Group

dnr-11

Name Four Public Squares of Philadelphia Thematic Resources
State PA

	Nomination	Type of Review	Decision
1.	Franklin Square Ref # 81000556	Substantive Review	W.H. Bracham 9.14.81
2.	Logan Square Ref # 81000555	Substantive Review	W.H. Bracham 9.14.81
3.	Rittenhouse Square Ref # 81000557	Substantive Review	W.H. Bracham 9.14.81
4.	Washington Square Ref # 81000556	Substantive Review	W.H. Bracham 9.14.81
5.		-	
6.		-	
7.		-	
8.		-	
9.		-	
10.		-	
11.		-	
12.		-	
13.		-	
14.		-	
15.		-	
16.		-	
17.		-	
18.		-	
19.		-	
20.		-	
21.		-	
22.		-	
23.		-	
24.		-	

APPENDIX E

SURVEY OF PLAQUES & WAYSIDES
JANUARY 2006

Survey of Washington Square Plaques & Waysides



Independence National Historical Park
John Nelson, Intern
January 2006

Contents

Preface..……..…Page 1

Map …….…....Page 2

Identification Plaques……...……..……..…Page 3

Memorial Plaques ……..……..…….…….Page 9

Waysides…….……..…..Page 28

Preface

The following is a survey of the current memorial plaques, waysides and identification plaques found throughout Washington Square as of January 2006. The memorial plaques in the square include everything from plaques that honor individuals and their work, those that commemorate important events, to identifying tree genus and species. Current waysides contain history about the Square and Philadelphia, while the identification plaques consist of various informational markers.

The accompanying map locates the forty-two plaques and waysides currently within Washington Square. This map is divided into quadrants and further divided into zones, with each plaque and wayside appropriately located on the map.

Other information found in this survey includes dimensions of the metal plaque or stone wayside, material from which the marker is made, installation or dedication date (if known), and the inscription that can be found on the plaque or wayside. In addition, two photographs of the plaque or wayside are included, one being a close shot of the marker at the time this survey was conducted, and another photograph showing the single marker within the wider surroundings of Washington Square.

Identification Plaques

Zone 5
Identification Plaque No. 1
Southeast Quadrant
Size: 18”x18”
Stone
Installed: October 2002
Inscription: “Welcome to Washington Square” with map.





Zone 10
Identification Plaque No. 2
Southwest Quadrant
Size: 18”x18”
Stone
Installed: October 2002
Inscription: “Welcome to Washington Square” with map.





Zone 13
Identification Plaque No. 3
Northwest Quadrant
Size: 18”x18”
Stone
Installed: October 2002
Inscription: “Welcome to Washington Square” with map.





Fountain/Memorial Paved Area
Identification Plaques Nos. 4-10
Northwest Quadrant
Size of Metal Plaque: 5”x1”
Metal plaque
Installed/Dedicated: Assumed to be part of 1957 installation.



Inscription: Rhode Island



Inscription: Maryland



Inscription: Virginia



Inscription: North Carolina



Inscription: New Hampshire



Inscription: New York



Inscription: South Carolina



Fountain/Memorial Paved Area
Identification Plaques Nos. 11-17
Southwest Quadrant
Size of Metal Plaque: 5”x1”
Metal plaque
Installed/Dedicated: Assumed to be part of 1957 installation.



Inscription: Connecticut



Inscription: Delaware



Inscription: Georgia



Inscription: Pennsylvania



Inscription: Massachusetts



Inscription: New Jersey



Inscription: First Flag of the United States



Memorial Plaques

Zone 1
Plaque No. 1
Northeast Quadrant
Size of metal plaque: 44”x34”
Metal plaque set on stone
Installed/Dedicated: Unknown
Inscription: “Washington Square is one of the original five squares laid out by William Pen and his surveyor Thomas Holme in the plan for the city of Philadelphia in 1682. First designated as Southeast Square, it was reamed Washington Square in 1825 in honor of America’s most illustrious Revolutionary War General and First President of the United States, General George Washington. During the American Revolution, Washington Square served as a burial ground for over 2,000 Continental soldiers and British prisoners. It has remained as open space public parkland since 1816 as have three of the other original squares – Franklin, Logan and Rittenhouse. Center Square, at Broad and Market Streets is now the site of Philadelphia’s landmark city hall. Park Rules: No dogs, bicycles, or alcoholic beverages are permitted in the square. Your cooperation in helping protect and maintain this historic area is requested and appreciated. The Fairmont Park Commission.”





Zone 2
Plaque No. 2
Northeast Quadrant
Size of metal plaque: 20”x17”
Metal plaque set on stone
Dedicated: 1975
Inscription: “Bicentennial Moon Tree. Sycamore planted May 6, 1975 from seed carried to the moon by astronaut Stuart A. Roosa on Apollo XIV February 1971. National Aeronautics and Space Administration. Forest Service USDA. Pennsylvania Horticultural Society. Honoring Earth’s Green world of trees.”



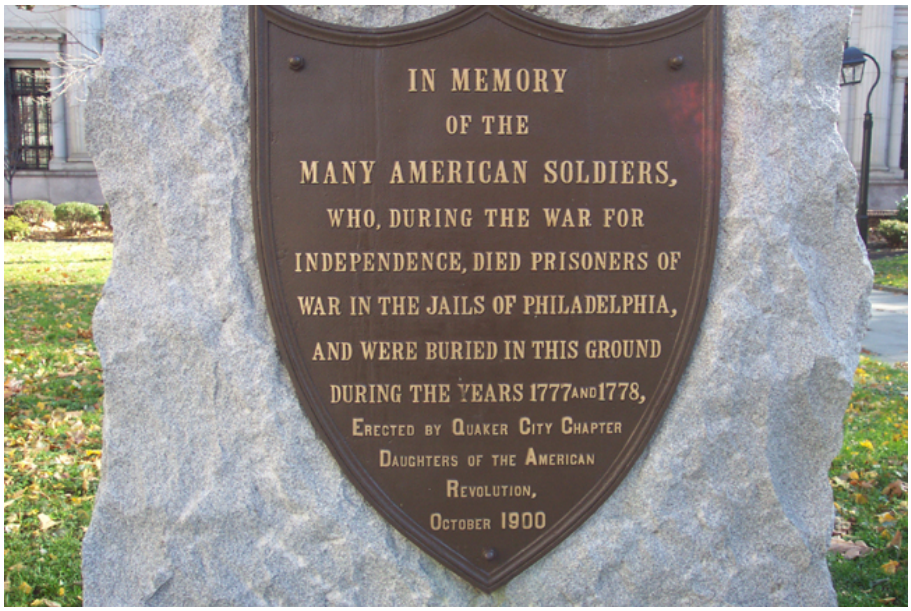


Zone 2
Plaque No. 3
Northeast Quadrant
Size of metal plaque: 8”x4”
Metal plaque on rock
Dedicated: April 1974
Inscription: “In honor of Mayor and Mrs. Richardson Dilworth, April 1974.”





Zone 2
Plaque No. 4
Northeast Quadrant
Size of metal plaque: 27”x36”
Metal shield shaped plaque on rock
Dedicated: October 1900
Inscription: “In memory of the many Americans soldiers, who during the war for independence, died prisoners of war in the jails of Philadelphia, and were buried in this ground during the years 1777 and 1778. Erected by the Quaker City Chapter Daughters of the American Revolution, October 1900.”



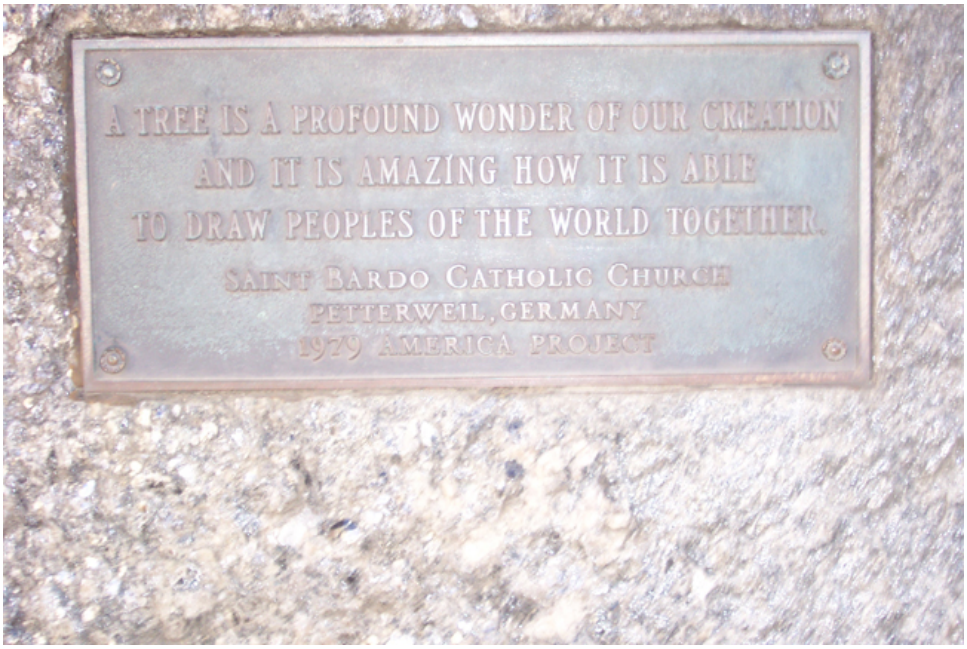


Zone 3
Plaque No. 5
Northeast Quadrant
Size of area where plaque was attached: 10”x6”
Installed/Dedicated: Unknown
Plaque either missing or stolen





Zone 3
Plaque No. 6
Northeast Quadrant
Size of metal plaque: 18”x8”
Metal plaque on stone
Installed/Dedicated: 1979
Inscription: “A tree is a profound wonder of our creation and it is amazing how it is able to draw peoples of the world together. Saint Bardo Catholic Church. Petterweil, Germany. 1979 America Project”





Zone 5
Plaque No. 7
Southeast Quadrant
Size of metal plaque: 17”x15”
Metal plaque on stone
Dedicated: 1982
Inscription: “Washington Square. One of Philadelphia’s original squares planned for by William Penn. 1682. Placed on the National Register of Historic Places. Heritage conservation and recreation service. United States Department of the Interior. On the occasion of the tricentennial of the city of Philadelphia, 1982. William E. Green, Mayor. Property of the commission of Fairmount Park.”





Zone 8
Plaque No. 8
Southwest Quadrant
Size of metal plaque: 8”x6”
Metal plaque on stone
Installed/Dedicated: 1945
Inscription: “White Oak. *Quercus Alba*. Planted December 17, 1945.”





Zone 12
Plaque No. 9
Northwest Quadrant
Size of metal plaque: 24”x12”
Metal plaque on stone
Dedicated: 1980
Inscription: This tree planted in honor of Carolyn Randall, Supreme President by the California State Association of Emblem Clubs and Nevada - Hawaii Clubs. Nadine Burns, President. September 23, 1980.





Zone 16
Plaque No. 10
Northeast Quadrant
Size of metal plaque: 23”x27”
Metal Plaque on Stone
Installed/Dedicated: Unknown
Inscription: “Tom Foglietta. City Councilman, Citizen of Philadelphia, Ambassador to Italy, Congressman, Champion of Historic Preservation.”





Zone 16
Plaque No. 11
Northeast Quadrant
Size of Metal Plaque: 8”x6”
Metal plaque on stone
Installed/Dedication: 1937
Inscription: “The Society of Little Gardens. 5 trees commemorating signing of Constitution. 1787-1937.”





Fountain/Memorial Paved Area
Plaque No. 12
Northeast Quadrant
Size of Metal Plaque: 18”x10”
Metal plaque on stone
Dedicated: November 11, 1995
Inscription: “In grateful appreciation to the officers and crew of the USS John F. Kennedy (CV-67) under the command of Capt. J.R. Hutchinson, USN. Capt. Gerald Hoewing, USN. Every morning and evening from November 1993 to September 1995 an honor guard from the Kennedy raised and lowered the American Flag in Washington Square in honor of the thousands of American War heroes buried here. Dedicated by the Pennsylvania Society of Sons of the Revolution. November 11, 1995.”





Fountain/Memorial Paved Area
Plaque No. 13
Border between Northeast and Southeast Quadrants
Size of Metal Plaque: 24”x20”
Brass plaque on stone
Installed/Dedicated: 1991
Inscription: “America’s First War Heroes. Revolutionary soldiers who fought and died for this nation’s independence are buried beneath this ground. This brass plate is from the hull of the Aircraft Carrier USS Kitty Hawk (CV-63) which was rebuilt at Philadelphia’s Naval Shipyard from September 1988 until July 1991. During this period the crew of the “Hawk” under the command of Capt. F.L. Tillotson Jr., USN and Capt. D.L. Rainly Jr., USN raised and lowered the flags in Washington Square in honor of America’s first war heroes.”





Fountain/Memorial Paved Area
Plaque No. 14
Southeast Quadrant
Size of Metal Plaque: 18”x10”
Metal plaque on stone
Dedicated: November 11,1995
Inscription: “Dedicated to the officers and crew of the USS Forrestal (CVT-59) under the command of Capt. R.L. “Bunky” Johnson, U.S.N. From her arrival in May 1992 until her decommissioning in September 1993 the crew of the Forrestal took part in every ceremony in Washington Square honoring the thousands of unknown heroes of the American Revolution buried here. Placed by the American Revolution Patriotic Fund in grateful appreciation. November 11, 1995.”



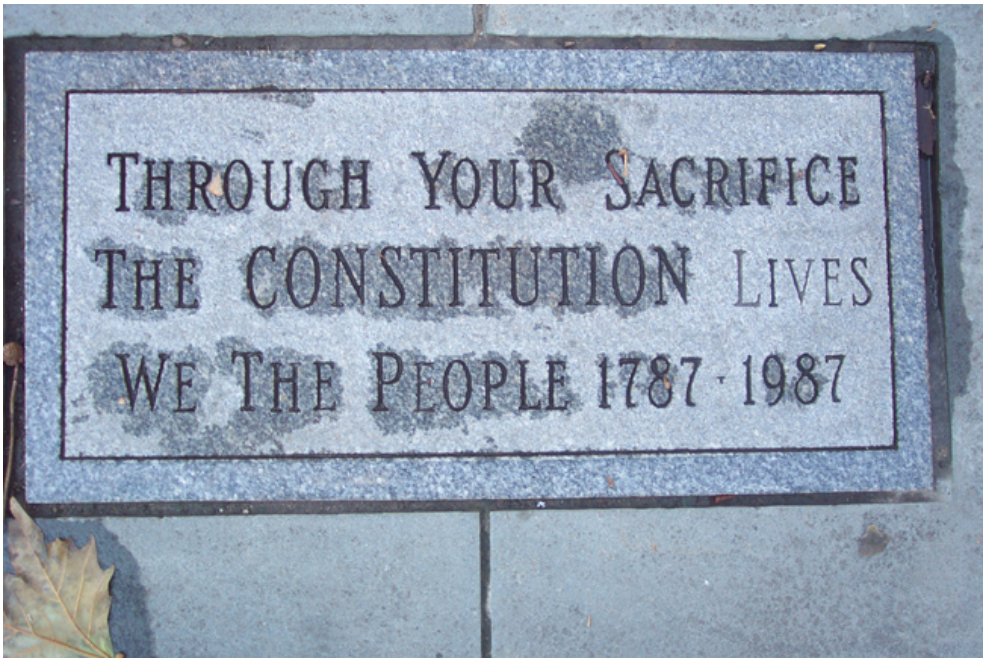


Fountain/Memorial Paved Area
Plaque No. 15
Border between Northwest and Southwest Quadrants
Size: 32”x40”
Stone
Installed/Dedicated: 2002
Inscription: “Washington Square restored through the cooperation of the American Revolution Patriots Fund, Barra Foundation, City of Philadelphia, Fairmount Park Commission, Independence National Historical Park, National Park Service, National Society Daughters of the American Revolution, National Society Sons of the Revolution and the Color Guard, Washington Square Association, William Penn Foundation. 1991 – 2002.”





Fountain/Memorial Paved Area
Plaque No. 16
Border between Northwest and Southwest Quadrants
Size: 12”x23”
Stone
Installed/Dedicated: 1987
Inscription: “Through your sacrifice the Constitution lives. We the people. 1787 – 1987.”





Fountain/Memorial Paved Area
Plaque No. 17
Border between Northwest and Southwest Quadrants
Size: 17”x22”
Stone
Dedicated: June 28, 1957
Inscription: “This monument together with its court of flags, the fountain, and the colonial wall surrounding the square were made possible by the generosity of many interested business firms and individual friends of Washington Square. Dedicated June 28, 1957.”





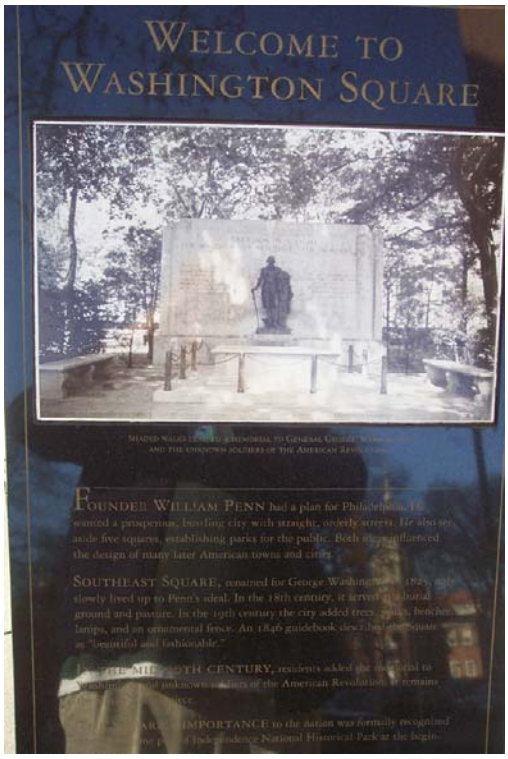
Fountain/Memorial Paved Area
Plaque No. 18
Border between Northwest and Southwest Quadrants
Size: 12”x12”
Stone
Dedicated: 1976
Inscription: “The eternal flame dedicated in 1996 by Continental Bank in memory of those who fought and gave their lives so that we might celebrate our 200th anniversary as a free people.”





Waysides

Zone 1
Wayside No. 1
Northeast Quadrant
Size: 20”x32”
Stone on metal pole
Installed: October 2002
Inscription: “Welcome to Washington Square. Shaded Walks lead to a memorial to General George Washington and the unknown soldiers of the American Revolution. Founder William Penn had a plan for Philadelphia. He wanted a prosperous, bustling city with straight, orderly streets. He also set aside five squares, establishing parks for the public. Both ideas influenced the design of many later American towns and cities. Southeast Square, renamed for George Washington in 1825, only slowly lived up to Penn’s ideal. In the 18th century it served as a burial ground and pasture. In the 19th century the city added trees, walks, benches, lamps, and ornamental fence. An 1846 guidebook described the square as “beautiful and fashionable.” In the mid-20th century, residents added the memorial to Washington and unknown soldiers of the American Revolution. It remains the square’s centerpiece. The square’s importance to the nation was formally recognized when it became part of the Independence National Historical Park at the beginning of the 21st century.”



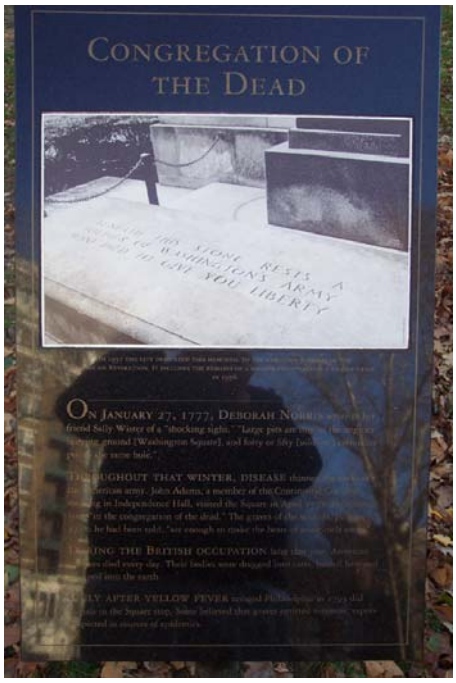


Zone 4
Wayside No. 2
Northeast Quadrant
Size: 20”x32”
Stone on post
Installed: 2002
Inscription: “Sorrow and Joy. Philadelphia supported a thriving African American community that celebrated its rich heritage in festivities in Washington Square. Until the 19th century, this was often a sorrowful place. Many people knew it as a potters field, a “publick burying place for all strangers,” for soldiers, sailors, convicts, and the “destitute whose remains are walked over.” A lonely Acadian refugee found eternal rest here, along with epidemic victims, Catholics and African Americans. Only free and enslaved African Americans brought a measure of mirth to this square which, according to oral tradition, they called “Congo Square.” One 19th century historian recorded that during fairs and holidays perhaps as many as a thousand Black Philadelphians came here to dance “after the manner of their several nations in Africa, speaking and singing in their native dialects over the sleeping dust below.” He also wrote of those from Guinea (a term once used to encompass several African areas) “going to the graves of their friends early in the morning, and there leaving them victuals and rum.”





Zone 4
Wayside No. 3
Northeast Quadrant
Size 20”x32”
Stone on post
Installed: 2002
Inscription: “Congregation of the Dead. In 1957 the city dedicated this memorial to the unknown soldiers of the American Revolution. It includes the remains of a soldier discovered in a nearby grave in 1956. On January 27, 1777, Deborah Norris wrote to her friend Sally Wister of a “shocking sight.” “Large pits are dug in the Negroes burying ground [Washington Square], and forty or fifty [soldiers’] coffins are put in the same hole.” Throughout that winter, disease thinned the ranks of the American Army. John Adams, a member of the Continental Congress meeting in Independence Hall, visited the Square in April 1777. He spent an hour “in congregation of the dead.” The graves of the soldiers, perhaps two thousand he had been told, “are enough to make the heart of stone melt away.” During the British occupation later that year, American captives did every day, their bodies wee dragged into carts, hauled here and dumped into the earth. Only after yellow fever ravaged in Philadelphia in 1793 did burials in the Square stop. Some believed that graves emitted miasma, vapors suspected as sources of epidemics.”





Zone 4
Wayside No. 4
Northeast Quadrant
Size 20”x32”
Stone on post
Installed: 2002
Inscription: “Linked in Memory. Washington Square has many moods. It can be a delightful as well as solemn place. Paths and trees reflect Penn’s vision. The memorial to Washington and the unknowns who died during the American Revolution offer an appropriate setting for national ceremonies and commemorations. A statue of the most famous American, George Washington stands near the square’s center. It keeps a vigil at the tomb of the Unknown Soldier who died during the war for Independence. Revolution linked them in life. The shrine joins them in our memory. In 1825 the city renamed its five public squares. This one became Washington Square. Organizers raising money for a suitable monument hoped for success as the 1832 centennial of the president’s birth approached. They actually laid a cornerstone in 1833, but failed to raise enough cash for a statue. Success waited for over a century. A new drive begun in 1953 finally funded the joint memorial that you see today.”



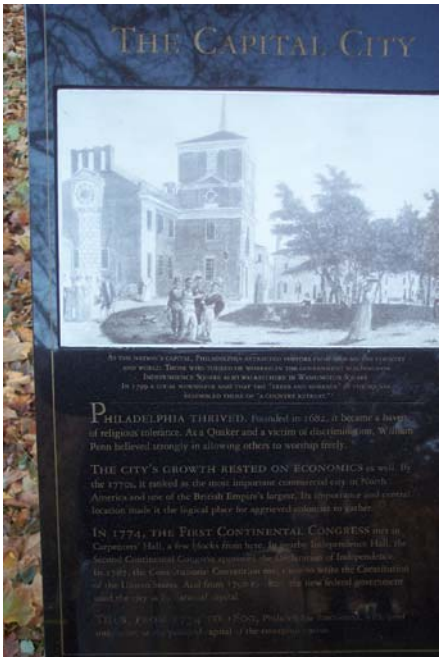


Zone 16
Wayside No. 5
Northeast Quadrant
Size: 20”x32”
Stone on post
Installed: 2002
Inscription: “A Fashionable Promenade. The appearance of Washington Square changed many times. By the 19th century, visitors could relax or play in “an admirable city arboretum.” In the 17th century, when the square first appeared in the city plan, streams drained into a deep gully in front of you. Then, beginning in 1833, geometric plans invited visitors into a leveled square planted with hundreds of trees. By 1846, Washington Square, with its seats, lamps, and ornamental fence, had dramatically changed from the “offensive nuisance” of the 18th century into “a beautiful and fashionable promenade” where adults strolled and children played marbles. In 1853, American Landscape Architect Andrew Jackson Downing’s Rural Essays praised Washington Square reporting that it had “more well grown specimens of different species of forest trees than any similar space of ground in America.”





Zone 16
Wayside No. 6
Northeast Quadrant
Size: 20”x32”
Stone on Post
Installed: 2002
Inscription: “The Capital City. As the nation’s first capital, Philadelphia attracted visitors from around the country and world. Those who toured or worked in the government buildings on Independence Square also walked here in Washington Square. In 1799 a local newspaper said that the “trees and herbage” in the Square resembled those of “a country retreat.” Philadelphia thrived. Founded in 1682, it became a haven of religious tolerance. As a Quaker and a victim of discrimination, William Penn believed strongly in allowing others to worship freely. The city’s growth rested on economics as well. By the 1770’s, it ranked as the most important commercial city in North America and one of the British Empire’s largest. Its importance and central location made it the logical place for aggrieved colonists to gather. In 1774, The First Continental Congress met in Carpenters Hall, a few blocks from here. In nearby Independence Square, the Second Continental Congress approved the Declaration of Independence. In 1787, the Constitutional Convention met there to write the Constitution of the United States. And from 1790 to 1800, the new federal government used the city as its national capital. Thus, from 1774 to 1800, Philadelphia functioned with brief intervals, as the political capital of the emerging nation.”





Zone 16
Wayside No. 7
Northeast Quadrant
Size: 20”x32”
Stone on post
Installed: 2002
Inscription: “Penn’s plan. The original names of the five public squares reflected their locations in the city’s center and its Northeast, Southeast, Northwest, and Southwest corners. Early Quaker Leaders avoided naming them after people. William Penn learned many lessons in life. Living in 17th century England taught him that open space offered breathing places for the great cities and also slowed the spread of fires. He applied what he had learned to Philadelphia. He insisted on a site that was “navigable, high, dry, and healthy.” He wanted “uniform” streets with “houses built in a lane.” He envisioned “gardens, orchards, or fields” around the houses, Penn wanted a “green country town, which will never be burnt, and always be wholesome.” Penn’s city plan, drawn up by surveyor Thomas Holme, included five public squares, the center one for “houses of publick affairs” and the others as green oases carefully placed throughout the developing city.





APPENDIX F

2007-08 TREE CONDITION ASSESSMENT

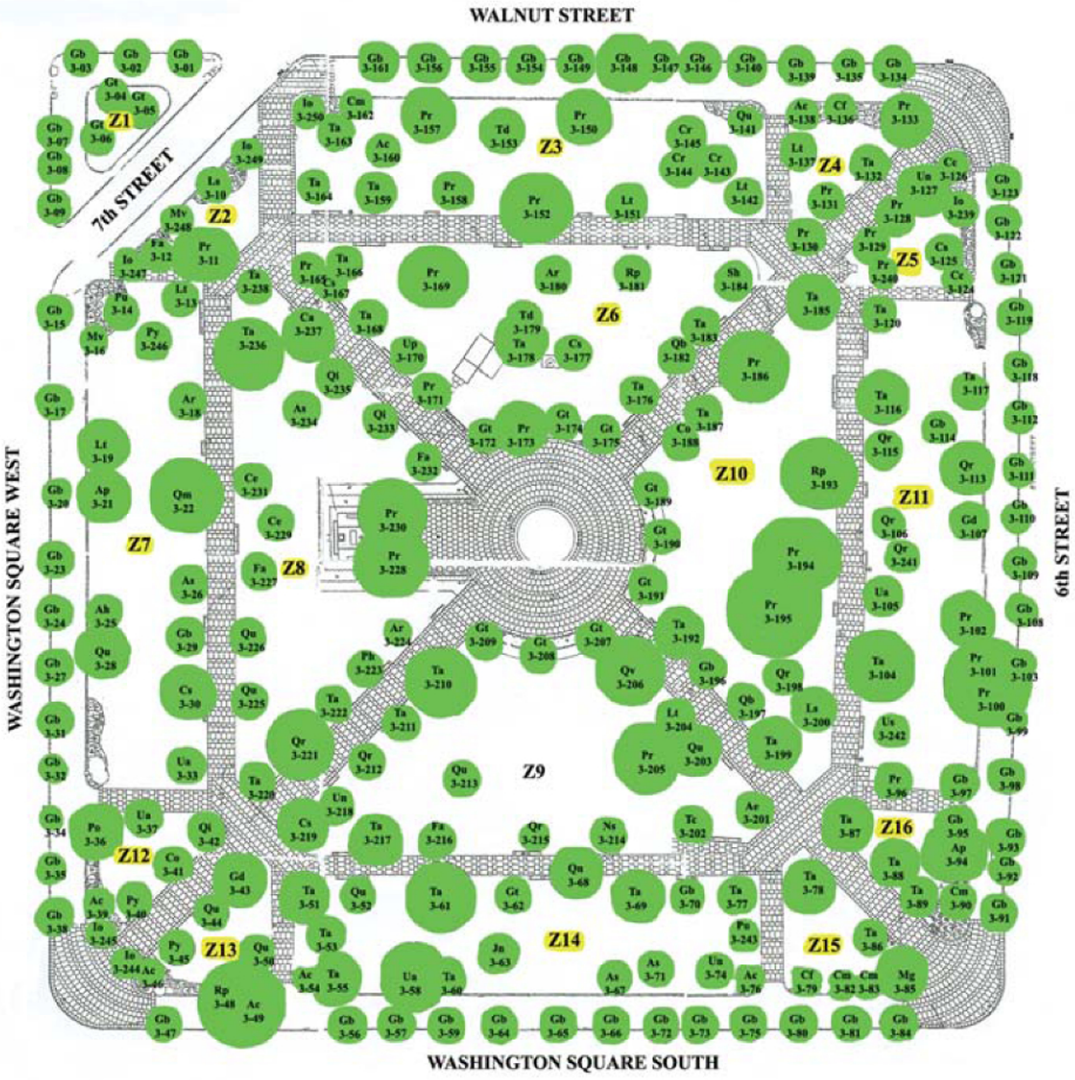
(Olmsted Center for Landscape Preservation)

2010 TREE INVENTORY

&

2010 SOIL CONDITIONS REPORT

(Morris Arboretum)



Condition Assessment of Trees

INDEPENDENCE NATIONAL HISTORICAL PARK

Washington Square

December 20, 2007

National Park Service
Olmsted Center for Landscape Preservation
http://www.nps.gov/oclp/

LEGEND

Ac Amelanchier canadensis
Ah Aesculus hippocastanum
Ap Acer platanoides
Ar Acer rubrum
As Acer saccharum
Ca Cladrastis kentukea
Cc Cercis canadensis
Cf Cornus florida
Cm Cornus mas
Co Celtis occidentalis
Cr Crataegus spp
Cs Catalpa speciosa
Fa Fraxinus americana
Gb Ginkgo biloba
Gd Gymnocladus diocus
Gt Gleditsia triacanthos
Jn Juglans nigra
Ls Liquidambar styraciflua
Lt Liriodendron tulipifera
Mg Magnolia grandiflora
Mv Magnolia virginiana
Ph Phellodendron amurense
Pr Platanus orientalis
Pu Prunus spp
Py Prunus x yedoensis
Qu Quercus acutissima
Qb Quercus bicolor
Qi Quercus imbricaria
Qm Quercus macrocarpa
Qn Quercus prinus
Qr Quercus rubra
Qv Quercus velutina
Rp Robinea pseudoacacia
Sh Sophora japonica
Ta Tilia americana
Tc Tsuga canadensis
Td Taxodendrum distichum
Ua Ulmus americana
Up Ulmus parriflora

CONDITION ASSESSMENT

PARK: Independence National Historical Park

LOCATION: Washington Square

Inspected By: Dan McCarthy, OCLP
Jamie McGuane, FRLA
Fred Dell Angelo, VAFO
Derek Black, INDE

Tree ID#	DBH	Species	Condition Rating	Defect / Problem	Action Recommended	Action Date	Complete Initials
3-01	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-02	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-03	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-04	n/a	Honeylocust (*Gleditsia triacanthos*)	n/a	Not inspected during visit.	n/a		
3-05	n/a	Honeylocust (*Gleditsia triacanthos*)	n/a	Not inspected during visit.	n/a		
3-06	n/a	Honeylocust (*Gleditsia triacanthos*)	n/a	Not inspected during visit.	n/a		
3-07	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-08	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-09	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-10	25”	Sweetgum (*Liquidambar styraciflua*)	Good	▪ Broken branch over sidewalk ▪ Crossing/rubbing branches	Prune to remove crossing/rubbing branches and broken branch over sidewalk.		

CONDITION ASSESSMENT

Tree ID#	DBH	Species	Condition Rating	Defect / Problem	Action Recommended	Action Date	Complete Initials
3-11	37”	Oriental Planetree (*Platanus orientalis*)	Good	▪ Mechanical damage to buttress roots ▪ Minor deadwood up to 4” ▪ Epicormic growth	Prune to remove deadwood		
3-12	19”	White Ash (*Fraxinus americana*)	Fair	▪ Girdling roots ▪ Mechanical damage to buttress roots ▪ Seam along stem up 20’ ▪ Minor deadwood up to 3”	▪ Monitor seam for change in condition ▪ Prune to remove deadwood.		
3-13	4.3”	Tulip Poplar (*Lirodendron tulipifera*)	Good	Canker on stem @ 5’	Monitor for change in condition		
3-14	17.4”	Cherry (*Prunus spp*)	Fair	▪ Girdling roots ▪ Excessive lean towards wall ▪ Crossing/rubbing branches ▪ Minor deadwood up to 4”	▪ Prune to remove deadwood and crossing/rubbing branches. ▪ Monitor tree for change in lean.		
3-15	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-16	Multi-stem	Sweetbay Magnolia (*Magnolia virginiana*)	Good	Broken branch	Prune to remove broken branch.		
3-17	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-18	4.3”	Red Maple (*Acer rubrum*)	Good	Canker on lower branches	Monitor for change in condition		

CONDITION ASSESSMENT

Tree ID#	DBH	Species	Condition Rating	Defect / Problem	Action Recommended	Action Date	Complete Initials
3-19	30.6”	Tuliptree (*Lirodendron tulipifera*)	Good	Crossing/rubbing branches	Prune to remove crossing/rubbing branches		
3-20	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-21	19”	Norway Maple (*Acer platanoides*)	Fair	▪ Nesting hole on stem @ 12’ ▪ Minor deadwood up to 3”	▪ Prune to remove deadwood ▪ Monitor nesting site for decay		
3-22	34”	Bur Oak (*Quercus macrocarpa*)	Good	▪ Moderate deadwood up to 3” ▪ Blue tarp in canopy	▪ Prune to remove deadwood ▪ Remove blue tarp		
3-23	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-24	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-25	18.6”	Horsechestnut (*Aesculus hippocastanum*)	Good	▪ Girdling roots ▪ Mechanical damage to surface roots	Monitor for change in condition		
3-26	4.8”	Sugar Maple (*Acer saccharum*)	Fair	▪ Minor cankers on branches ▪ Mechanical damage @ base of truck	Monitor for change in condition		
3-27	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-28	26.1”	Sawtooth Oak (*Quercus acutissima*)	Good	Moderate deadwood up to 4”	Prune to remove deadwood		
3-29	n/a	Gingko (*Gingko biloba*)	n/a	Missing tree	Plan for replacement		

CONDITION ASSESSMENT

Tree ID#	DBH	Species	Condition Rating	Defect / Problem	Action Recommended	Action Date	Complete Initials
3-30	28.5”	Catalpa (*Catalpa speciosa*)	Fair	▪ Mechanical damage to buttress & surface roots ▪ Nesting hole @ base of trunk ▪ lean over sidewalk ▪ Nesting hole on trunk @ 30’ ▪ Moderate deadwood up to 5” ▪ Multiple cracked branches ▪ Column of decay in stem	▪ Monitor tree for change in condition ▪ Plan for eventual replacement		
3-31	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-32	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-33	9”	American Elm (*Ulmus americana*)	Good	▪ Mechanical damage @ base of trunk ▪ Mechanical damage to surface roots ▪ Crossing/rubbing branches	▪ Prune to remove crossing/rubbing branches ▪ Monitor for change in condition		
3-34	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-35	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-36	28.2”	Oriental Planetree (*Platanus orientalis*)	Good	▪ Minor deadwood up to 6” ▪ Crossing/rubbing branch	Prune to remove deadwood and crossing rubbing branch		
3-37	8”	American Elm (*Ulmus americana*)	Good	▪ Mechanical damage to surface roots ▪ Crossing/rubbing branch	▪ Prune to remove crossing/rubbing branch ▪ Monitor for change		

CONDITION ASSESSMENT

Tree ID#	DBH	Species	Condition Rating	Defect / Problem	Action Recommended	Action Date	Complete Initials
3-38	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-39	Multi-stem	Shadblow Serviceberry (*Amelanchier canadensis*)	Good	Poor pruning cuts	Correct poor pruning cuts		
3-40	6.5”	Yoshino Cherry (*Prunus x yedoensis*)	Good	▪ Girdling roots ▪ Mechanical damage to surface roots ▪ Crossing/rubbing branches	▪ Remove girdling roots 1” or less ▪ Prune to remove crossing/rubbing branches		
3-41	8.3”	Hackberry (*Celtis occidentalis*)	Good	▪ Girdling roots ▪ Mechanical damage to surface roots ▪ Poor pruning cuts ▪ Dense canopy	▪ Remove girdling roots 1” or less ▪ Prune to thin canopy and correct poor pruning cuts		
3-42	6”	Shingle Oak (*Quercus imbricaria*)	Excellent	No visible defects or issues present	None		
3-43	n/a	Kentucky Coffeetree (*Gymnocladus diocus*)	n/a	Missing tree	Plan for replacement		
3-44	5”	Sawtooth Oak (*Quercus acutissima*)	Excellent	No visible defects or issues present	None		
3-45	6.6”	Yoshino Cherry (*Prunus x yedoensis*)	Good	Crossing/rubbing branches	Prune to remove crossing/rubbing branches		
3-46	Multi-stem	Shadblow Serviceberry (*Amelanchier canadensis*)	Good	Poor pruning cuts	Prune to correct poor pruning cuts		
3-47	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		

CONDITION ASSESSMENT

Tree ID#	DBH	Species	Condition Rating	Defect / Problem	Action Recommended	Action Date	Complete Initials
3-48	n/a	Black Locust (*Robinia pseudoacacia*)	n/a	Missing tree	Plan for replacement		
3-49	Multi-stem	Shadblow Serviceberry (*Amelanchier canadensis*)	Good	Poor pruning cuts	Prune to correct poor pruning cuts		
3-50	3”	Sawtooth Oak (*Quercus acutissima*)	Good	Mechanical damage @ base of trunk	Monitor for change in condition		
3-51	22.3”	Linden/Basswood (*Tilia americana*)	Poor	▪ Mechanical damage to buttress & surface roots, and base of trunk ▪ Broken top ▪ Multiple broken branches	▪ Prune to remove broken branches ▪ Possible removal		
3-52	5.5”	Sawtooth Oak (*Quercus acutissima*)	Excellent	No visible defects or issues present	None		
3-53	15.7”	Linden/Basswood (*Tilia americana*)	Fair	▪ Girdling roots ▪ Canker on trunk @ 2’ ▪ Minor deadwood up to 1”	▪ Remove girdling roots less than 1” diameter. ▪ Prune to remove deadwood		
3-54	Multi-stem	Shadblow Serviceberry (*Amelanchier canadensis*)	Excellent	No visible defects or issues present	None		
3-55	22.5”	Linden/Basswood (*Tilia americana*)	Good	Water sprouts	Prune to remove 2/3 watersprouts		
3-56	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-57	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		

CONDITION ASSESSMENT

Tree ID#	DBH	Species	Condition Rating	Defect / Problem	Action Recommended	Action Date	Complete Initials
3-58	n/a	American Elm (*Ulmus americana*)	n/a	Missing tree	n/a		
3-59	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-60	5”	Linden/Basswood (*Tilia americana*)	Good	Co-dominant stem	None		
3-61	34.3”	Linden/Basswood (*Tilia americana*)	Good	▪ Mechanical damage to buttress & surface roots ▪ 10” limb with tear	▪ Remove limb with tear ▪ Monitor tree for change in condition		
3-62	4.2”	Honey Locust (*Gleditsia triacanthos*)	Good	Planted too high – roots exposed	Add top soil to cover exposed roots.		
3-63	n/a	Black Walnut (*Juglans nigra*)	n/a	Missing tree	Plan for replacement		
3-64	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-65	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-66	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-67	5.1”	Sugar Maple (*Acer saccharum*)	Good	Crack on lowest branch	Remove branch with crack		
3-68	27.9”	Chestnut Oak (*Quercus prinus*)	Good	Minor deadwood up to 1”	Prune to remove deadwood		
3-69	23.2”	Linden/Basswood (*Tilia americana*)	Good	▪ Mechanical damage to surface roots ▪ Minor deadwood up to 2”	Prune to remove deadwood		
3-70	24.2”	Gingko (*Gingko biloba*)	Fair	▪ Mechanical damage to buttress root ▪ Nesting hole on truck ▪ Moderate deadwood	▪ Prune to remove deadwood ▪ Monitor for change in condition		

CONDITION ASSESSMENT

Tree ID#	DBH	Species	Condition Rating	Defect / Problem	Action Recommended	Action Date	Complete Initials
3-71	4.5”	Sugar Maple (*Acer saccharum*)	Fair	▪ Mechanical damage to surface roots ▪ Moderate canker on trunk @ 10’ ▪ Minor cankers on scaffolds	Monitor for change in condition		
3-72	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-73	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-74	24.6”	Unknown	Good	▪ Mechanical damage to surface roots ▪ Canker on 8” branch	Monitor for change in condition		
3-75	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-76	Multi-stem	Shadblow Serviceberry (*Amelanchier canadensis*)	Excellent	No visible defects or issues present	None		
3-77	5.7”	Linden/Basswood (*Tilia americana*)	Fair	▪ Mechanical damage to base of trunk ▪ Crossing/rubbing branches	▪ Prune to remove crossing/rubbing branches ▪ Monitor for change		
3-78	26.4”	Linden/Basswood (*Tilia americana*)	Good	▪ Mechanical damage to buttress & surface roots ▪ Minor decay @ site of old prune sites ▪ Minor deadwood up to 2”	▪ Prune to remove deadwood ▪ Monitor for change in condition		
3-79	3”	Flowering Dogwood (*Cornus florida*)	Good	Canker on limb	Monitor for change in condition		

CONDITION ASSESSMENT

Tree ID#	DBH	Species	Condition Rating	Defect / Problem	Action Recommended	Action Date	Complete Initials
3-80	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-81	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-82	3.5”	Cornelian Cherry Dogwood (*Cornus mas*)	Good	▪ Canker on limbs ▪ Watersprouts at base of tree	Monitor for change in condition		
3-83	3”	Cornelian Cherry Dogwood (*Cornus mas*)	Good	Canker on limbs	Monitor for change in condition		
3-84	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-85	27.4”	Southern Magnolia (*Magnolia grandiflora*)	Excellent	No visible defects or issues present	None		
3-86	6”	Linden/Basswood (*Tilia americana*)	Good	No visible defects or issues present	None		
3-87	19.6”	Linden/Basswood (*Tilia americana*)	Good	Mechanical damage on surface roots	Monitor for change in condition		
3-88	23”	Linden/Basswood (*Tilia americana*)	Good	▪ Mechanical damage to buttress roots ▪ 2” hanger over sidewalk ▪ Minor deadwood up to 4”	▪ Prune to remove deadwood ▪ Remove hanger		
3-89	3.6”	Linden/Basswood (*Tilia americana*)	Excellent	No visible defects or issues present	None		
3-90	9.6” / 11.8”	Cornelian Cherry Dogwood (*Cornus mas*)	Poor	▪ Multiple cavities w/ decay along main stems & branches ▪ Watersprouts	Plan for eventual removal and replacement		
3-91	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		

CONDITION ASSESSMENT

Tree ID#	DBH	Species	Condition Rating	Defect / Problem	Action Recommended	Action Date	Complete Initials
3-92	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-93	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-94	23.9”	Norway Maple (*Acer platanoides*)	Good	▪ Moderate cavity on trunk @ 12’ ▪ Poor pruning cuts ▪ Limb in upper canopy w/ crack	▪ Remove limb w/ crack ▪ Correct poor pruning cuts		
3-95	18.5”	Gingko (*Gingko biloba*)	Fair	▪ Minor deadwood up to 2” ▪ Stubs and broken branches	Prune to remove deadwood, stubs, and broken branches		
3-96	26.5”	Oriental Planetree (*Platanus orientalis*)	Poor	▪ Major cavity w/ decay at site of 2 branch failures ▪ Moderate cavities at branch unions	▪ Top tree ▪ Prune branches w/ cavities ▪ Possible removal		
3-97	18”	Gingko (*Gingko biloba*)	Fair	▪ Moderate deadwood up to 3” ▪ Minor cankers on limbs ▪ Broken leader @ top	▪ Remove broken leader ▪ Prune to remove deadwood		
3-98	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-99	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-100	53.3”	Oriental Planetree (*Platanus orientalis*)	Poor	▪ Mechanical damage to buttress roots ▪ Tree has been topped ▪ Column of decay ▪ Roots growing into wall	Possible removal		
3-101	n/a	Oriental Planetree (*Platanus orientalis*)	n/a	Missing tree	Plan for replacement		

CONDITION ASSESSMENT

Tree ID#	DBH	Species	Condition Rating	Defect / Problem	Action Recommended	Action Date	Complete Initials
3-102	19”	Oriental Planetree (*Platanus orientalis*)	Fair	▪ Seam along base of trunk up 6’ ▪ Prominent lean ▪ Mechanical damage to buttress roots	Monitor seam for change in condition		
3-103	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-104	32.6”	Linden/Basswood (*Tilia americana*)	Good	▪ Nesting holes at base of trunk ▪ Minor deadwood up to 4” ▪ Mechanical damage to buttress & surface roots	▪ Prune to remove deadwood ▪ Monitor for change in condition		
3-105	n/a	American Elm (*Ulmus americana*)	n/a	Missing tree	Plan for replacement		
3-106	11.6”	Northern Red Oak (*Quercus rubra*)	Good	No visible defects or issues present	None		
3-107	11.5”	Kentucky Coffeetree (*Gymnocladus diocus*)	Good	▪ Canker on stem @ 3’ ▪ Seam along stem ▪ Minor deadwood up to 4”	▪ Prune to remove deadwood ▪ Monitor seam for change		
3-108	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-109	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-110	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-111	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-112	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-113	32.9”	Northern Red Oak (*Quercus rubra*)	Good	Minor deadwood up to 3”	Prune to remove deadwood		

CONDITION ASSESSMENT

Tree ID#	DBH	Species	Condition Rating	Defect / Problem	Action Recommended	Action Date	Complete Initials
3-114	7.5”	Gingko (*Gingko biloba*)	Good	Watersprouts present	Remove 2/3 watersprouts		
3-115	25.7”	Northern Red Oak (*Quercus rubra*)	Good	▪ Epicormic growth along trunk ▪ Mechanical damage on buttress roots ▪ Minor deadwood up to 2”	▪ Prune to remove deadwood ▪ Monitor for change in condition		
3-116	21.9”	Linden/Basswood (*Tilia americana*)	Good	▪ Mechanical damage to buttress & surface roots ▪ Lean towards walkway	Monitor for change in condition		
3-117	15.1”	Linden/Basswood (*Tilia americana*)	Good	Minor deadwood	Prune to remove deadwood		
3-118	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-119	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-120	5.6”	Linden/Basswood (*Tilia americana*)	Good	Crossing/rubbing branches	Prune to remove crossing/rubbing branches		
3-121	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-122	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-123	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-124	Multi-stem	Eastern Redbud (*Cercis canadensis*)	Good	▪ Planted too deep ▪ Prominent lean ▪ Cankers on limbs ▪ Moderate deadwood	▪ Prune to remove deadwood ▪ Monitor for change in condition		
3-125	12.1”	Catalpa (*Catalpa speciosa*)	Good	▪ Moderate cavity of decay ▪ Moderate deadwood ▪ Lean towards walkway	▪ Prune to remove deadwood ▪ Monitor for change		

CONDITION ASSESSMENT

Tree ID#	DBH	Species	Condition Rating	Defect / Problem	Action Recommended	Action Date	Complete Initials
3-126	Multi-stem	Eastern Redbud (*Cercis canadensis*)	Fair	▪ Moderate deadwood ▪ Crossing/rubbing branch	Prune to remove deadwood and crossing/rubbing branch		
3-127	17.8”	Unknown	Fair	▪ Mechanical damage on buttress & surface roots ▪ Watersprouts ▪ Minor deadwood up to 2”	Prune to remove deadwood and 2/3 watersprouts		
3-128	12.2”	Oriental Planetree (*Platanus orientalis*)	Poor	▪ 40% live crown remains ▪ Poor branch structure	▪ Propagate ▪ Plan for replacement		
3-129	n/a	Oriental Planetree (*Platanus orientalis*)	n/a	Missing tree	Plan for replacement		
3-130	24”	Oriental Planetree (*Platanus orientalis*)	Good	▪ Mechanical damage on trunk ▪ Crossing/rubbing branches ▪ Watersprouts	▪ Prune to remove crossing/rubbing branches ▪ Monitor for change in condition		
3-131	5”	Oriental Planetree (*Platanus orientalis*)	Good	No visible defects or issues present.	None		
3-132	6”	Linden/Basswood (*Tilia americana*)	Good	No visible defects or issues present.	None		
3-133	30.2”	Oriental Planetree (*Platanus orientalis*)	Good	Minor deadwood up to 3”	Prune to remove deadwood		
3-134	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-135	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-136	4”	Flowering Dogwood (*Cornus florida*)	Fair	Crossing/rubbing branches	Prune to remove crossing/rubbing branches		
3-137	7.2”	Tuliptree (*Liriodendron tulipifera*)	Good	Mechanical damage to surface roots	Monitor for change in condition		

CONDITION ASSESSMENT

Tree ID#	DBH	Species	Condition Rating	Defect / Problem	Action Recommended	Action Date	Complete Initials
3-138	Multi-stem	Shadblow Serviceberry (*Amelanchier canadensis*)	Excellent	No visible defects or issues present	None		
3-139	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-140	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-141	11”	Sawtooth Oak (*Quercus acutissima*)	Good	▪ Minor deadwood ▪ Crossing/rubbing branches	Prune to remove deadwood and crossing/rubbing branches		
3-142	4.5”	Tuliptree (*Liriodendron tulipifera*)	Good	Mechanical damage at base of trunk	Monitor for change in condition		
3-143	12.5”	Hawthorn (*Crataegus spp*)	Fair	▪ Dense canopy ▪ Minor canker on stem at 6’ ▪ Multiple minor cankers on stems in upper canopy	▪ Prune to thin canopy ▪ Monitor cankers for change in condition		
3-144	13”	Hawthorn (*Crataegus spp*)	Good	▪ Canker on 6” branch ▪ Dense canopy	▪ Prune to thin canopy ▪ Monitor canker for change in condition		
3-145	10”	Hawthorn (*Crataegus spp*)	Good	▪ Dense canopy ▪ Minor cavity w/ decay on truck at 2’	▪ Prune to thin canopy ▪ Monitor cavity for change in condition		
3-146	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-147	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-148	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		

CONDITION ASSESSMENT

Tree ID#	DBH	Species	Condition Rating	Defect / Problem	Action Recommended	Action Date	Complete Initials
3-149	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-150	30”	Oriental Planetree (*Platanus orientalis*)	Good	Minor deadwood up to 4”	Prune to remove deadwood		
3-151	8”	Tuliptree (*Liriodendron tulipifera*)	Good	▪ Broken branch at top of tree ▪ Branch w/ canker on top ▪ minor deadwood	Prune to remove broken branch and hanger.		
3-152	52.5”	Oriental Planetree (*Platanus orientalis*)	Poor	▪ Mechanical damage to surface roots ▪ Epicormic growth ▪ Hollow limbs & stem w/ major decay	▪ Remove tree ▪ Plan for replacement		
3-153	n/a	Bald Cypress (*Taxodium ditichum*)	n/a	Missing tree	Plan for replacement		
3-154	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-155	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-156	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-157	32.5”	Oriental Planetree (*Platanus orientalis*)	Fair	▪ Mechanical damage to buttress roots ▪ Lean towards Walnut St. ▪ Top broken out w/ watersprouts at origin	▪ Reduce canopy over roadway by lightening branch ▪ Monitor tree for change in condition		
3-158	3”	Oriental Planetree (*Platanus orientalis*)	Good	No visible defects or issues present	None		
3-159	21”	Linden/Basswood (*Tilia americana*)	Good	▪ Mechanical damage to surface roots ▪ Minor deadwood up to 3”	Prune to remove deadwood		

CONDITION ASSESSMENT

Tree ID#	DBH	Species	Condition Rating	Defect / Problem	Action Recommended	Action Date	Complete Initials
3-160	n/a	Shadblow Serviceberry (*Amelanchier canadensis*)	n/a	Missing tree	Plan for replacement		
3-161	n/a	Gingko (*Gingko biloba*)	n/a	Not inspected during visit.	n/a		
3-162	3”	Cornelian Cherry Dogwood (*Cornus mas*)	Fair	▪ Branching to 1 side of tree ▪ Mechanical damage to base of trunk ▪ Minor cankers on branches	Monitor tree for change in condition		
3-163	5.5”	Linden/Basswood (*Tilia americana*)	Good	Crossing/rubbing branches	Prune to remove crossing/rubbing branches		
3-164	5.3”	Linden/Basswood (*Tilia americana*)	Good	Crossing/rubbing branches	Prune to remove crossing/rubbing branches		
3-165	3”	Oriental Planetree (*Platanus orientalis*)	Fair	Minor deadwood and branch stubs	Prune to remove deadwood and branch stubs		
3-166	21.2”	Linden/Basswood (*Tilia americana*)	Fair	▪ Cavity of decay near base of trunk ▪ Minor deadwood ▪ 3’ seam along base of trunk	▪ Prune to remove deadwood ▪ Monitor tree for change in condition		
3-167	18.5”	Catalpa (*Catalpa speciosa*)	Fair to Poor	▪ Hollow trunk w/ approximately 2” holding wood ▪ Moderate deadwood ▪ Minor cavity w/ decay at ¾ height of tree	▪ Remove tree ▪ Plan for replacement		
3-168	4.5”	Linden/Basswood (*Tilia americana*)	Good	Mechanical damage to trunk at 3’	Monitor for change in condition		

CONDITION ASSESSMENT

Tree ID#	DBH	Species	Condition Rating	Defect / Problem	Action Recommended	Action Date	Complete Initials
3-169	58.5”	Oriental Planetree (*Platanus orientalis*)	Fair to Good	▪ Previous branch failure w/ decay @ failure site ▪ Minor deadwood up to 6”	▪ Prune to remove deadwood ▪ Monitor cavity for change in condition		
3-170	5.5”	Chinese Elm (*Ulmus parriflora*)	Excellent	No visible defects or issues present	None		
3-171	30.2”	Oriental Planetree (*Platanus orientalis*)	Good	▪ Minor deadwood up to 4” ▪ Crossing/rubbing branch	Prune to remove deadwood and crossing/rubbing branch		
3-172	3.5”	Honeylocust (*Gleditsia triacanthos*)	Good	Planted too deep	Monitor for change in condition		
3-173	46.7”	Oriental Planetree (*Platanus orientalis*)	Fair to Good	▪ 2 minor cavities on leader @ ¼ height ▪ Minor deadwood up to 4”	▪ Prune to remove deadwood ▪ Monitor cavities for change in condition		
3-174	3.5”	Honeylocust (*Gleditsia triacanthos*)	Good	Planted too deep	Monitor for change in condition		
3-175	5.2”	Honeylocust (*Gleditsia triacanthos*)	Good	Planted too deep	Monitor for change in condition		
3-176	6.7”	Linden/Basswood (*Tilia americana*)	Good	Stubs remain from broken branches	Prune to remove stubs		
3-177	n/a	Catalpa (*Catalpa speciosa*)	n/a	Missing tree	Plan for replacement		
3-178	n/a	Linden/Basswood (*Tilia americana*)	n/a	Missing tree	Plan for replacement		
3-179	3.25”	Bald Cypress (*Taxodium ditichum*)	Excellent	No visible defects or issues present	None		
3-180	4.7”	Red Maple (*Acer rubrum*)	Good	No visible defects or issues present	None		

CONDITION ASSESSMENT

Tree ID#	DBH	Species	Condition Rating	Defect / Problem	Action Recommended	Action Date	Complete Initials
3-181	5.7”	Black Locust (*Robinia pseudoacacia*)	Excellent	No visible defects or issues present	None		
3-182	6.2”	Swamp White Oak (*Quercus bicolor*)	Excellent	No visible defects or issues present	None		
3-183	6”	Linden/Basswood (*Tilia americana*)	Excellent	No visible defects or issues present	None		
3-184	24.7”	Chinese Scholar-tree (*Sophora japonica*)	Good	▪ Tight v-crotch ▪ Minor deadwood up to 2”	▪ Prune to remove deadwood ▪ Possible cable installation		
3-185	6”	Linden/Basswood (*Tilia americana*)	Excellent	No visible defects or issues present	None		
3-186	42.2”	Oriental Planetree (*Platanus orientalis*)	Good	▪ Minor deadwood up to 3” ▪ Several hangers	▪ Prune to remove deadwood ▪ Remove hangers		
3-187	7”	Linden/Basswood (*Tilia americana*)	Excellent	Girdling roots	Remove girdling roots 1” diameter or less		
3-188	16.5”	Hackberry (*Celtis occidentalis*)	Good	▪ Minor deadwood ▪ Soil compaction	▪ Prune to remove deadwood ▪ Aerate soil		
3-189	3.7”	Honeylocust (*Gleditsia triacanthos*)	Good	▪ Planted too deep ▪ Soil compaction	▪ Monitor tree for change in condition ▪ Aerate soil		
3-190	4.5”	Honeylocust (*Gleditsia triacanthos*)	Excellent	No visible defects or issues present	None		
3-191	3.7”	Honeylocust (*Gleditsia triacanthos*)	Excellent	Planted too deep	Monitor tree for change in condition		

CONDITION ASSESSMENT

Tree ID#	DBH	Species	Condition Rating	Defect / Problem	Action Recommended	Action Date	Complete Initials
3-192	27.2”	Linden/Basswood (*Tilia americana*)	Good	Minor deadwood up to 2”	Prune to remove deadwood		
3-193	n/a	Black Locust (*Robinia pseudoacacia*)	n/a	Missing tree	Plan for replacement		
3-194	39”	Oriental Planetree (*Platanus orientalis*)	Good	No visible defects or issues present	None		
3-195	32.7”	Oriental Planetree (*Platanus orientalis*)	Good	▪ 5” broken branch ▪ V-crotch	▪ Remove broken branch ▪ Possible cable installation		
3-196	30.2”	Gingko (*Gingko biloba*)	Good	No visible defects or issues present	None		
3-197	3.5”	Swamp White Oak (*Quercus bicolor*)	Good	No visible defects or issues present	None		
3-198	21.5”	Northern Red Oak (*Quercus rubra*)	Good	Minor deadwood up to 2”	Prune to remove deadwood		
3-199	18.5”	Linden/Basswood (*Tilia americana*)	Good	No visible defects or issues present	None		
3-200	24.7”	Sweetgum (*Liquidambar styraciflua*)	Good	▪ Minor deadwood up to 2” ▪ 3” hanger	▪ Prune to remove deadwood ▪ Remove hanger		
3-201	3.2”	Yellow Buckeye (*Aesculus octandra*)	Excellent	No visible defects or issues present	None		
3-202	n/a	Eastern Hemlock (*Tsuga canadensis*)	n/a	No visible defects or issues present	None		
3-203	36.5”	Sawtooth Oak (*Quercus acutissima*)	Good	Minor deadwood	Prune to remove deadwood		
3-204	n/a	Tuliptree (*Liriodendron tulipifera*)	n/a	Missing tree	Plan for replacement		

CONDITION ASSESSMENT

Tree ID#	DBH	Species	Condition Rating	Defect / Problem	Action Recommended	Action Date	Complete Initials
3-205	41.5”	Oriental Planetree (*Platanus orientalis*)	Good	Minor deadwood	Prune to remove deadwood		
3-206	40.2”	Black Oak (*Quercus velutina*)	Good	Minor deadwood	Prune to remove deadwood		
3-207	3.5”	Honeylocust (*Gleditsia triacanthos*)	Good	Mechanical damage @ base of trunk	Monitor for change in condition		
3-208	4.2”	Honeylocust (*Gleditsia triacanthos*)	Good	No visible defects or issues present	None		
3-209	3.7”	Honeylocust (*Gleditsia triacanthos*)	Excellent	No visible defects or issues present	None		
3-210	33.2”	Linden/Basswood (*Tilia americana*)	Good	▪ Minor deadwood up to 2” ▪ 3” hanger	▪ Prune to remove deadwood ▪ Remove hanger		
3-211	19”	Linden/Basswood (*Tilia americana*)	Good	Minor deadwood	Prune to remove deadwood		
3-212	n/a	Northern Red Oak (*Quercus rubra*)	n/a	Missing tree	Plan for replacement		
3-213	21.5”	Sawtooth Oak (*Quercus acutissima*)	Good	No visible defects or issues present	None		
3-214	17.7”	Black Tupelo (*Nyssa sylvatica*)	Good	Minor deadwood	Prune to remove deadwood		
3-215	14.7”	Northern Red Oak (*Quercus rubra*)	Good	Minor deadwood	Prune to remove deadwood		
3-216	5.2”	White Ash (*Fraxinus americana*)	Excellent	No visible defects or issues present	None		
3-217	21.2”	Linden/Basswood (*Tilia americana*)	Good	No visible defects or issues present	None		

CONDITION ASSESSMENT

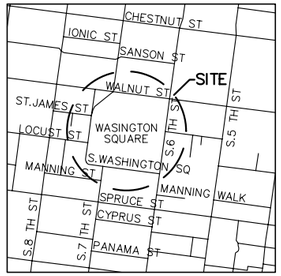
Tree ID#	DBH	Species	Condition Rating	Defect / Problem	Action Recommended	Action Date	Complete Initials
3-218	n/a	Unknown	n/a	Missing tree	Plan for replacement		
3-219	20”	Catalpa (*Catalpa speciosa*)	Fair to Good	▪ Minor deadwood ▪ Moderate mechanical damage	Prune to remove deadwood		
3-220	4.7”	Linden/Basswood (*Tilia americana*)	Excellent	No visible defects or issues present	None		
3-221	41.2”	Northern Red Oak (*Quercus rubra*)	Good	Minor deadwood up to 2”	Prune to remove deadwood		
3-222	5.7”	Linden/Basswood (*Tilia americana*)	Excellent	No visible defects or issues present	None		
3-223	6.5”	Corktree (*Phellodendron amurense*)	Excellent	No visible defects or issues present	None		
3-224	7.2”	Red Maple (*Acer rubrum*)	Good	▪ Lower scaffold branch w/ large split ▪ Minor canker @ ¾ height	▪ Remove lower scaffold w/ split ▪ Monitor for change in condition		
3-225	4.7”	Sawtooth Oak (*Quercus acutissima*)	Excellent	No visible defects or issues present	None		
3-226	25.2”	Sawtooth Oak (*Quercus acutissima*)	Good	Minor deadwood up to 2”	Prune to remove deadwood		
3-227	13.5”	White Ash (*Fraxinus americana*)	Good	No visible defects or issues present	None		
3-228	35.2”	Oriental Planetree (*Platanus orientalis*)	Good	Minor deadwood up to 2”	Prune to remove deadwood		
3-229	4.2”	Yellowood (*Cladrastis Kentukea*)	Good	Girdling roots	Remove girdling roots 1” diameter or less		
3-230	38.2”	Oriental Planetree (*Platanus orientalis*)	Good	Minor deadwood up to 2”	Prune to remove deadwood		

CONDITION ASSESSMENT

Tree ID#	DBH	Species	Condition Rating	Defect / Problem	Action Recommended	Action Date	Complete Initials
3-231	n/a	Yellowood (*Cladrastis Kentukea*)	n/a	Missing tree	Plan for replacement		
3-232	5.2”	White Ash (*Fraxinus americana*)	Good	Co-dominant stem	Remove 1 leader of co-dominant stem to allow for central leader to establish		
3-233	7.7”	Shingle Oak (*Quercus imbricaria*)	Excellent	No visible defects or issues present	None		
3-234	Multi-stem	Sugar Maple (*Acer saccharum*)	Fair to Poor	3 leaders w/ multiple scars	Monitor for change in condition		
3-235	4.7”	Shingle Oak (*Quercus imbricaria*)	Excellent	No visible defects or issues present	None		
3-236	36.5”	Linden/Basswood (*Tilia americana*)	Good	▪ Moderate cavity w/ decay @ ½ height ▪ Moderate deadwood	▪ Prune to remove deadwood ▪ Monitor for change		
3-237	28.2”	Catalpa (*Catalpa speciosa*)	Fair	▪ Multiple minor cavities throughout tree ▪ Minor deadwood up to 2”	▪ Prune to remove deadwood ▪ Monitor for change		
3-238	4”	Linden/Basswood (*Tilia americana*)	Excellent	No visible defects or issues present	None		
3-239	Multi-stem	American Holly (*Ilex opaca*)	Good	▪ Planted too deep ▪ Prominent lean	Monitor for change in condition		
3-240	3.8”	Oriental Planetree (*Platanus orientalis*)	Good	▪ Mechanical damage @ base of trunk ▪ Planted too deep	Monitor for change in condition		
3-241	9.1”	Northern Red Oak (*Quercus rubra*)	Excellent	No visible defects or issues present	None		
3-242	6.9”	Elm (*Ulmus spp*)	Good	Canker present of stem @ 5’			
3-243	12.7”	Cherry (*Prunus spp*)	Good	▪ Girdling root ▪ Poor pruning cuts	Correct poor pruning cuts		

CONDITION ASSESSMENT

Tree ID#	DBH	Species	Condition Rating	Defect / Problem	Action Recommended	Action Date	Complete Initials
3-244	10.5”	American Holly (*Ilex opaca*)	Good	▪ Canker @ base of trunk ▪ Watersprouts	▪ Prune to remove 2/3 watersprouts ▪ Monitor for change in condition		
3-245	10.7”	American Holly (*Ilex opaca*)	Good	▪ Canker @ base of trunk ▪ Watersprouts	▪ Prune to remove 2/3 watersprouts ▪ Monitor for change in condition		
3-246	7”	Yoshino Cherry (*Prunus x yedoensis*)	Good	▪ Crossing/rubbing branches ▪ Mechanical damage to surface roots	▪ Prune to remove crossing/rubbing branches ▪ Monitor for change		
3-247	8.5”	American Holly (*Ilex opaca*)	Good	Poor pruning cuts	Correct poor pruning cuts		
3-248	Multi-stem	Sweetbay Magnolia (*Magnolia virginiana*)	Excellent	No visible defects or issues present	None		
3-249	4” / 5” / 5.5”	American Holly (*Ilex opaca*)	Good	Crossing/rubbing branches	Prune to remove crossing/rubbing branches		
3-250	11”	American Holly (*Ilex opaca*)	Good	Crossing/rubbing branches	Prune to remove crossing/rubbing branches		



VICINITY MAP
NOT TO SCALE

1	ginkgo	117 Chinese holly
2	ginkgo	118 Chinese holly
3	ginkgo	119 flowering dogwood
4	ginkgo	120 American basswood
5	ginkgo	121 American basswood
6	ginkgo	122 littleleaf linden
7	ginkgo	123 London planetree
8	ginkgo	124 London planetree
9	ginkgo	125 London planetree
10	ginkgo	126 tuliptree
11	ginkgo	127 Washington hawthorn cv.
12	ginkgo	128 Washington hawthorn cv.
13	swamp white oak	129 Washington hawthorn cv.
14	ginkgo	130 swamp white oak
15	ginkgo	131 tuliptree
16	ginkgo	132 tuliptree
17	ginkgo	133 serviceberry
18	ginkgo	134 cornelliancherry dogwood
19	ginkgo	135 Chinese holly
20	ginkgo	136 London planetree
21	ginkgo	137 American basswood
22	ginkgo	138 London planetree
23	ginkgo	139 London planetree
24	ginkgo	140 eastern redbud
25	ginkgo	141 Amur corktree
26	ginkgo	142 London planetree
27	ginkgo	143 London planetree
28	ginkgo	144 northen catalpa
29	ginkgo	145 eastern redbud
30	ginkgo	146 eastern redbud 'Tennessee Pink'
31	common thornless honeylocust	147 American basswood
32	common thornless honeylocust	148 littleleaf linden
33	common thornless honeylocust	149 littleleaf linden
34	ginkgo	150 ginkgo
35	ginkgo	151 northern red oak
36	ginkgo	152 swamp white oak
37	ginkgo	153 northern red oak
38	ginkgo	154 Kentucky coffeetree
39	ginkgo	155 northern red oak
40	ginkgo	156 London planetree
41	ginkgo	157 American basswood
42	ginkgo	158 American elm cv.
43	ginkgo	159 London planetree
44	ginkgo	160 ginkgo
45	ginkgo	161 Chinese holly
46	ginkgo	162 ginkgo
47	ginkgo	163 Norway maple
48	ginkgo	164 Washington hawthorn cv.
49	ginkgo	165 American linden
50	ginkgo	166 littleleaf linden
51	ginkgo	167 American basswood
52	ginkgo	168 Ukame cherry
53	ginkgo	169 littleleaf linden
54	ginkgo	170 black gum
55	ginkgo	171 northern red oak
56	ginkgo	172 American ash
57	London planetree	173 littleleaf linden
58	ginkgo	174 northen catalpa
59	ginkgo	175 Amur corktree
60	ginkgo	176 littleleaf linden
61	ginkgo	177 American basswood
62	ginkgo	178 white oak
63	baldcypress	179 common thornless honeylocust
64	cornelliancherry dogwood	180 common thornless honeylocust
65	cornelliancherry dogwood	181 common thornless honeylocust
66	flowering dogwood	182 black oak
67	littleleaf linden	183 London planetree
68	American basswood	184 littleleaf linden
69	serviceberry	185 American sweetgum
70	Japanese pagodatree	186 northern red oak
71	Ukame cherry	187 ginkgo
72	American basswood	188 swamp white oak
73	ginkgo (female)	189 American basswood
74	littleleaf linden	190 London planetree
75	sugar maple	191 London planetree
76	sugar maple	192 common thornless honeylocust
77	Turkey oak	193 common thornless honeylocust
78	common thornless honeylocust	194 common thornless honeylocust
79	silver linden	195 American elm cv.
80	American basswood	196 common hackberry
81	eastern redbud	197 London planetree
82	American basswood	198 American basswood
83	littleleaf linden	199 Japanese pagodatree
84	littleleaf linden	200 American basswood
85	sawtooth oak	201 American basswood
86	sawtooth oak	202 swamp white oak
87	Chinese holly	203 American basswood
88	Yoshino cherry	204 common thornless honeylocust
89	sawtooth oak	205 common thornless honeylocust
90	Chinese holly	206 common thornless honeylocust
91	Yoshino cherry	207 London planetree
92	common hackberry	208 Franklinia
93	shingle oak	209 red maple
94	American elm cv.	210 baldcypress
95	London planetree	211 London planetree
96	American elm cv.	212 London planetree
97	saucer magnolia	213 American elm cultivar
98	eastern redbud	214 American basswood
99	northen catalpa	215 northen catalpa
100	swamp white oak	216 littleleaf linden
101	horse chestnut	217 American basswood
102	sugar maple	218 littleleaf linden
103	sycamore maple	219 shingle oak
104	tuliptree	220 American elm cultivar
105	Turkey oak	221 American ash
106	red maple	222 American yellowwood
107	American chestnut	223 American yellowwood
108	Japanese Tree Lilac	224 American ash cv.
109	sweetbay magnolia	225 Turkey oak
110	Kwanzan cherry	226 sawtooth oak
111	tuliptree	227 American basswood
112	Chinese holly	228 northern red oak
113	American ash	229 American basswood
114	sweetbay magnolia	230 Amur corktree
115	London planetree	231 sugar maple
116	American sweetgum	232 London planetree
		233 London planetree
		234 saucer magnolia
		235 saucer magnolia
		236 saucer magnolia
		237 common crapemyrtle 'Pink Velour'

All tree identification numbers were assigned by the Urban Forestry Team of Morris Arboretum of the University of Pennsylvania on Friday, August 6, 2010.

These numbers correspond with the tree identification spreadsheet submitted to The National Park Service with this CAD drawing, last updated on December 20, 2010.

On September 29, 2010, Morris Arboretum's Urban Forestry Team took soil samples from locations as indicated on this layer. One bulk density soil sample was taken per quad, and 12 soil tests were taken per quad as indicated, each quad's samples were mixed together to form the soil test sample for that quad. A report of soil test findings was submitted to NPS in December 2010.

Tree Inventory

Washington Square

Independence National Historical Park

Philadelphia, Pennsylvania

Prepared by:

Urban Forestry Team

Morris Arboretum

University of Pennsylvania

SOURCES:
1. SITE SURVEY PREPARED BY RK&K ENGINEERS, JUNE 4, 2010.
2. FIELD IDENTIFICATION COMPLETED BY THE UNIVERSITY OF PENNSYLVANIA, MORRIS ARBORETUM, URBAN FORESTRY TEAM, AUGUST 6, 2010, UPDATED DECEMBER 20, 2010.

DATE: JULY 2010, REV. DECEMBER 2010

15 0 30 60
SCALE IN FEET

SHEET	DRAWING NO.
1 of 1	391/105,613

Inv#	*Scientific Name*	*Common name*
1	Gingko biloba	ginkgo
2	Gingko biloba	ginkgo
3	Gingko biloba	ginkgo
4	Gingko biloba	ginkgo
5	Gingko biloba	ginkgo
6	Gingko biloba	ginkgo
7	Gingko biloba	ginkgo
8	Gingko biloba	ginkgo
9	Gingko biloba	ginkgo
10	Gingko biloba	ginkgo
11	Gingko biloba	ginkgo
12	Gingko biloba	ginkgo
13	Quercus bicolor	swamp white oak
14	Gingko biloba	ginkgo
15	Gingko biloba	ginkgo
16	Gingko biloba	ginkgo
17	Gingko biloba	ginkgo
18	Gingko biloba	ginkgo
19	Gingko biloba	ginkgo
20	Gingko biloba	ginkgo
21	Gingko biloba	ginkgo
22	Gingko biloba	ginkgo
23	Gingko biloba	ginkgo
24	Gingko biloba	ginkgo
25	Gingko biloba	ginkgo
26	Gingko biloba	ginkgo
27	Gingko biloba	ginkgo
28	Gingko biloba	ginkgo
29	Gingko biloba	ginkgo
30	Gingko biloba	ginkgo
31	Gleditsia triacanthos var. inermis	common thornless honeylocust
32	Gleditsia triacanthos var. inermis	common thornless honeylocust
33	Gleditsia triacanthos var. inermis	common thornless honeylocust
34	Gingko biloba	ginkgo
35	Gingko biloba	ginkgo
36	Gingko biloba	ginkgo
37	Gingko biloba	ginkgo
38	Gingko biloba	ginkgo
39	Gingko biloba	ginkgo
40	Gingko biloba	ginkgo
41	Gingko biloba	ginkgo
42	Gingko biloba	ginkgo
43	Gingko biloba	ginkgo
44	Gingko biloba	ginkgo
45	Gingko biloba	ginkgo
46	Gingko biloba	ginkgo
47	Gingko biloba	ginkgo
48	Gingko biloba	ginkgo
49	Gingko biloba	ginkgo

The Morris Arboretum's Urban Forestry Team
9414 Meadowbrook Avenue
Philadelphia, PA 19118
215.247.5777 x189

Inv#	*Scientific Name*	*Common name*
50	Gingko biloba	ginkgo
51	Gingko biloba	ginkgo
52	Gingko biloba	ginkgo
53	Gingko biloba	ginkgo
54	Gingko biloba	ginkgo
55	Gingko biloba	ginkgo
56	Gingko biloba	ginkgo
57	Platanus x acerifolia	London planetree
58	Gingko biloba	ginkgo
59	Gingko biloba	ginkgo
60	Gingko biloba	ginkgo
61	Gingko biloba	ginkgo
62	Gingko biloba	ginkgo
63	Taxodium distichum	baldcypress
64	Cornus mas	corneliancherry dogwood
65	Cornus mas	corneliancherry dogwood
66	Cornus florida	flowering dogwood
67	Tilia cordata	littleleaf linden
68	Tilia americana	American basswood
69	Amelanchier canadensis	serviceberry
70	Styphnolobium japonicum	Japanese pagodatree
71	Prunus x incamp 'Okame'	Okame cherry
72	Tilia americana	American basswood
73	Gingko biloba (female)	ginkgo (female)
74	Tilia cordata	littleleaf linden
75	Acer saccharum	sugar maple
76	Acer saccharum	sugar maple
77	Quercus cerris	Turkey oak
78	Gleditsia triacanthos var. inermis	common thornless honeylocust
79	Tilia tomentosa	silver linden
80	Tilia americana	American basswood
81	Cercis canadensis	eastern redbud
82	Tilia americana	American basswood
83	Tilia cordata	littleleaf linden
84	Tilia cordata	littleleaf linden
85	Quercus accutissima	sawtooth oak
86	Quercus accutissima	sawtooth oak
87	Ilex cornuta	Chinese holly
88	Prunus x yedoensis	Yoshino cherry
89	Quercus accutissima	sawtooth oak
90	Ilex cornuta	Chinese holly
91	Prunus x yedoensis	Yoshino cherry
92	Celtis occidentalis	common hackberry
93	Quercus imbricaria	shingle oak
94	Ulmus americana cv.	American elm cv.
95	Platanus x acerifolia	London planetree
96	Ulmus americana cv.	American elm cv.
97	Magnolia x soulangiana	saucer magnolia
98	Cercis canadensis	eastern redbud

The Morris Arboretum's Urban Forestry Team
9414 Meadowbrook Avenue
Philadelphia, PA 19118
215.247.5777 x189

Inv#	*Scientific Name*	*Common name*
99	Catalpa speciosa	northen catalpa
100	Quercus bicolor	swamp white oak
101	Aesculus hippcastanum	horse chestnut
102	Acer saccharum	sugar maple
103	Acer pseudoplatanus	sycamore maple
104	Liriodendron trulipifera	tuliptree
105	Quercus cerris	Turkey oak
106	Acer rubrum	red maple
107	Castanea dentata	American chestnut
108	Syringa reticulata	Japanese Tree Lilac
109	Magnolia virginiana	sweetbay magnolia
110	Prunus serrulata 'Kwanzan'	Kwanzan cherry
111	Liriodendron tulipifera	tuliptree
112	Ilex cornuta	Chinese holly
113	Fraxinus americana	American ash
114	Magnolia virginiana	sweetbay magnolia
115	Platanus x acerifolia	London planetree
116	Liquidambar styraciflua	American sweetgum
117	Ilex cornuta	Chinese holly
118	Ilex cornuta	Chinese holly
119	Cornus florida	flowering dogwood
120	Tilia americana	American basswood
121	Tilia americana	American basswood
122	Tilia cordata	littleleaf linden
123	Platanus x acerifolia	London planetree
124	Platanus x acerifolia	London planetree
125	Platanus x acerifolia	London planetree
126	Liriodendron tulipifera	tuliptree
127	Crataegus phaenopyrum cv.	Washington hawthorn cv.
128	Crataegus phaenopyrum cv.	Washington hawthorn cv.
129	Crataegus phaenopyrum cv.	Washington hawthorn cv.
130	Quercus bicolor	swamp white oak
131	Liriodendron tulipifera	tuliptree
132	Liriodendron tulipifera	tuliptree
133	Amelanchier canadensis	serviceberry
134	Cornus mas	corneliancherry dogwood
135	Ilex cornuta	Chinese holly
136	Platanus x acerifolia	London planetree
137	Tilia americana	American basswood
138	Platanus x acerifolia	London planetree
139	Platanus x acerifolia	London planetree
140	Cercis canadensis	eastern redbud
141	Phellodendron amurense	Amur corktree
142	Platanus x acerifolia	London planetree
143	Platanus x acerifolia	London planetree
144	Catalpa speciosa	northen catalpa
145	Cercis canadensis	eastern redbud
146	Cercis canadensis 'Tennessee Pink'	eastern redbud 'Tennessee Pink'
147	Tilia americana	American basswood

The Morris Arboretum's Urban Forestry Team
9414 Meadowbrook Avenue
Philadelphia, PA 19118
215.247.5777 x189

Inv#	*Scientific Name*	*Common name*
148	Tilia cordata	littleleaf linden
149	Tilia cordata	littleleaf linden
150	Gingko biloba	ginkgo
151	Quercus rubra	northern red oak
152	Quercus bicolor	swamp white oak
153	Quercus rubra	northern red oak
154	Gymnocladus dioicus	Kentucky coffeetree
155	Quercus rubra	northern red oak
156	Platanus x acerifolia	London planetree
157	Tilia americana	American basswood
158	Ulmus americana cv.	American elm cv.
159	Platanus x acerifolia	London planetree
160	Gingko biloba	ginkgo
161	Ilex cornuta	Chinese holly
162	Gingko biloba	ginkgo
163	Acer platanoides	Norway maple
164	Crataegus phaenopyrum cv.	Washington hawthorn cv.
165	Tilia americana	American basswood
166	Tilia cordata	littleleaf linden
167	Tilia americana	American basswood
168	Prunus x incamp 'Okame'	Okame cherry
169	Tilia cordata	littleleaf linden
170	Nyssa sylvatica	black gum
171	Quercus rubra	northern red oak
172	Fraxinus americana	American ash
173	Tilia cordata	littleleaf linden
174	Catalpa speciosa	northen catalpa
175	Phellodendron amurense	Amur corktree
176	Tilia cordata	littleleaf linden
177	Tilia americana	American basswood
178	Quercus alba	white oak
179	Gleditsia triacanthos var. inermis	common thornless honeylocust
180	Gleditsia triacanthos var. inermis	common thornless honeylocust
181	Gleditsia triacanthos var. inermis	common thornless honeylocust
182	Quercus velutina	black oak
183	Platanus x acerifolia	London planetree
184	Tilia cordata	littleleaf linden
185	Liquidambar styraciflua	American sweetgum
186	Quercus rubra	northern red oak
187	Gingko biloba	ginkgo
188	Quercus bicolor	swamp white oak
189	Tilia americana	American basswood
190	Platanus x acerifolia	London planetree
191	Platanus x acerifolia	London planetree
192	Gleditsia triacanthos var. inermis	common thornless honeylocust
193	Gleditsia triacanthos var. inermis	common thornless honeylocust
194	Gleditsia triacanthos var. inermis	common thornless honeylocust
195	Ulmus americana cv.	American elm cv.
196	Celtis occidentalis	common hackberry

The Morris Arboretum's Urban Forestry Team
9414 Meadowbrook Avenue
Philadelphia, PA 19118
215.247.5777 x189

Inv#	*Scientific Name*	*Common name*
197	Platanus x acerifolia	London planetree
198	Tilia americana	American basswood
199	Styphnolobium japonicum	Japanese pagodatree
200	Tilia americana	American basswood
201	Tilia americana	American basswood
202	Quercus bicolor	swamp white oak
203	Tilia americana	American basswood
204	Gleditsia triacanthos var. inermis	common thornless honeylocust
205	Gleditsia triacanthos var. inermis	common thornless honeylocust
206	Gleditsia triacanthos var. inermis	common thornless honeylocust
207	Platanus x acerifolia	London planetree
208	Franklinia alatamaha	Franklinia
209	Acer rubrum	red maple
210	Taxodium distichum	baldcypress
211	Platanus x acerifolia	London planetree
212	Platanus x acerifolia	London planetree
213	Ulmus americana cv.	American elm cultivar
214	Tilia americana	American basswood
215	Catalpa speciosa	northen catalpa
216	Tilia cordata	littleleaf linden
217	Tilia americana	American basswood
218	Tilia cordata	littleleaf linden
219	Quercus imbricaria	shingle oak
220	Ulmus americana cv.	American elm cultivar
221	Fraxinus americana	American ash
222	Cladrastis kentukea	American yellowwood
223	Cladrastis kentukea	American yellowwood
224	Fraxinus americana cv.	American ash cv.
225	Quercus cerris	Turkey oak
226	Quercus accutissima	sawtooth oak
227	Tilia americana	American basswood
228	Quercus rubra	northern red oak
229	Tilia americana	American basswood
230	Phellodendron amurense	Amur corktree
231	Acer saccharum	sugar maple
232	Platanus x acerifolia	London planetree
233	Platanus x acerifolia	London planetree
234	Magnolia x soulangiana	saucer magnolia
235	Magnolia x soulangiana	saucer magnolia
236	Magnolia x soulangiana	saucer magnolia
237	Lagerstroemia indica 'Pink Velour'	common crapemyrtle 'Pink Velour'

The Morris Arboretum's Urban Forestry Team
9414 Meadowbrook Avenue
Philadelphia, PA 19118
215.247.5777 x189

Washington Square
Independence National Historic Park
Soil Conditions Report

Prepared for:
Independence National Historic Park
143 South 3rd Street
Philadelphia, PA 19106

Prepared by:
Jason Lubar
Associate Director of Urban Forestry
Morris Arboretum of the University of Pennsylvania
9414 Meadowbrook Avenue
Philadelphia, PA 19118



December 2010

Prepared by: **Jason Lubar – *Associate Director of Urban Forestry***
Morris Arboretum of the University of Pennsylvania
9414 Meadowbrook Avenue,
Philadelphia, PA 19118
215-247-5777 x189

© 2010

BACKGROUND

Washington Square, originally designated in 1682 as Southeast Square, is an open-space park in Center City Philadelphia's southeast quadrant and one of the five original planned squares laid out on the city grid by William Penn's surveyor, Thomas Holme. It is part of the Washington Square West and Society Hill neighborhoods.

The square is home to the Tomb of the Unknown Soldier memorial (front cover) and the "Moon Tree", a now severely declining sycamore that was grown from seeds that had been carried to the moon. On a warm summer day, many residents and visitors use the square as a place to relax under the shade of the numerous mature trees or on the sunny, grassy areas between the trees. This recreational use has caused scattered bare areas in the turf.

The National Park Service, who oversees operations in Washington Square, was concerned about balancing turf, tree, and user requirements, and issued a Request for Quotes (RFQ) #Q4450100428 for soil testing services at the Square. In September 2010, The Morris Arboretum of the University of Pennsylvania was awarded the contract for these services. Prior to this, the Morris Arboretum's Urban Forestry Consultants have performed tree-related services at the Square including a tree inventory and a hazard tree assessment.

On 29 September 2010, Morris Arboretum's Urban Forestry Consultants visited the Square and gathered the necessary soil samples to complete the RFQ's scope of service. The tests were used to analyze the soil's physical and chemical properties, to help identify problem areas, and to seek feasible solutions for improving soil conditions.

ASSIGNMENT

The National Park Service listed a scope of work in its RFQ #Q4450100428, issued 08/26/2010, for soil testing services at Washington Square.

The soil tests/investigations included:

- Fertility
- Organic Matter Content
- Particle Size Analysis
- Sand Sieve analysis
- Bulk Density
- Soil Texture

Submitting a written report with soil-related recommendations was also required in RFQ #Q4450100428.

Morris Arboretum of the University of Pennsylvania
© 2010
9414 Meadowbrook Avenue,
Philadelphia, PA 19118
215-247-5777 x189

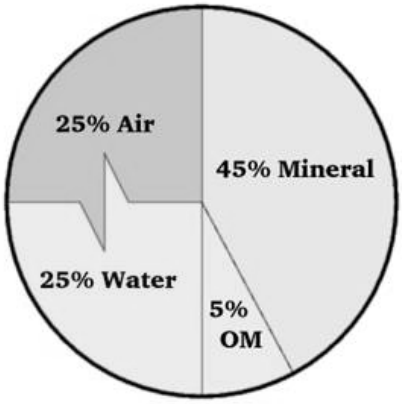
SOILS: INTRODUCTION AND TEST DESCRIPTIONS

To better understand the soil tests, results, and recommendations, this section provides an overview of soil-related topics such as texture and particle size, fertility, compaction, organic matter content, pH, soil density, and how these topics can affect drainage and tree health.

Soil is an essential landscape component at Washington Square and has a profound effect on tree and landscape health. It is the basic matrix for growth of landscape plants, grass, as well as the substrate for tree anchorage and sustenance. With the exception of nutrient management, opportunities for soil amendment and improvement are more practical when establishing new landscapes. It is more difficult and costly to modify or improve soils in existing landscapes without harming trees. Understanding soil characteristics is essential to establish and maintain a healthy landscape at Washington Square.

SOIL CHARACTERISTICS

The basic components of soil are minerals, organic matter, air, and water. A typical soil consists of approximately 45% mineral, 5% organic matter, 20-30% water, and 20-30% air. These percentages are only generalizations. In reality, soil is very complex and dynamic. The composition of the soil can fluctuate on a daily basis depending on numerous factors such as water supply, compaction, and soil type.

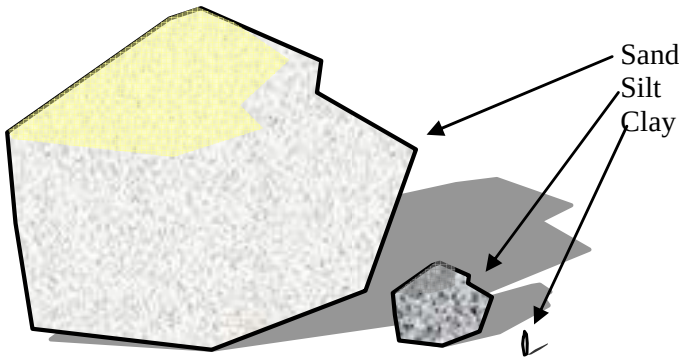


Graphic 1: Typical Soil Composition

Soil minerals play a vital role in soil fertility since mineral surfaces serve as potential sites for nutrient storage. Different sized particles in the mineral component can hold and retain different amounts of nutrients. Therefore, it is helpful to know the composition of particle sizes within the soil, known as soil texture.

SOIL TEXTURE

Soils contain particles that range from very large boulders to tiny particles invisible to the naked eye. Soil particles can be separated into the coarse fraction and the fine earth fraction. The majority of the soil composition at Washington Square falls into the fine earth fraction, which includes any particle less than 2.0 millimeters and is further divided into three classes of size: sand, silt, or clay.



Graphic 2: Relative sizes of soil particles

The overall soil composition based on the percentage of each size particle enables soil

© 2010

to be arranged into categories such as "loam" or one of 11 other descriptive soil classes as shown within the soil triangle in Appendix B (page 18). Each texture class differs in basic soil characteristics such as compaction potential, water holding capacity, water and air permeability, soil fertility and other soil attributes.

SOIL FERTILITY

Soil fertility refers to the amount of nutrients in the soil sufficient to support plant life. Fertile soil needs macronutrients such as nitrogen, potassium and phosphorous; and micronutrients such as sulfur, chlorine, copper, manganese, molybdenum, boron, iron, cobalt, magnesium, zinc and chlorine. Fertile soil contains organic matter and micro- and macro-organisms which are important for soil "health".

The soil fertility tests results, shown in Appendix D (page 27), provide measurements including acidity/alkalinity (pH), macronutrient levels (phosphorous, potassium, magnesium, calcium), exchangeable cations (CEC) and % saturation (potassium, magnesium and calcium). Nutrient tests also provide fertilizer recommendations for a given crop, in this case tree cover.

SOIL ORGANIC MATTER

Soil organic matter includes all organic (carbon-containing) substances within the soil such as:

- Living organisms
- Remains of microorganisms that once inhabited the soil
- Remains of plants and animals
- Organic compounds that have been decomposed within the soil and have been reduced to complex and relatively stable substances commonly called humus.

Organic matter in the soil is highly desirable, insuring a continuous food source for soil organisms. As the organisms decompose the organic materials, they help maintain good soil structure, making the soil a more favorable place for root development. The decomposition process improves the soil structure by developing compounds that cement small soil particles together into aggregates, allowing for both increased drainage and moisture retention. Decomposition also changes the organic matter into inorganic nutrients that can be used by growing plants. At Washington Square and in our general area, an acceptable percentage of organic matter should be about 3-5% of the soil's volume. The organic test results are found on each sample's fertility test report in Appendix D (page 27).

SOIL BULK DENSITY/COMPACTION

Soil bulk density equals the mass of the soil divided by its volume. This measurement is usually stated in grams/cubic centimeter (g/cc or g/cm$^{3)}$. Soil bulk density depends greatly on the soil's mineral composition and the degree of compaction. Generally, rocks have a bulk density of about 2.65 g/cm^3 so ideally, a medium textured soil with about 50 percent pore space (for air and water) will have a bulk density of 1.33 g/cm^3.

When a soil becomes compacted, its bulk density increases as pore space decreases. Tree roots have evolved with the ability to compensate for differing soil compaction within a certain range. The root's ability to compensate for increased bulk density depends on tree species, soil texture, amount of soil water and other factors. When compaction causes soil density to exceed the root's ability to penetrate into and through the soil, the soil density is said to be "limiting" to root elongation. At the extreme, compacted soil can be so dense that roots cannot penetrate into it, making the surrounding soil unavailable.

soil texture	root-limiting bulk density (g/cc)
sand	1.8 g/cc
fine sand	1.75
sandy loam	1.7
fine sandy loam	1.65
loam	1.55
silt loam	1.45
clay loam	1.5
clay	1.4

Table 1: Root limiting density for different soil textures. From *Soil Compaction & Trees: Causes, Symptoms & Effects* by Dr. Kim D. Coder, University of Georgia July 2000

Compacted soil with root limiting densities can lead to a host of tree maladies such as tree decline and death, chlorosis, branch dieback, an increase in pest insects and diseases, and surface roots that can be damaged by lawn mowers. Also, high soil density interferes with water percolation and drainage, resulting in increased runoff and increased possibility of plant-related water stress.

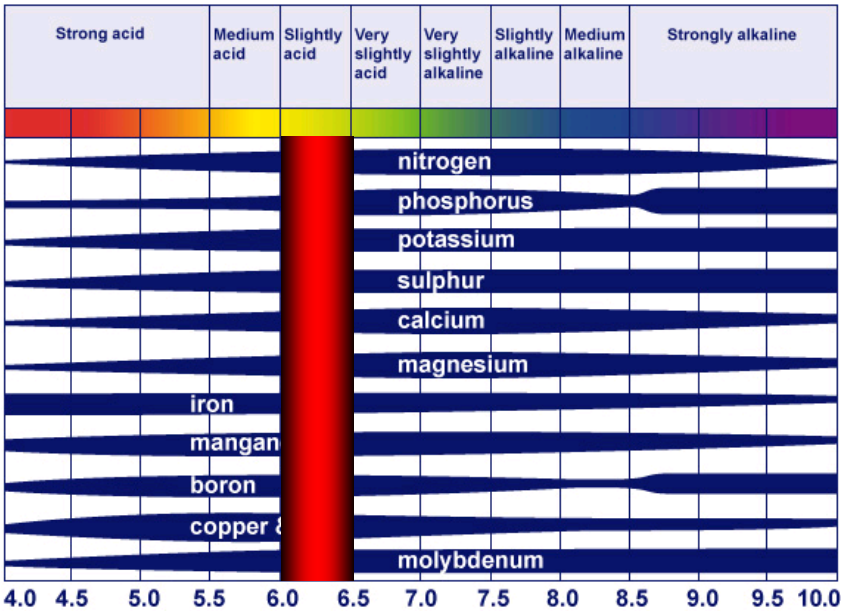
At Washington Square, the root-limiting bulk density starts at about 1.6 g/cm^3 given the soils are loam-sandy loam. The soil bulk density results are in Appendix F (page 37).

SOIL pH

Soil pH is a measure of how acidic or basic a soil is and is one of the most important soil properties because it influences nutrient solubility, microbial activity, and root growth.

Acidic pH value range from 0 to 6.5; neutral pH values from 6.5 to 7.5; and basic pH values from 7.5 to 14. Normally, evergreen trees grow best on acidic soils while hardwoods, like the trees in Washington Square, prefer slightly acidic to neutral soils. However, most tree species can thrive over a relatively broad range of pH values.

Graphic 3: Soil pH chart with Washington Square test results shaded



© 2010

As stated, soil pH influences nutrient uptake and tree growth. Chemical reactions in the soil are largely controlled by soil pH so that trees may or may not be able to use these nutrients, depending on the need of each particular species. Soils with a pH of 6.5 - 7.0 generally provide the best growing conditions because most nutrients are readily available. Soil pH values at the extremes (<4.0 and > 8.5) can make some nutrients toxic and others unavailable to plants. At lower pH levels (<4.5), aluminum, iron, and manganese are too readily available for plant uptake. At higher pH levels (>8.5), calcium and potassium are overabundant. In these situations, many plants will take up too many of these nutrients, but not take up enough of others. This imbalance can cause toxic conditions.

Soil pH can be adjusted up or down by adding compounds and elements such as lime or sulfur. Directions on what elements to add and in what concentrations to change soil pH can be found in Appendix D (page 35) furnished by the Penn State Soil Lab.

Morris Arboretum of the University of Pennsylvania
9414 Meadowbrook Avenue,
Philadelphia, PA 19118
215-247-5777 x189
© 2010

TESTING AND ANALYSIS RESULTS

INTRODUCTION

Standard soil fertility, organic matter content, soil texture, particle size analysis, and bulk density soil tests were done in each of the eight main areas (referenced by letters "A" – "H") delimited by pathways and other hardscapes in Washington Square. A map of soil test site locations is in Appendix G, page 38.

GENERAL OBSERVATIONS

The soil profile from the subsamples was visually inspected. The subsamples from all areas have similar soil profiles and characteristics; there is generally a four to six-inch layer of dark gray to black topsoil above a denser layer of brown subsoil to the bottom of the sampling depth, which was generally 8-12" deep (Photos 1 and 2). The top soil has higher organic matter content than the subsoil. Generally, the subsoil has a higher bulk density than the topsoil, as concluded by how difficult it was to push the tube samplers into the deeper subsoil.

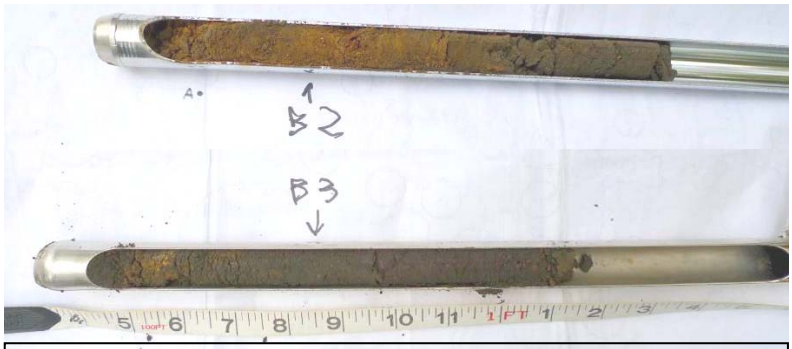


Photo 1: Subsamples B2 and B3 showing the dark topsoil over the brown subsoil.



Photo 2: Subsample A1 showing the dark topsoil over the brown subsoil - similar characteristics to test B2 in photo 1 above.

SOIL TEXTURAL CLASS

The soil samples' average texture is classified as Loam; the eight soil tests average 51.1% sand, 33.6% silt, and 15.3% clay. This breakdown is very near the classification for Sandy Loam, which is the classification for three of the eight samples as shown in Table 2. Sample "D" was divided and half was sent to Duffield Associates to produce a particle size distribution graph. This sample also is classed as Loam.

Table 2: Soil Texture Class results

Sample	sand %	silt %	clay %	class
A	53.4	31.7	14.8	sandy loam
B	54.8	29.1	16	sandy loam
C	50.8	33.8	15.4	loam
D	51.6	33	15.3	loam
E	47.8	36.3	16	loam
F	50.9	34.4	14.7	loam
G	46	36.7	17.2	loam
H	53.5	33.5	13	sandy loam
avg.	***51.1***	***33.6***	***15.3***	

Loamy soil is a medium textured soil grossly characterized by a mix of particle sizes, moderate infiltration and percolation, and the ability to hold water & nutrients while still allowing the water to flow freely. According to Phillip Craul (*Urban Soil in Landscape Design, 1992*), loamy soils are also characterized by:

© 2010

- Susceptibility to compaction: moderate
- Nutrient holding capacity: moderate
- Available water (as % of total soil volume): 10-16%
- Infiltration rate: about 1 inch/hour.

SAND SIEVE ANALYSIS:

Within the eight soil tests, the sand portion of the tests was uniform, with negligible variation. Typically, the soil samples were composed of about 10% gravel (particles >2 mm); about 35% sand (1/20 mm to 2 mm size particles) and the remaining 50-60% is considered "fines" (silt and clay) whose particle size is less than 1/20mm.

SOIL FERTILITY:

Soil Organic Matter:

The soil's organic matter content is acceptable and ranges from 2.4 to 5.1 %, averaging about 3% in the soil tests. However, the soil samples contained a mixture of the soil from the top ~10". Test "H" included only the dark gray-black topsoil from the top 4-5" and not the topsoil/subsoil mix that comprised the other tests. The result is that the topsoil layer has an organic matter content that is about 40% higher than the subsoil.

Table 3: pH and organic matter results

Sample	pH	organic matter
A	6.3	3.3
B	6.5	2.7
C	6.2	2.6
D	6.1	2.4
E	6	2.4
F	6.3	2.6
G	6.2	2.9
H	6.1	5.4
avg	***6.21***	***3.04***

Soil pH:

The soil test pH at Washington Square, shown in Table 3, ranged in pH from 6.0 to 6.5 and averaged 6.21. The soils tests in Appendix D list the soil pH as slightly below optimum. This is only because the tests results were based on "Landscape Maintenance at a pH level of 7.0". Because deciduous trees thrive in slightly acid soil, the pH level of Washington Square soils requires no corrective actions.

Soil Nutrient Levels:

The results of the laboratory analysis are meaningless by themselves; they must be interpreted by relating the lab values to known crop responses, in this case trees, under local conditions.

- **Phosphorus**: Readings slightly above optimum. Phosphorus tends to accumulate following repeated applications of fertilizers containing phosphorus. Additional applications of phosphorus will be wasteful and may lead to excessive and toxic levels. Phosphorus is often implicated in tying up micronutrients in the soil. However, root disorders caused by soil compaction, construction damage, or drought may be somewhat alleviated by an "above optimum" phosphorus level because it promotes new root growth.

- **Magnesium:** Readings slightly above optimum. Magnesium toxicity is rare, and since the readings are slightly above optimum, it is no cause for concern. Crops grown on heavy

magnesium-rich soils that have been poorly fertilized with potassium may exhibit excesses of magnesium in their tissue. But, before the tissue level approaches toxicity, potassium deficiency will occur.

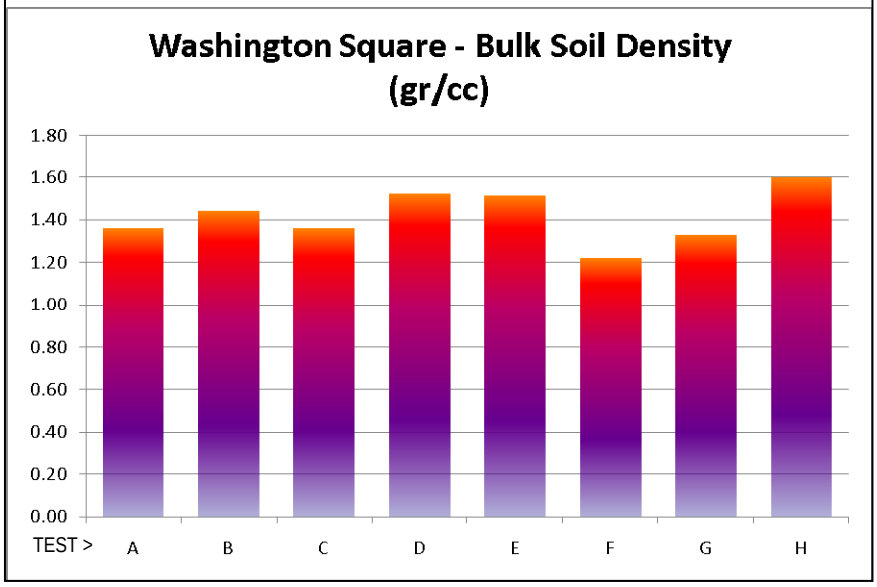
- **Potassium & Calcium**: The concentrations of potassium and calcium were slightly below optimum; however, test "H" lists the concentration of potassium and calcium as optimum. Test "H" included only the dark gray-black topsoil, and not the topsoil/subsoil mix that comprised the other tests. Acid soils have less calcium, and high pH soils normally have more.

- **Cation Exchange Capacity (CEC):** CEC is a measure of soil fertility. Cations are positively charged ions such as hydrogen and magnesium which attract and adhere to negatively charged surfaces of clay and organic matter, creating stores of nutrients for plant growth. Potassium, calcium, and magnesium are nutrient cations that dissolve in water and would wash out of the soil if they were not held by the CEC. As demonstrated by nutrient levels, the CEC (average = 11.85 meq/100gr) is adequate for the Square's soil.

SOIL BULK DENSITY

Soil bulk density results ranged from 1.22 to 1.6 grams per cubic centimeter, and averaged 1.42 g/cc to a sampling depth of about 5". The standards[1] state that, for designed and installed soil, the optimum density is 1.4 -1.5 g/cc. The tree root growth limiting density for loam/sandy loam soils is about 1.6 g/cc, so none of the bulk density tests were above the tree root-limiting threshold.

Table 4:



[1] ASTM D-2937-83 or AASHTO 180

© 2010

DISCUSSIONS & RECOMMENDATIONS

From our analysis of the soils and soil test results at Washington Square, we conclude that the soil quality is acceptable. The National Park Service should strive to maintain the Square's soil quality to help insure the biological health and landscape function of turf, shrubs, and trees, thereby enhancing user experience.

The following discussions and recommendations should be used to help guide soil management at the Square. Since the following soil management topics are inter-related, reading this entire section is recommended.

SOIL MANAGEMENT

SOIL DECOMPACTION AROUND TREES

Even though the Square's soil quality is acceptable, adding organic matter and decompacting soil would help maintain tree health and vigor, especially for older, declining, or more important landscape trees. One method of "soil invigoration" around trees that minimizes root damage would be to use an air tool[2] to decompact the soil and mix in organic material. This process can be done over time to allow the tree to adjust to the new soil conditions, and is featured on Bartlett Tree Expert's web site: www.bartlett.com/commercial-fertilization.cfm?cs. The Morris Arboretum does not endorse or recommend any specific tree care company, but offers this methodology to the National Park Service as an example of a soil decompaction and enrichment.

If the park Service decides to pursue this soil management technique, we recommend that specific trees be targeted and that this work be done strategically, so that budgets and work schedules can be established and implemented.

Photo3: Using an air tool to excavate around tree roots without harming them.



ADDING ORGANIC MATERIAL

Tree leaves are an important and free source of nutrients and organic matter, and are a resource that should be retained and used on site. Turf mowers with specialized mulching blades should be used during the fall to mulch the leaves into the turf and soil. This mulching should be done often enough so that as many leaves as practical are mulched on site as to not become a negative issue for surrounding property owners.

Also, to keep soil "healthy" and to help alleviate compaction, it is useful to add additional organic matter periodically, especially if leaves are removed from the Square. The soil at the Square can be top-dressed with a very thin layer (1/8-inch or so) of organic matter such as well-rotted or decomposed compost, used mushroom soil, etc., in April or May and again in

[2] a tool that, when attached to an air compressor, concentrates the airflow to supersonic speeds and can excavate soil around trees with minimal root damage

© 2010

September or October. Given the lawn area at Washington Square, an estimated 60 cubic yards of material would be needed for each treatment.

REDUCE COMPACTION

Riding mowers and other maintenance equipment used on turf areas should have low-compaction (wide) tires to help reduce soil compaction. If possible, avoid mowing when the soil has high moisture content since wet soil compacts more easily.

If heavier vehicles need to access turf areas, compaction-limiting mats (or other anti-compaction methodology) rated for the vehicle's weight should be installed before any vehicle access. Soil compaction can be avoided if work could be scheduled when the ground is frozen.

Also, regular core-extracted soil aeration would benefit the soil over time. Mechanical tillers are not recommended because they can damage tree roots.

SOIL TESTING

Soil fertility testing should be completed at least once every two years before fertilizers are applied in the spring. Fertilizer and other soil additives should be customized to the tests' findings and recommendations. It may be beneficial for the Park Service to engage Washington Square's partners, Philadelphia's Department of Parks and Recreation and the Washington Square Park's Friends group, to carry out soil fertility testing.

TURF MANAGEMENT

Turf roots, especially cool season grasses like Kentucky bluegrass and fescue, typically out-compete tree roots and win the below-ground battle for water, mineral nutrients, and growing space, especially where turf is highly managed.

In our natural ecosystems, trees and turf tend to be mutually exclusive - you won't see many trees growing in the prairies or grasslands, and grass is uncommon on the undisturbed forest floor. Designed urban parks, such as Washington Square, are an unnatural ecosystem where two somewhat incompatible plant types are forced to grow in close proximity and where optimum performance is expected from each. Also, trees can be at a disadvantage because turf mowers and maintenance equipment compact the soil, resulting in declining tree health.

However, trees and turf can successfully coexist; even thrive, in a landscape. Armed with an understanding of how each affects the other, park managers can modify the environment and the maintenance procedures to optimize the growing conditions for both.

USING HERBICIDES

Herbicides, especially broadleaf weed killers, are often used on lawns. Most trees are broadleaved plants, and can be injured or killed if high enough doses of herbicide reach them. Also, most "weed and feed" fertilizers contain herbicides which can damage trees. Therefore, broadleaf herbicides should be used only where necessary and the label instructions should be followed.

Morris Arboretum of the University of Pennsylvania
9414 Meadowbrook Avenue,
Philadelphia, PA 19118
215-247-5777 x189
© 2010

IRRIGATING TURF

Supplement water and nutrients to reduce the effects of competition in areas where trees and turf must grow together. Turf can be irrigated during dry periods, but keep the irrigation stream from wetting tree trunks, which promotes bark decay. Trees respond better to occasional deep soakings than to the more frequent light watering for turf.

TURF PERFORMANCE

- During the soil survey fieldwork at Washington Square, the Morris Arboretum's Urban Forestry Consultants noticed poor turf performance sporadically in the turf areas, but mainly under tree canopies. Given that the soil is not profoundly compacted and nutrient and organic matter levels are satisfactory, we opine that poor turf grass performance is primarily caused by low light levels and exacerbated by wear and tear by foot traffic. Therefore, we recommend that the most shade tolerant grass be used in the areas of poor turf performance in shady areas.
- Arboricultural tasks such as raising the tree canopy and selective thinning to allow more light penetration can be effective in enhancing turf performance, but should only be done if the pruning does not jeopardize tree health.
- It may benefit turf performance if areas are over-seeded yearly in the fall.
- Crumb rubber could be used in test area to test their anti-compaction performance. "*When topdressed, crumb rubber can extend turfgrass wear tolerance and reduce soil compaction in high traffic areas. These high traffic areas exist on every athletic field as well as walk paths, golf courses, and main event venues on campus*"[3]. The methodology for using crumb rubber would need to be researched to determine the optimum application rate and particle size for the Square.



Photo 4: Crumb Rubber

TURF RENOVATION

Renovated turf areas should be fenced off to prevent pedestrian traffic until the new grass has time to fully establish. It may also be prudent to develop a turf renovation cycle where a chosen square footage of turf area, say 1/10 of the entire turf area in the park, is closed off for 1 year and renovated. The next year, the next section would be closed off, etc., until a turf renovation cycle is completed. A ten-year rotation would result if this example were followed.

If not already established, The Park Service should develop standards for an aesthetically pleasing, semi-permanent fencing material that would be used to accomplish turf restricted areas. Also, standardized signage explaining why the area is closed may increase the efficacy of the fencing.

[3] Dr. J.N. Rogers, III, and J.T. Vanini, *Topdressing with Crumb Rubber from Used Tires on Athletic Fields and Other High Traffic Turf Areas*, Department of Crop and Soil Sciences, Michigan State University, 1994

NUTRIENT MANAGEMENT

Applying fertilizer and other soil additives should be guided by soil tests' findings and recommendations.

The Penn State fertilizer tests recommend applying a 10-10-10 (nitrogen-phosphorous-potassium) mix. However, because of the relatively high levels of phosphorous, we recommend that only fertilizers that contain no phosphorus, such as 10-0-10, be used at Washington Square. The "no phosphorus" approach should be used until soil tests indicate that phosphorus has dropped to "optimum" levels.

We recommend that the fertilizer used at the Square contain at least 50% WIN (water insoluble nitrogen). This will help assure that nitrogen is released slowly, at a rate that makes it available to plants over a long period, so they do not need to be applied as frequently as other fertilizers and there is less potential of leaching into ground water or surface runoff.

Timing: Fertilize trees in the spring or fall. Spring fertilizer application should be made before new growth starts. Fall fertilization should be made approximately one month after the first hard frost. Do not apply slow-release fertilizers mid to late in the season (after July 15 to mid August) because they may stimulate plant growth late in the summer. The late season growth may not "harden off" completely, and winter damage may occur.

TREE MANAGEMENT

SOIL CIRCLES AROUND TREES

Since grass competes with tree roots for resources, turf removal, in an area as large as desired around a tree's base, will encourage tree growth and health (Photo 5). An added benefit is that this will make it is unnecessary for mowing equipment to get close to the tree's trunk flare which could damage tree trunks and above-ground roots. Larger areas are recommended around trees with surface roots that are susceptible to damage from mowers. However, this may conflict with the turf coverage goals at the Square.



Photo 5: Soil circle around a tree at Morris Arboretum

To remove turf around trees, spray the area with Rodeo® (chemical compound: *glyphosate*) or its equivalent around the base of trees in lawn areas. Care should be taken to avoid spraying thin-barked trees or the trunk, roots, or any suckers arising from the trunk or roots.

© 2010

These bare areas will need to be sprayed periodically to control weeds, but this maintenance task will quicken over time because of depleted seed source in the soil.

If bare areas around the trees are too esthetically unappealing, these areas could be mulched with a double-ground material that would provide a finished look to the landscape and soil nutrients in the mulched area. However, mulching increases maintenance costs because it needs to be redone every one to two years. If mulch is to be installed, cover as much of the tree's surrounding area as is practical, using no more than two inches of material. Mulch should *never* be placed in direct contact with the tree's trunk.

WATER MANAGEMENT

IRRIGATION:

We recommend that an irrigation system performance audit be done periodically. A performance audit includes turning off and on each irrigation system zone (if there are zones) and inspecting the irrigation system components to insure that they are functioning properly. This should occur at least once per year but may be required more frequently.

The audit should include calibrating the amount of water and distribution of water delivered to the target beds or lawn areas. The output of the irrigation head or nozzle type may need to be changed to provide uniform coverage and uniform water quantity delivery. Tree trunks should not be moistened directly by irrigation spray.

The Morris Arboretum's Urban Forestry Consultants noticed three to four locations where the irrigations system may be leaking. These small areas of standing water, and one area where water was flowing across a main park entrance could create slippery and hazardous conditions, especially because of ice formation in freezing temperatures.

.

© 2010

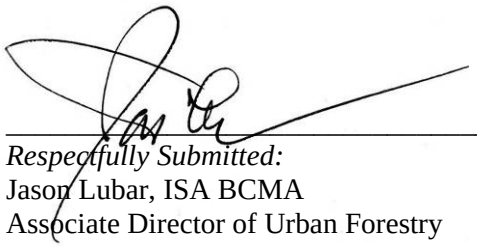
LIMITING CONDITIONS

Soil Testing: The Penn State Agricultural Analytical Services Laboratory tested soil fertility, organic matter content, particle size and sand sieve analysis tests. Duffield Associates performed a grain size analysis on one test. The Morris Consultants are not responsible for the accuracy or results of soil tests performed by others.

Limited Scope: Information gathered and presented in this report represents conditions at the time of the inspection visit. Conditions can degrade or change for many reasons.

CERTIFICATION

I certify that I am a member in good standing of the International Society of Arboriculture and am a Board Certified Master Arborist. I further certify that I represent the Morris Arboretum of the University of Pennsylvania and that this is my work product based on my professional judgment and current industry standards and understanding. This report, as a whole or in part, is for the sole use of the client and may not be sold, distributed, or used for other purposes without written permission of the author.



13 December 2010
Date

Respectfully Submitted:
Jason Lubar, ISA BCMA
Associate Director of Urban Forestry

© 2010

APPENDIX A: SOIL SAMPLE METHODOLOGY

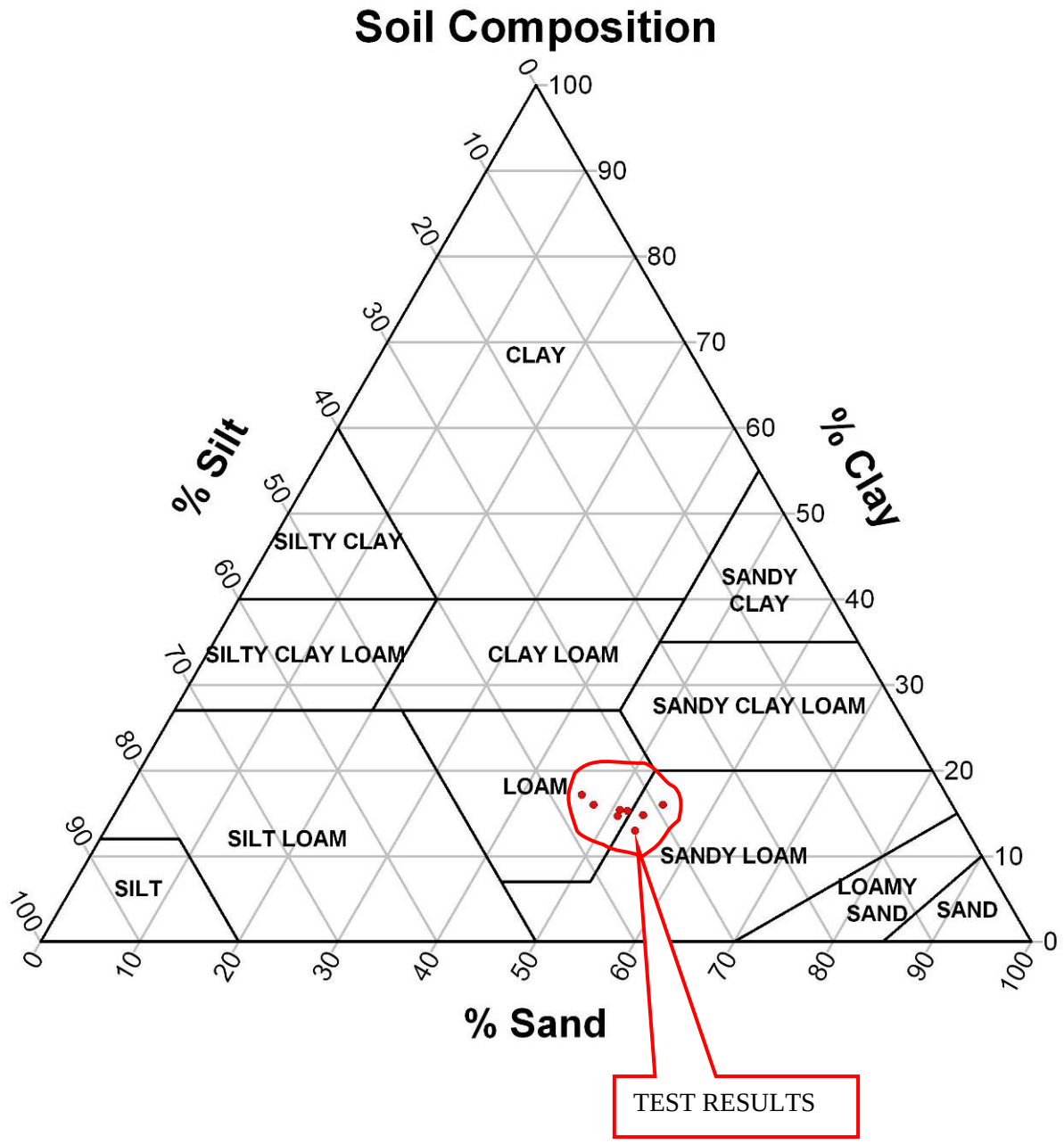
The Washington Square soil tests required sensitivity to the site's archeology, Approval from the National Park Service (NPS) for sampling and method protocols was necessitated.

Soil sampling was done by the Morris Arboretum's Urban Forestry Consultants and the samples were sent (except bulk density) to Penn State's Agricultural Analytical Services Laboratory for chemical and physical analysis. One sample, "D", was divided and sent to Duffield Associates, Inc., 5400 Limestone Road, Wilmington, DE 19808. This sample was tested for Grain Size Analysis and appears in Appendix E (page 36).

Standard soil fertility, organic matter content, soil texture, particle size analysis, and bulk density soil tests were done in each of the eight main areas (referenced by letters "A" – "H") delimited by pathways and other hardscapes in Washington Square. A map of soil site locations is located in Appendix G (page 38). All soil test results are appended to this report. Soil tests methodology was as follows:

- Twelve randomly located subsamples were gathered in each quad, designated A through H. These sample sites are shown in Appendix F, and are named by the Quad letter + the subsample number, e.g. A5 = the fifth soil subsample taken in Quad "A". The 12 subsamples from each Quad were thoroughly mixed, grass was removed, the samples dried, and sent to the soil laboratory for soil fertility, organic matter content, soil texture, and particle size analysis and testing.
- Because of the uniformity of samples during the site visit, the consultants decided to take the final soil sample, Sample "H", from **only** from the dark, upper layer of topsoil. There was no change in methodology for the bulk density test for area "H".
- The subsamples were taken using an AMS 40" tube-type soil sampler with a 7/8-inch outside diameter and 1/2-inch inside diameter capable of sampling to a 12-inch depth. Because of the randomness of the samples, and the existence of irrigation and other utility lines at Washington Square, each of the sub-samples exact position was chosen on-site by the consulting team.
- The bulk density sample was taken using an AMS Core Soil Sampler with a 2.25-inch outside diameter and a 2-inch inside diameter capable of sampling to a 7-inch depth. The exact site of these samples was selected at the discretion of the consultant. The volume of the soil samples were calculated, the soil in each sample was oven-dried and weighed on a scale with a rated accuracy of ± 1/10 gram.

APPENDIX B: WASHINGTON SQUARE SOIL TEXTURE RESULTS



Morris Arboretum of the University of Pennsylvania
9414 Meadowbrook Avenue,
Philadelphia, PA 19118
215-247-5777 x189
© 2010

APPENDIX C: PARTICLE SIZE ANALYSIS

PENNSTATE
1855
(814) 863-0841 Fax (814) 863-4540
Agricultural Analytical Services Laboratory
The Pennsylvania State University
University Park PA 16802
http://www.aasl.psu.edu

SOIL TEST REPORT FOR:	ADDITIONAL COPY TO:
JASON LUBAR MORRIS ARBORETUM 100 NORTH WESTERN AVE Philadelphia PA 19118	

Lab ID	CUSTOMER ID	DATE RECEIVED	DATE COMPLETE	COUNTY
S10-10277	WSQA	10/15/2010	10/28/2010	Philadelphia

Particle Size Analysis

Sand: 53.4 %
Silt: 31.7 %
Clay: 14.8 %

Soil Textural Class: Sandy Loam

Sand Sieve Analysis

Soil Seperate	Diameter Range millimeters	US Standard Sieve No.	%
Gravel	2.0 and larger	10	11.6 %
Verv Coarse Sand	2.0 - 1.0	18	1.4 %
Coarse Sand	1.0 - 0.5	35	3.2 %
Medium Sand	0.5 - 0.25	60	6.3 %
Fine Sand	0.25 - 0.10	140	9.6 %
Verv Fine Sand	0.10 - 0.05	270	11.0 %
Fines	less than 0.05	--	56.9 %

© 2010

PENNSTATE

(814) 863-0841 Fax (814) 863-4540
Agricultural Analytical Services Laboratory
The Pennsylvania State University
University Park PA 16802
http://www.aasl.psu.edu

SOIL TEST REPORT FOR:	ADDITIONAL COPY TO:
JASON LUBAR MORRIS ARBORETUM 100 NORTH WESTERN AVE Philadelphia PA 19118	

Lab ID	CUSTOMER ID	DATE RECEIVED	DATE COMPLETE	COUNTY
S10-10271	WSQB	10/15/2010	10/28/2010	Philadelphia

Particle Size Analysis

Sand: 54.8 %

Silt: 29.1 %

Clay: 16.0 %

Soil Textural Class: Sandy Loam

Sand Sieve Analysis

Soil Seperate	Diameter Range millimeters	US Standard Sieve No.	%
Gravel	2.0 and larger	10	14.0 %
Verv Coarse Sand	2.0 - 1.0	18	1.5 %
Coarse Sand	1.0 - 0.5	35	3.3 %
Medium Sand	0.5 - 0.25	60	7.1 %
Fine Sand	0.25 - 0.10	140	11.6 %
Verv Fine Sand	0.10 - 0.05	270	9.6 %
Fines	less than 0.05	--	52.9 %

© 2010

PENNSTATE

(814) 863-0841 Fax (814) 863-4540
Agricultural Analytical Services Laboratory
The Pennsylvania State University
University Park PA 16802
http://www.aasl.psu.edu

SOIL TEST REPORT FOR:	ADDITIONAL COPY TO:
JASON LUBAR MORRIS ARBORETUM 100 NORTH WESTERN AVE Philadelphia PA 19118	

Lab ID	CUSTOMER ID	DATE RECEIVED	DATE COMPLETE	COUNTY
S10-10272	WS8C	10/15/2010	10/28/2010	Philadelphia

Particle Size Analysis

Sand: 50.8 %

Silt: 33.8 %

Clay: 15.4 %

Soil Textural Class: Loam

Sand Sieve Analysis

Soil Seperate	Diameter Range millimeters	US Standard Sieve No.	%
Gravel	2.0 and larger	10	13.2 %
Very Coarse Sand	2.0 - 1.0	18	2.1 %
Coarse Sand	1.0 - 0.5	35	3.6 %
Medium Sand	0.5 - 0.25	60	6.6 %
Fine Sand	0.25 - 0.10	140	10.9 %
Very Fine Sand	0.10 - 0.05	270	10.8 %
Fines	less than 0.05	--	52.8 %

© 2010

PENNSTATE

(814) 863-0841 Fax (814) 863-4540
Agricultural Analytical Services Laboratory
The Pennsylvania State University
University Park PA 16802
http://www.aasl.psu.edu

SOIL TEST REPORT FOR:	ADDITIONAL COPY TO:
JASON LUBAR MORRIS ARBORETUM 100 NORTH WESTERN AVE Philadelphia PA 19118	

Lab ID	CUSTOMER ID	DATE RECEIVED	DATE COMPLETE	COUNTY
S10-10276	WSQD	10/15/2010	10/28/2010	Philadelphia

Particle Size Analysis

Sand: 51.6 %
Silt: 33.0 %
Clay: 15.3 %

Soil Textural Class: Loam

Sand Sieve Analysis

Soil Seperate	Diameter Range millimeters	US Standard Sieve No.	%
Gravel	2.0 and larger	10	10.4 %
Very Coarse Sand	2.0 - 1.0	18	1.2 %
Coarse Sand	1.0 - 0.5	35	2.4 %
Medium Sand	0.5 - 0.25	60	6.2 %
Fine Sand	0.25 - 0.10	140	11.8 %
Very Fine Sand	0.10 - 0.05	270	12.2 %
Fines	less than 0.05	--	55.7 %

© 2010

PENNSTATE
1855
(814) 863-0841 Fax (814) 863-4540
Agricultural Analytical Services Laboratory
The Pennsylvania State University
University Park PA 16802
http://www.aasl.psu.edu

SOIL TEST REPORT FOR:	ADDITIONAL COPY TO:
JASON LUBAR MORRIS ARBORETUM 100 NORTH WESTERN AVE Philadelphia PA 19118	

Lab ID	CUSTOMER ID	DATE RECEIVED	DATE COMPLETE	COUNTY
S10-10278	WSQE	10/15/2010	10/28/2010	Philadelphia

Particle Size Analysis

Sand:	47.8	%
Silt:	36.3	%
Clay:	16.0	%

Soil Textural Class: Loam

Sand Sieve Analysis

Soil Seperate	Diameter Range millimeters	US Standard Sieve No.	%
Gravel	2.0 and larger	10	9.5 %
Verv Coarse Sand	2.0 - 1.0	18	1.4 %
Coarse Sand	1.0 - 0.5	35	2.9 %
Medium Sand	0.5 - 0.25	60	6.3 %
Fine Sand	0.25 - 0.10	140	10.5 %
Verv Fine Sand	0.10 - 0.05	270	11.1 %
Fines	less than 0.05	--	58.3 %

© 2010

PENNSTATE
1855
(814) 863-0841 Fax (814) 863-4540
Agricultural Analytical Services Laboratory
The Pennsylvania State University
University Park PA 16802
http://www.aasl.psu.edu

SOIL TEST REPORT FOR:	ADDITIONAL COPY TO:
JASON LUBAR MORRIS ARBORETUM 100 NORTH WESTERN AVE Philadelphia PA 19118	

Lab ID	CUSTOMER ID	DATE RECEIVED	DATE COMPLETE	COUNTY
S10-10273	WSQF	10/15/2010	10/28/2010	Philadelphia

Particle Size Analysis

Sand: 50.9 %

Silt: 34.4 %

Clay: 14.7 %

Soil Textural Class: Loam

Sand Sieve Analysis

Soil Seperate	Diameter Range millimeters	US Standard Sieve No.	%
Gravel	2.0 and larger	10	9.9 %
Verv Coarse Sand	2.0 - 1.0	18	1.6 %
Coarse Sand	1.0 - 0.5	35	3.4 %
Medium Sand	0.5 - 0.25	60	7.2 %
Fine Sand	0.25 - 0.10	140	11.5 %
Verv Fine Sand	0.10 - 0.05	270	11.9 %
Fines	less than 0.05	--	54.6 %

© 2010

PENNSTATE
1855
(814) 863-0841 Fax (814) 863-4540
Agricultural Analytical Services Laboratory
The Pennsylvania State University
University Park PA 16802
http://www.aasl.psu.edu

SOIL TEST REPORT FOR:	ADDITIONAL COPY TO:
JASON LUBAR MORRIS ARBORETUM 100 NORTH WESTERN AVE Philadelphia PA 19118	

Lab ID	CUSTOMER ID	DATE RECEIVED	DATE COMPLETE	COUNTY
S10-10275	WSQG	10/15/2010	10/28/2010	Philadelphia

Particle Size Analysis

Sand: 46.0 %
Silt: 36.7 %
Clay: 17.2 %

Soil Textural Class: Loam

Sand Sieve Analysis

Soil Seperate	Diameter Range millimeters	US Standard Sieve No.	%
Gravel	2.0 and larger	10	12.8 %
Verv Coarse Sand	2.0 - 1.0	18	1.4 %
Coarse Sand	1.0 - 0.5	35	3.1 %
Medium Sand	0.5 - 0.25	60	5.4 %
Fine Sand	0.25 - 0.10	140	7.5 %
Verv Fine Sand	0.10 - 0.05	270	9.0 %
Fines	less than 0.05	--	60.9 %

© 2010

PENNSTATE
1855
(814) 863-0841 Fax (814) 863-4540
Agricultural Analytical Services Laboratory
The Pennsylvania State University
University Park PA 16802
http://www.aasl.psu.edu

SOIL TEST REPORT FOR:	ADDITIONAL COPY TO:
JASON LUBAR MORRIS ARBORETUM 100 NORTH WESTERN AVE Philadelphia PA 19118	Sample "H" – Topsoil only

Lab ID	CUSTOMER ID	DATE RECEIVED	DATE COMPLETE	COUNTY
S10-10274	WSQH	10/15/2010	10/28/2010	Philadelphia

Particle Size Analysis

Sand:	53.5	%
Silt:	33.5	%
Clay:	13.0	%

Soil Textural Class: Sandy Loam

Sand Sieve Analysis

Soil Seperate	Diameter Range millimeters	US Standard Sieve No.	%
Gravel	2.0 and larger	10	6.6 %
Verv Coarse Sand	2.0 - 1.0	18	1.4 %
Coarse Sand	1.0 - 0.5	35	3.3 %
Medium Sand	0.5 - 0.25	60	6.6 %
Fine Sand	0.25 - 0.10	140	10.4 %
Verv Fine Sand	0.10 - 0.05	270	10.9 %
Fines	less than 0.05	--	60.7 %

© 2010

APPENDIX D: SOIL NUTRIENT TEST RESULTS

PENNSTATE

(814) 863-0841 Fax (814) 863-4540
Agricultural Analytical Services Laboratory
The Pennsylvania State University
University Park PA 16802
www.aasl.psu.edu

SOIL TEST REPORT FOR:	ADDITIONAL COPY TO:
JASON LUBAR MORRIS ARBORETUM 100 NORTH WESTERN AVE PHILADELPHIA PA 19118	Sample "A"

DATE	LAB #	SERIAL #	COUNTY	ACRES	FIELD ID	SOIL
10/20/2010	S10-10277		Philadelphia		Wsqa	

SOIL NUTRIENT LEVELS		Below Optimum	Optimum	Above Optimum
Soil pH				
Phosphate	(P_2O_5)			
Potash	(K_2O)			
Magnesium	(MgO)			
Calcium	(CaO)			

RECOMMENDATIONS FOR: ***Landscape, Maint, pH 7.0***

Limestone, Calcium And Magnesium Recommendations

Apply the following quantities of limestone, epsom salts and/or gypsum to the soil to correct soil pH, calcium and magnesium levels.

Calcitic Limestone: 5 lb/100 square feet
(0-3 % Mg)

Magnesium: NONE

Gypsum ($CaSO_4$): NONE

Nitrogen, Phosphate And Potash Recommendations

Apply 1.5 lbs per 100 square feet of 10-10-10.

MESSAGES

The above lime and fertilizer recommendations are for this soil sample and this season only. Nitrogen, phosphate and potash recommendations are for fertilizers containing specific ratios of nitrogen (N), phophate (P2O5) and potash (K2O). As an example 5-10-10 contains 5 % N, 10 % P2O5, and 10 % K2O. If fertilizers with the ratio(s) shown are not available, contact your local garden center or fertilizer supplier for the appropriate substitution.

LABORATORY RESULTS:

[1]pH	[2]P lb/A	Exchangeable Cations (meq/100g) [3]Acidity	[2]K	[2]Mg	[2]Ca	[4]CEC	% Saturation of the CEC K	Mg	Ca	Optional Tests: Organic Matter %	Nitrate-N ppm	Soluble salts mmhos/cm
6.3	614	2.2	0.4	2.0	7.8	12.4	3.6	16.2	62.5	3.3		

Test Methods: [1]1:1 soil:water pH, [2]Mehlich 3 (ICP), [3]Mehlich Buffer pH, [4]Summation of Cations

Home Garden-1

7556

© 2010

PENNSTATE
1855
(814) 863-0841 Fax (814) 863-4540
Agricultural Analytical Services Laboratory
The Pennsylvania State University
University Park PA 16802
www.aasl.psu.edu

SOIL TEST REPORT FOR:	ADDITIONAL COPY TO:
JASON LUBAR MORRIS ARBORETUM 100 NORTH WESTERN AVE PHILADELPHIA PA 19118	Sample "B"

DATE	LAB #	SERIAL #	COUNTY	ACRES	FIELD ID	SOIL
10/20/2010	S10-10271		Philadelphia		Wsqb	

SOIL NUTRIENT LEVELS		Below Optimum	Optimum	Above Optimum
Soil pH				
Phosphate	(P_2O_5)			
Potash	(K_2O)			
Magnesium	(MgO)			
Calcium	(CaO)			

RECOMMENDATIONS FOR: ***Landscape, Maint, pH 7.0***

Limestone, Calcium And Magnesium Recommendations

Apply the following quantities of limestone, epsom salts and/or gypsum to the soil to correct soil pH, calcium and magnesium levels.

Calcitic Limestone: 7 lb/100 square feet
(0-3 % Mg)

Magnesium: NONE

Gypsum ($CaSO_4$): NONE

Nitrogen, Phosphate And Potash Recommendations

Apply 1.75 lbs per 100 square feet of 10-10-10.

MESSAGES

The above lime and fertilizer recommendations are for this soil sample and this season only. Nitrogen, phosphate and potash recommendations are for fertilizers containing specific ratios of nitrogen (N), phophate (P2O5) and potash (K2O). As an example 5-10-10 contains 5 % N, 10 % P2O5, and 10 % K2O. If fertilizers with the ratio(s) shown are not available, contact your local garden center or fertilizer supplier for the appropriate substitution.

LABORATORY RESULTS:

[1]pH	[2]P lb/A	Exchangeable Cations (meq/100g)					% Saturation of the CEC			Optional Tests:		
		[3]Acidity	[2]K	[2]Mg	[2]Ca	[4]CEC	K	Mg	Ca	Organic Matter %	Nitrate-N ppm	Soluble salts mmhos/cm
6.5	398	2.8	0.3	1.7	6.4	11.2	2.5	15.4	57.1	2.7		

Test Methods: [1]1:1 soil:water pH, [2]Mehlich 3 (ICP), [3]Mehlich Buffer pH, [4]Summation of Cations

Home Garden-1

7550

© 2010

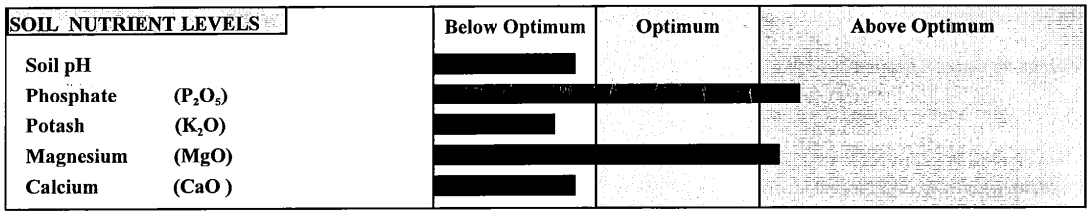
PENNSTATE

(814) 863-0841 Fax (814) 863-4540
Agricultural Analytical Services Laboratory
The Pennsylvania State University
University Park PA 16802
www.aasl.psu.edu

SOIL TEST REPORT FOR:	ADDITIONAL COPY TO:
JASON LUBAR MORRIS ARBORETUM 100 NORTH WESTERN AVE PHILADELPHIA PA 19118	Sample "C"

DATE	LAB #	SERIAL #	COUNTY	ACRES	FIELD ID	SOIL
10/20/2010	S10-10272		Philadelphia		Ws8c	

SOIL NUTRIENT LEVELS



RECOMMENDATIONS FOR: ***Landscape, Maint, pH 7.0***

Limestone, Calcium And Magnesium Recommendations

Apply the following quantities of limestone, epsom salts and/or gypsum to the soil to correct soil pH, calcium and magnesium levels.

Calcitic Limestone: 9 lb/100 square feet
(0-3 % Mg)

Magnesium: NONE

Gypsum ($CaSO_4$): NONE

Nitrogen, Phosphate And Potash Recommendations

Apply 1.5 lbs per 100 square feet of 10-10-10.

MESSAGES

The above lime and fertilizer recommendations are for this soil sample and this season only. Nitrogen, phosphate and potash recommendations are for fertilizers containing specific ratios of nitrogen (N), phophate (P2O5) and potash (K2O). As an example 5-10-10 contains 5 % N, 10 % P2O5, and 10 % K2O. If fertilizers with the ratio(s) shown are not available, contact your local garden center or fertilizer supplier for the appropriate substitution.

LABORATORY RESULTS:

[1]pH	[2]P lb/A	Exchangeable Cations (meq/100g)					% Saturation of the CEC			Optional Tests:		
		[3]Acidity	[2]K	[2]Mg	[2]Ca	[4]CEC	K	Mg	Ca	Organic Matter %	Nitrate-N ppm	Soluble salts mmhos/cm
6.2	550	3.9	0.4	1.7	6.9	12.9	3.0	13.3	53.6	2.6		

Test Methods: [1]1:1 soil:water pH, [2]Mehlich 3 (ICP), [3]Mehlich Buffer pH, [4]Summation of Cations

Home Garden-1

7551

© 2010

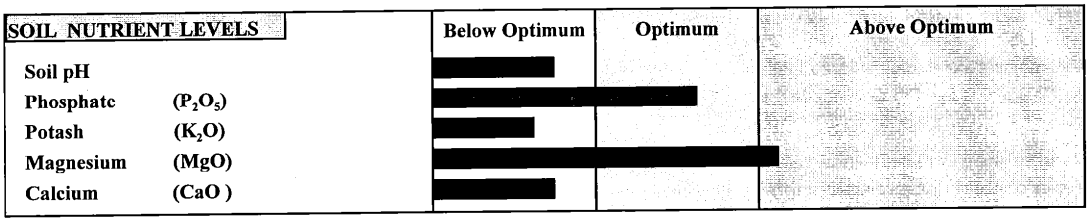
PENNSTATE

(814) 863-0841 Fax (814) 863-4540
Agricultural Analytical Services Laboratory
The Pennsylvania State University
University Park PA 16802
www.aasl.psu.edu

SOIL TEST REPORT FOR:	ADDITIONAL COPY TO:
JASON LUBAR MORRIS ARBORETUM 100 NORTH WESTERN AVE PHILADELPHIA PA 19118	Sample "D"

DATE	LAB #	SERIAL #	COUNTY	ACRES	FIELD ID	SOIL
10/20/2010	S10-10276		Philadelphia		Wsqd	

SOIL NUTRIENT LEVELS



RECOMMENDATIONS FOR: ***Landscape, Maint, pH 7.0***

Limestone, Calcium And Magnesium Recommendations

Apply the following quantities of limestone, epsom salts and/or gypsum to the soil to correct soil pH, calcium and magnesium levels.

Calcitic Limestone: 7 lb/100 square feet
(0-3 % Mg)

Magnesium: NONE

Gypsum ($CaSO_4$): NONE

Nitrogen, Phosphate And Potash Recommendations

Apply 1.5 lbs per 100 square feet of 10-10-10.

MESSAGES

The above lime and fertilizer recommendations are for this soil sample and this season only. Nitrogen, phosphate and potash recommendations are for fertilizers containing specific ratios of nitrogen (N), phophate (P2O5) and potash (K2O). As an example 5-10-10 contains 5 % N, 10 % P2O5, and 10 % K2O. If fertilizers with the ratio(s) shown are not available, contact your local garden center or fertilizer supplier for the appropriate substitution.

LABORATORY RESULTS:

[1]pH	[2]P lb/A	Exchangeable Cations (meq/100g)					% Saturation of the CEC			Optional Tests:		
		[3]Acidity	[2]K	[2]Mg	[2]Ca	[4]CEC	K	Mg	Ca	Organic Matter %	Nitrate-N ppm	Soluble salts mmhos/cm
6.1	422	3.4	0.3	1.7	5.7	11.2	3.1	15.4	51.1	2.4		

Test Methods: [1]1:1 soil:water pH, [2]Mehlich 3 (ICP), [3]Mehlich Buffer pH, [4]Summation of Cations

Home Garden-1

7555

© 2010

PENNSTATE

(814) 863-0841 Fax (814) 863-4540
Agricultural Analytical Services Laboratory
The Pennsylvania State University
University Park PA 16802
www.aasl.psu.edu

SOIL TEST REPORT FOR:	ADDITIONAL COPY TO:
JASON LUBAR MORRIS ARBORETUM 100 NORTH WESTERN AVE PHILADELPHIA PA 19118	Sample "E"

DATE	LAB #	SERIAL #	COUNTY	ACRES	FIELD ID	SOIL
10/20/2010	S10-10278		Philadelphia		Wsqe	

SOIL NUTRIENT LEVELS		Below Optimum	Optimum	Above Optimum
Soil pH				
Phosphate	(P_2O_5)			
Potash	(K_2O)			
Magnesium	(MgO)			
Calcium	(CaO)			

RECOMMENDATIONS FOR: ***Landscape, Maint, pH 7.0***

Limestone, Calcium And Magnesium Recommendations

Apply the following quantities of limestone, epsom salts and/or gypsum to the soil to correct soil pH, calcium and magnesium levels.

Calcitic Limestone: 9 lb/100 square feet
(0-3 % Mg)

Magnesium: NONE

Gypsum ($CaSO_4$): NONE

Nitrogen, Phosphate And Potash Recommendations

Apply 1.5 lbs per 100 square feet of 10-10-10.

MESSAGES

The above lime and fertilizer recommendations are for this soil sample and this season only. Nitrogen, phosphate and potash recommendations are for fertilizers containing specific ratios of nitrogen (N), phophate (P2O5) and potash (K2O). As an example 5-10-10 contains 5 % N, 10 % P2O5, and 10 % K2O. If fertilizers with the ratio(s) shown are not available, contact your local garden center or fertilizer supplier for the appropriate substitution.

LABORATORY RESULTS:

[1]pH	[2]P lb/A	Exchangeable Cations (meq/100g)					% Saturation of the CEC			Optional Tests:		
		[3]Acidity	[2]K	[2]Mg	[2]Ca	[4]CEC	K	Mg	Ca	Organic Matter %	Nitrate-N ppm	Soluble salts mmhos/cm
6.0	530	3.9	0.3	1.4	4.7	10.4	3.2	13.7	45.5	2.4		

Test Methods: [1]1:1 soil:water pH, [2]Mehlich 3 (ICP), [3]Mehlich Buffer pH, [4]Summation of Cations

Home Garden-1

7557

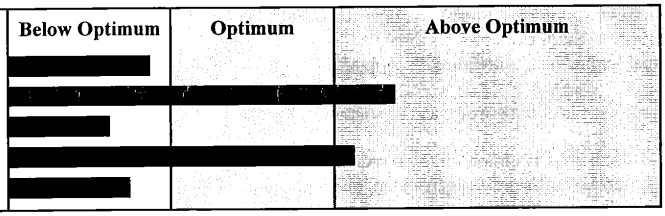
© 2010

PENNSTATE
(814) 863-0841 Fax (814) 863-4540
Agricultural Analytical Services Laboratory
The Pennsylvania State University
University Park PA 16802
www.aasl.psu.edu

SOIL TEST REPORT FOR:	ADDITIONAL COPY TO:
JASON LUBAR MORRIS ARBORETUM 100 NORTH WESTERN AVE PHILADELPHIA PA 19118	Sample "F"

DATE	LAB #	SERIAL #	COUNTY	ACRES	FIELD ID	SOIL
10/20/2010	S10-10273		Philadelphia		Wsqf	

SOIL NUTRIENT LEVELS



RECOMMENDATIONS FOR: *Landscape, Maint, pH 7.0*

Limestone, Calcium And Magnesium Recommendations

Apply the following quantities of limestone, epsom salts and/or gypsum to the soil to correct soil pH, calcium and magnesium levels.

Calcitic Limestone: 7 lb/100 square feet
(0-3 % Mg)

Magnesium: NONE

Gypsum ($CaSO_4$): NONE

Nitrogen, Phosphate And Potash Recommendations

Apply 1.5 lbs per 100 square feet of 10-10-10.

MESSAGES

The above lime and fertilizer recommendations are for this soil sample and this season only. Nitrogen, phosphate and potash recommendations are for fertilizers containing specific ratios of nitrogen (N), phophate (P2O5) and potash (K2O). As an example 5-10-10 contains 5 % N, 10 % P2O5, and 10 % K2O. If fertilizers with the ratio(s) shown are not available, contact your local garden center or fertilizer supplier for the appropriate substitution.

LABORATORY RESULTS:

[1]pH	[2]P lb/A	Exchangeable Cations (meq/100g)					% Saturation of the CEC			Optional Tests:		
		[3]Acidity	[2]K	[2]Mg	[2]Ca	[4]CEC	K	Mg	Ca	Organic Matter %	Nitrate-N ppm	Soluble salts mmhos/cm
6.3	578	2.8	0.3	1.7	5.9	10.8	3.2	15.7	55.1	2.6		

Test Methods: [1]1:1 soil:water pH, [2]Mehlich 3 (ICP), [3]Mehlich Buffer pH, [4]Summation of Cations

Home Garden-1

7552

© 2010

PENNSTATE

(814) 863-0841 Fax (814) 863-4540
Agricultural Analytical Services Laboratory
The Pennsylvania State University
University Park PA 16802
www.aasl.psu.edu

SOIL TEST REPORT FOR:	ADDITIONAL COPY TO:
JASON LUBAR MORRIS ARBORETUM 100 NORTH WESTERN AVE PHILADELPHIA PA 19118	Sample "G"

DATE	LAB #	SERIAL #	COUNTY	ACRES	FIELD ID	SOIL
10/20/2010	S10-10275		Philadelphia		Wsqg	

SOIL NUTRIENT LEVELS		Below Optimum	Optimum	Above Optimum
Soil pH				
Phosphate	(P_2O_5)			
Potash	(K_2O)			
Magnesium	(MgO)			
Calcium	(CaO)			

RECOMMENDATIONS FOR: ***Landscape, Maint, pH 7.0***

Limestone, Calcium And Magnesium Recommendations

Apply the following quantities of limestone, epsom salts and/or gypsum to the soil to correct soil pH, calcium and magnesium levels.

Calcitic Limestone: 7 lb/100 square feet
(0-3 % Mg)

Magnesium: NONE

Gypsum ($CaSO_4$): NONE

Nitrogen, Phosphate And Potash Recommendations

Apply 1.5 lbs per 100 square feet of 10-10-10.

MESSAGES

The above lime and fertilizer recommendations are for this soil sample and this season only. Nitrogen, phosphate and potash recommendations are for fertilizers containing specific ratios of nitrogen (N), phophate (P2O5) and potash (K2O). As an example 5-10-10 contains 5 % N, 10 % P2O5, and 10 % K2O. If fertilizers with the ratio(s) shown are not available, contact your local garden center or fertilizer supplier for the appropriate substitution.

LABORATORY RESULTS:										Optional Tests:		
[1]pH	[2]P lb/A	Exchangeable Cations (meq/100g)					% Saturation of the CEC			Organic Matter %	Nitrate-N ppm	Soluble salts mmhos/cm
		[3]Acidity	[2]K	[2]Mg	[2]Ca	[4]CEC	K	Mg	Ca			
6.2	522	3.4	0.3	1.7	6.4	11.8	2.9	14.2	54.0	2.9		

Test Methods: [1]1:1 soil:water pH, [2]Mehlich 3 (ICP), [3]Mehlich Buffer pH, [4]Summation of Cations

Home Garden-1

7554

© 2010

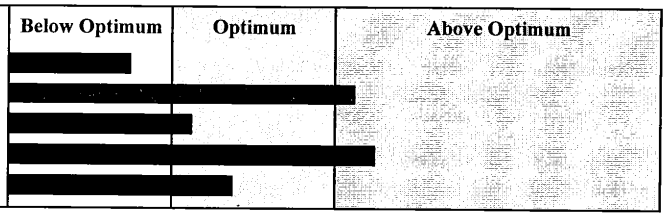
PENNSTATE

(814) 863-0841 Fax (814) 863-4540
Agricultural Analytical Services Laboratory
The Pennsylvania State University
University Park PA 16802
www.aasl.psu.edu

SOIL TEST REPORT FOR:	ADDITIONAL COPY TO:
JASON LUBAR MORRIS ARBORETUM 100 NORTH WESTERN AVE PHILADELPHIA PA 19118	Sample "H" – Topsoil only

DATE	LAB #	SERIAL #	COUNTY	ACRES	FIELD ID	SOIL
10/20/2010	S10-10274		Philadelphia		Wsqh	

SOIL NUTRIENT LEVELS



RECOMMENDATIONS FOR: ***Landscape, Maint, pH 7.0***

Limestone, Calcium And Magnesium Recommendations

Apply the following quantities of limestone, epsom salts and/or gypsum to the soil to correct soil pH, calcium and magnesium levels.

Calcitic Limestone: (0-3 % Mg) 7 lb/100 square feet

Magnesium: NONE

Gypsum ($CaSO_4$): NONE

Nitrogen, Phosphate And Potash Recommendations

Apply 1.5 lbs per 100 square feet of 10-10-10.

MESSAGES

The above lime and fertilizer recommendations are for this soil sample and this season only. Nitrogen, phosphate and potash recommendations are for fertilizers containing specific ratios of nitrogen (N), phophate (P2O5) and potash (K2O). As an example 5-10-10 contains 5 % N, 10 % P2O5, and 10 % K2O. If fertilizers with the ratio(s) shown are not available, contact your local garden center or fertilizer supplier for the appropriate substitution.

LABORATORY RESULTS:

[1]pH	[2]P lb/A	Exchangeable Cations (meq/100g)					% Saturation of the CEC			Optional Tests:		
		[3]Acidity	[2]K	[2]Mg	[2]Ca	[4]CEC	K	Mg	Ca	Organic Matter %	Nitrate-N ppm	Soluble salts mmhos/cm
6.1	516	3.4	0.6	2.2	7.9	14.1	4.2	15.7	56.1	5.4		

Test Methods: [1]1:1 soil:water pH, [2]Mehlich 3 (ICP), [3]Mehlich Buffer pH, [4]Summation of Cations

Home Garden-1

7553

© 2010

This page appears on the back of the soil test reports in this section and should be used to guide the soil test's recommendations.

COMMENTS

1. To be most effective, all recommended limestone and/or fertilizer should be incorporated 6 to 8 inches into the soil prior to planting. If plants or crop is established, apply recommended materials to the surface and water area well.

   Use a high quality agricultural ground limestone product to meet the limestone recommendation on this report. Manufacturers of agricultural ground limestone products provide a number called the calcium carbonate equivalent, or CCE, on the label. CCEs with high numerical values (close to 100 or above) indicate a pure lime source (greater ability to neutralize soil acidity). The amount of lime recommended on this report is based on an agricultural ground limestone with a CCE of 100. If your lime source is close to or equal to 100, you don't need to adjust the recommended amount. In the event that you use a lime source with a CCE well below 100, use the following formula to adjust the required amount.

   $$\text{Actual liming material required} = \frac{\text{(Soil test recommendation in lbs of lime/1000 square feet)}}{\text{CCE of liming material}} \times 100$$

   Example Only:
   Soil Test Recommendation: 5 lbs limestone /100 square feet
   CCE on label: 70 percent
   Actual liming material required = $\frac{\text{(5 lb of limestone/100 square feet)}}{70} \times 100$
   = 7 lbs liming material/100 square feet

2. If 11 to 20 pounds of limestone are recommended, divide the amount by two and apply in two applications six months apart. If 21 or more pounds are recommended, divide the amount by three and make three applications at six month intervals.

3. If 3 or more pounds of MgSO4 (Epsom salts) are recommended, divide the amount by two and make separate applications at four month intervals. If an alternative magnesium source is used, apply an amount equal to the equivalent of 10.5% Mg in MgSO4; ONLY ONE APPLICATION should be needed.

4. Lime and fertilizer recommended in pounds of material per each 100 square feet of area to be treated. Use the following conversions to convert from pounds per 100 square feet to other units or area sizes:
   Pounds per 100 sq. ft. x 10 = pounds per 1000 sq. ft.
   Pounds per 100 sq. ft. x 435 = pounds per acre:

5. Amount of sulfur needed to lower soil pH to optimum level.
   (See Laboratory Results on front of report for soil pH)

From Current Soil pH	To Optimum Soil pH	Sulfur (lb/100 sq ft)	From Current Soil pH	To Optimum Soil pH	Sulfur (lb/100 sq ft)
8.0	7.5	0.50	7.0	6.5	0.75
	7.0	1.00		6.0	1.25
	6.5	2.00		5.5	2.50
	6.0	3.00			
	5.5	4.00			
7.5	7.0	0.75	6.5	6.0	1.00
	6.5	1.25		5.5	1.75
	6.0	2.50			
	5.5	3.50	6.0	5.5	1.50

   Apply sulfur at the above rates for a loam soil. On heavier soil (silt loams) use one third more than the Amount shown. On lighter soils (sandy loams) use one-half of the amounts shown.
   If aluminum or ferrous sulfate is used to lower pH, multiply the above amounts by 2.5. Follow the same suggestions as above for soil types. If 4 or more pounds are needed, divide the amount in half and make two applications six months apart.

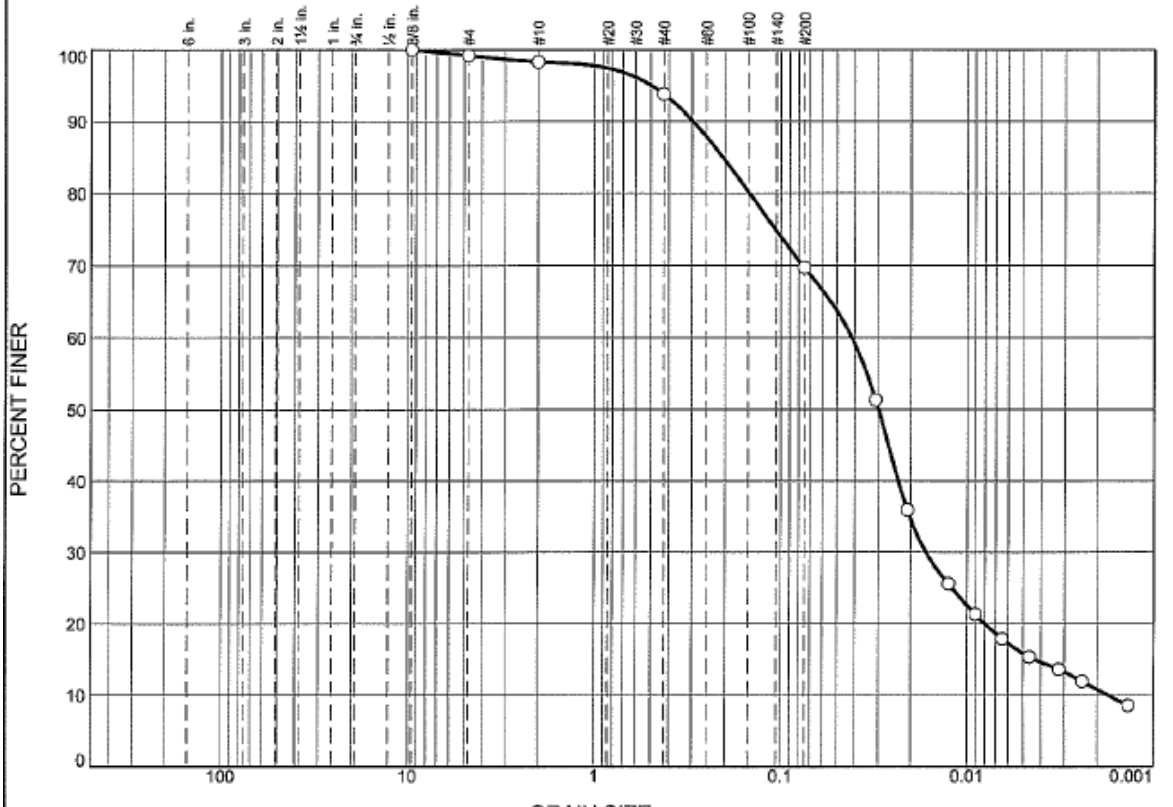
6. There is no reliable test for evaluating the amount of nitrogen (N) in soils that is available to crops over the growing season. The N recommended is based on the actual N that needs to be supplied annually to ensure optimum plant growth.

Prepared by: **Jason Lubar – *Associate Director of Urban Forestry***
Morris Arboretum of the University of Pennsylvania
9414 Meadowbrook Avenue,
Philadelphia, PA 19118
215-247-5777 x189

© 2010

APPENDIX E: PARTICLE SIZE ANALYSIS – DUFFIELD ASSOCIATES

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.8	0.9	4.5	24.1	53.8	15.9

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○	-	-	0.2054	0.0416	0.0299	0.0166	0.0043	0.0017	3.80	23.89

Material Description	USCS	AASHTO
○ Dark gray SILT, some fine to medium sand, little clay.	ML	-

Project No. 8788.GA **Client:** Morris Arboretum's Urban Forestry Consultants

Project: Geotechnical Soil Laboratory Testing

○ **Sample Number:** Washington Square-D

Remarks:

○ Moisture Content as Recived: 3.6 %

DUFFIELD ASSOCIATES
5400 LIMESTONE ROAD
WILMINGTON, DELAWARE 19808-1232
TEL. (302) 239-6634 FAX (302) 239-8485
E-MAIL: DUFFIELD@DUFFNET.COM

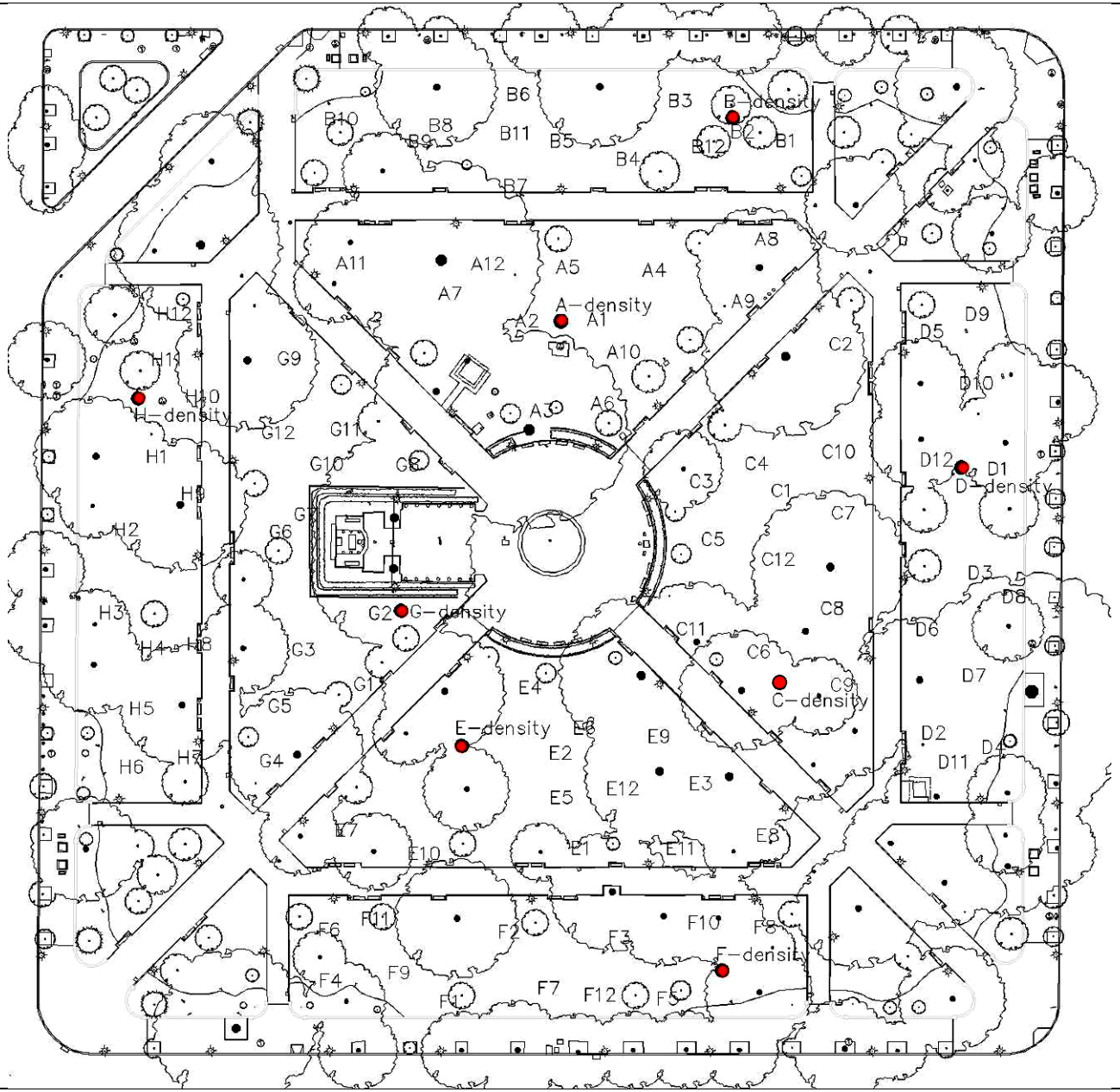
Chkd: BJP 10/14

APPENDIX F: BULK DENSITY

Sample	*Weight (gr) of Soil+Tube*	*Tube weight (gr)*	*Soil wet weight (gr)*	*Tube inside dia. (cm)*	*Radius*	*Soil Height (cm)*	*Volume (cc)*	*Soil Dry Wt. (gr)*	*Bulk Density g/cc*	*soil class**	*limiting bulk density*
A	434.9	51.4	383.5	4.8	2.4	12.35	223.5	303.9	1.36	sandy loam	1.65
B	404.7	51.5	353.2	4.8	2.4	11.8	213.5	308.3	1.44	sandy loam	1.65
C	446.4	51.4	395	4.8	2.4	12.8	231.6	315.2	1.36	loam	1.55
D	500.9	50.9	450	4.8	2.4	13.45	243.4	370.8	1.52	loam	1.55
E	496.7	50.6	446.1	4.8	2.4	13.35	241.6	366.2	1.52	loam	1.55
F	421.1	47.8	373.3	4.8	2.4	13.6	246.1	300.3	1.22	loam	1.55
G	366.7	51	315.7	4.7	2.35	12.4	215.1	286.3	1.33	loam	1.55
H	475.6	51.4	424.2	4.75	2.375	12.4	219.7	351.5	1.60	sandy loam	1.65

*From Penn State Soil Lab results

APPENDIX G: SOIL SAMPLE SITE MAP



© 2010

APPENDIX G

ANALYSIS OF HISTORIC PLANT LISTS

1. Consolidated Historic Tree List for Washington Square

Note that the trees listed below correspond with those that were noted primarily as added during each historic period, not necessarily those trees that were existing at a particular time. Tree species that currently exist (in 2010) in the square are noted in **bold.** Scientific names reflect current nomenclature. First recorded date of cultivation/introduction are from Michael A. Dirr, *Manual of Woody Landscape Plants,* ninth edition (2009). Before tree species are selected for planting, they should be evaluated to determine if they are hardy or invasive in urban conditions.

Scientific Name	Common Name	W.S. date	Notes
Trees recorded prior to 1816			
Populus nigra 'Italica'	Lombardy Poplar	Late 18th century	Cultivated in the Mediterranean region, 17th Century
Trees planted during the Bridport period (1816-1881)			
Abies balsamea	Balsam Fir	1816, 1842	Native, cultivated 1696
Acer negundo	Boxelder	1840, 1842	Native, cultivated 1688
Acer nigrum	Black Maple	1816, 1817, 1842	Native, introduced 1812
Acer pennsylvanicum	Striped Maple	1816	Native, introduced 1755
Acer platanoides	**Norway Maple**	1842	Europe, introduced 1756
Acer pseudoplatanus	**Sycamore Maple**	1816	European origin, cultivated for centuries
Acer rubrum	**Red Maple**	1816	Native, cultivated in UK 1656; introduced 1860
Acer saccharum	**Sugar Maple**	1816	Native, introduced 1753
Acer saccharinum	Silver Maple	1816	Native, introduced 1725
Aesculus flava	Yellow Buckeye	1816-1824	Native, introduced 1764; same species as A. octandra
Aesculus hippocastanum	**Horse Chestnut**	1816-1824, 1840, 1842	Greece + Albania, introduced 1576
Aesculus pavia	Red Buckeye	1816-1817	Native, introduced 1711
Asimina triloba	Common Pawpaw	1816	Native, introduced 1736; fruits
Betula lenta	Black or Sweet Birch	1816	Native, introduced 1759
Betula nigra	River Birch	1816, 1817	Native; cultivated 1736
Betula populifolia	Gray Birch	1816, 1817	Native, introduced 1780
Broussonetia papyrifera	Paper Mulberry	1816-1817, 1842	China + Japan, cultivated 1750
Carpinus caroliniana	American Hornbeam	1816	Native, introduced 1812
Carya glabra	Pignut Hickory	1842	Native, introduced 1750

Scientific Name	Common Name	W.S. date	Notes
Carya illinoinensis	Pecan	1816-1817, 1820	Native, introduced 1760
Castanea dentata	**American Chestnut**	1842	Native; cultivated 1800
Castanea sativa	Spanish Chestnut	1816-1817	Southern Europe, cultivated for centuries
Catalpa bignoniodes	Southern Catalpa	1816, 1842	Native, introduced 1726
Celtis cerasifera[1]	Xiao Guo Po	1816	Chinese
Celtis occidentalis	**Common Hackberry**	1816-1817, 1842	Native, cultivated 1636
Cercis canadensis	**Eastern Redbud**	1816-1817, 1842	Native, cultivated 1641
Chionanthus virginicus	White Fringetree	1816-1817	Native, introduced 1736
Cornus florida	**Flowering Dogwood**	1816-1817	Native, cultivated 1731
Cupressus sp.	Cypress	1816-1824	Exact species not known
Diospyros virginiana	Common Persimmon	1816	Native, introduced 1629
Fagus grandifolia	American Beech	1816, 1842	Native, introduced 1800
Franklinia alatamaha	**Franklinia**	1816-1817	Native, discovered by Bartram in 1770
Fraxinus americana	**White Ash**	1816-1824	Native, introduced 1724
Fraxinus excelsior	European Ash	1842	Europe + Asia Minor, cultivated for centuries
Fraxinus pennsylvanica	Green Ash	1842	Native, introduced 1824
Fraxinus nigra	Black Ash	1816-1817, 1842	Native, introduced 1800
Gleditsia triacanthos	**Honeylocust**	1816-1824, 1842	Native, introduced 1700
Gymnocladus dioicus	**Kentucky Coffeetree**	1816-1824, 1842	Native, introduced before 1748
Ilex opaca	American Holly	1842	Native, introduced 1744
Juglans cinera	Butternut, White Walnut	1816-1824	Native; cultivated 1633
Juniperus virginiana	Eastern Redcedar	1816-1824, 1842	Native, introduced before 1664
Koelreuteria sp.	Panicled Goldenraintree	1816-1817	Could be *K. paniculata*
Laburnum sp.	Goldenchain Tree	1816-1817	Could be *L. x waterei*
Larix decidua 'Pendula'	Weeping European Larch	1842	Europe, introduced during colonial period
Larix laricina	American Larch	1816	Native, introduced 1737
Liquidambar styraciflua	**American Sweetgum**	1816-1824	Native, introduced 1681
Liriodendron tulipifera	**Tuliptree**	1816-1817, 1842	Native, cultivated 1663
Magnolia acuminata	Cucumbertree Magnolia	1816-1817	Native, introduced 1736
Magnolia grandiflora	Southern Magnolia	1816	Native; cultivated 1734
Magnolia macrophylla	Bigleaf Magnolia	1842	Native; cultivated 1800
Magnolia x soulangeana	**Saucer Magnolia**	1842	First hybrid flowered 1826 in France
Magnolia tripetala	Umbrella Magnolia	1816-1824	Native, introduced 1752
Magnolia virginiana	**Sweetbay Magnolia**	1816	Native, introduced 1688
Malus coronaria	Sweet Crabapple	1816	Origin, date of cultivation not listed
Nyssa sylvatica	**Black Gum**	1816, 1842	Native, introduced before 1750

Scientific Name	Common Name	W.S. date	Notes
Ostrya virginiana	American Hophornbeam	1842	Native, introduced 1690
Picea abies	Norway Spruce	1842	Europe, introduced during Colonial period
Pinus palustris	Longleaf Pine	1816	Native, introduced 1727
Pinus rigida	Pitch Pine	1816-1817	Native, introduced before 1759
Pinus serotina	Pond Pine	1816	Native, introduced 1713
Pinus strobus	White Pine	1816, 1817, 1842	Native, introduced about 1705
Pinus sylvestris	Scotch Pine	1816-1817, 1842	Europe + Asia, long cultivated
Platanus occidentalis	Sycamore	1816-1817, 1820	Native, introduced 1640
Platanus orientalis	Oriental Plane Tree	1816-1824	Date of introduction not known
Populus balsamifera	Balsam Poplar	1816-1824	Listed as endangered in Pennsylvania
Populus nigra	Black Poplar	1816-1824	Europe, North Africa
Populus tremuloides	Aspen	1816-1817	Native, introduced 1812
Prunus sp.	Flowering Cherry	1816	Species is not known for this period
Prunus sp.	Double Flowering Cherry	1816-1817	Species is not known for this period
Prunus mahaleb	Mahaleb Cherry	1842	Not listed in Dirr
Prunus pensylvanica	Pin Cherry	1842	Native, introduced 1773
Prunus virginiana	Chokecherry	1842	Native, introduced 1724
Quercus alba	White Oak	1816-1817, 1842	Native, introduced 1724
Quercus bicolor	**Swamp White Oak**	1842	Native, introduced 1800
Quercus falcata	Spanish Oak	1816-1817	Native, introduced before 1763
Quercus macrocarpa	Bur Oak	1842	Native, introduced 1811
Quercus marilandica	Black Jack Oak	1816-1817	Native, introduced before 1739
Quercus montana	Chestnut Oak	1816-1817, 1842	Native, cultivated 1688
Quercus muehlenbergii	Yellow Oak	1816-1817	Native, introduced 1822
Quercus palustris	Pin Oak	1842	Native, introduced before 1770
Quercus phellos	Willow Oak	1816-1824, 1840, 1842	Native, introduced 1723
Quercus robur	English Oak	1816-1824, 1842	Europe, long cultivated
Quercus rubra	**Red Oak**	1842	Native, introduced 1800
Quercus suber	Cork Bark Oak	1816-1817	Not hardy
Quercus velutina	**Black Oak**	1816-1817	Native, introduced 1800
Robinia pseudoacadia	Black Locust	1816-1817, 1842	Native, introduced 1635
Salix babylonica	Weeping Willow	1816-1817, 1840, 1842	China, introduced 1730
Sassafras albidum	Sassafras	1816-1817, 1842	Native; cultivated 1630
Sorbus sp.	Mountain Ash	1816-1817	Species not known for this period; American Mountain Ash first cultivated 1811
Taxodium distichum	**Bald Cypress**	1816-1817, 1842	Native, introduced 1640
Thuja occidentalis	American Arborvitae	1816	Native, introduced about 1536
Tilia americana	**Common Linden**	1816, 1817, 1842	Native, introduced 1752

Scientific Name	Common Name	W.S. date	Notes
Tilia tomentosa	**Silver Linden**	1816	Europe + western Asia, introduced 1767
Tsuga canadensis	Hemlock	1816, 1817, 1820	Native, introduced 1736
Ulmus americana	**American Elm**	1816	Native, introduced 1752
Ulmus rubra	Slippery Elm	1816	Native, cultivated 1830
Ulmus procera	English Elm	1816	Origin, date of introduction not listed
Trees Planted During the Dixey Period (1881-1913)			
Acer platanoides	**Norway Maple**	1913	Europe, introduced 1756
Acer saccharum	**Sugar Maple**	1913	Native, introduced 1753
Acer saccharinum	Silver Maple	1913	Native, introduced 1725
Aesculus hippocastanum	**Horse Chestnut**	1913	Greece + Albania, introduced 1576
Ailanthus altissima	Tree of Heaven	1913	China, introduced 1784
Carya sp.	Hickory	1913	Exact species unknown
Catalpa sp.	Catalpa	1913	Exact species unknown
Fraxinus sp.	Ash	1913	Exact species unknown
Gymnocladus dioicus	**Kentucky Coffee Tree**	1913	Native, introduced before 1748
Liriodendron tulipifera	**Tulip Tree**	1913	Native, cultivated 1663
Platanus x acerifolia	**London Plane Tree**	1913	Hybrid, first record in England, 1663
Platanus occidentalis	Sycamore	1913	Native, introduced 1640
Platanus orientalis	Oriental Plane Tree	1913	Europe + Asia, date of introduction not listed
Populus x canadensis	Carolina Poplar	1913	Hybrid, date of introduction not listed
Quercus sp.	Oak	1913	Exact species unknown
Quercus palustris	Pin Oak	1913	Native, introduced before 1770
Quercus robur	English Oak	1913	Europe, long cultivated
Quercus rubra	**Red Oak**	1913	Native, introduced 1800
Robinia sp.	Locust	1913	Exact species not noted
Taxodium distichum	**Bald Cypress**	1913	Native, introduced 1640
Tilia sp.	Linden	1913	Exact species not listed
Tilia americana	**American Linden**	1913	Native, introduced 1752
Tilia x europa	European Linden	1913	Hybrid, date of introduction not listed
Ulmus sp.	Elm	1913	Exact species not listed
Ulmus americana	**American Elm**	1913	Native, introduced 1752
Ulmus procera	English Elm	1913	Date of introduction not listed
Trees Planted During the Olmsted Period (1914-1952)			
Acer pseudoplatanus	**Sycamore Maple**	1921	Europe, cultivated for centuries
Aesculus hippocastanum	**Horse Chestnut**	1921	Greece + Albania, introduced 1576
Crataegus phaenopyrum	**Washington Thorn**	1937	Native, introduced 1738

Scientific Name	Common Name	W.S. date	Notes
Amelanchier canadensis	**Shadblow Serviceberry**	1937	Native
Fraxinus sp.	Ash	1921	Exact species unknown
Gingko biloba	**Gingko**	1921	Eastern China, introduced 1784
Gleditsia triacanthos	**Honeylocust**	1921	Native, introduced 1700
Gymnocladus dioicus	**Kentucky Coffee Tree**	1921	Native, introduced before 1748
Liquidambar styraciflua	**American Sweetgum**	1937	Native, introduced 1681
Liriodendron tulipifera	**Tulip Tree**	1921, 1937	Native; cultivated 1663
Magnolia tripetala	Umbrella Magnolia	1921	Native, introduced 1752
Quercus palustris	Pin Oak	1937	Native, introduced before 1770
Quercus rubra	**Red Oak**	1921	Native, introduced 1800
Tilia tomentosa	**Silver Linden**	1921	Europe + western Asia, introduced 1767
Ulmus sp.	Elm	1921	Exact species unknown
Trees Planted During Brumbaugh Period (1953-57)			
Acer sp.	Maple	1953	Exact species unknown
Acer negundo	Boxelder	1953	Native, cultivated 1688
Acer platanoides	**Norway Maple**	1953	Europe, introduced 1756
Acer saccharum	**Sugar Maple**	1953, 1954	Native, introduced 1753
Acer saccharinum	Silver Maple	1953	Introduced 1725
Aesculus glabra	Ohio Buckeye	1953	Cultivated 1809
Aesculus hippocastanum	**Horse Chestnut**	1953	Introduced 1576
Ailanthus altissima	Tree of Heaven	1953	Introduced 1784; invasive
Catalpa sp.	Catalpa	1953	Exact species unknown
Cornus florida	**Flowering Dogwood**	1954	Native, cultivated 1731
Cornus mas	**Cornelian Cherry**	1953	Cultivated since ancient times.
Crataegus sp.	Hawthorn	1953	Exact species not known.
Euonymus europaes	Spindle Tree	1954	Native, introduced 1697
Franklinia alatamaha	**Franklinia**	1954	Native; discovered by Bartram in 1770
Fraxinus sp.	Ash	1953	Exact species not known.
Ginkgo biloba	**Gingko**	1953	Introduced 1784
Gleditsia triacanthos	**Honeylocust**	1953	Introduced 1700
Gymnocladus dioicus	**Kentucky Coffee Tree**	1953	Introduced before 1748
Halesia carolina	Carolina Silverbell	1953	Introduced 1756
Liriodendron tulipifera	**Tuliptree**	1953	Native; cultivated 1633
Oxydendrum aboreum	Sourwood	1954	Native; introduced 1752
Platanus sp.	Plane Tree	1953	Exact species not known.
Quercus sp.	Oak	1953	Exact species not known.
Quercus alba	White Oak	1953	Native, introduced 1754
Quercus laevis	Turkey Oak	1953	Native; introduced 1834
Quercus macrocarpa	Bur Oak	1953	Native, introduced 1811
Quercus palustris	Pin Oak	1953	Native, introduced before 1770
Quercus rubra	**Red Oak**	1953	Native, introduced 1800

Scientific Name	Common Name	W.S. date	Notes
Quercus velutina	**Black Oak**	1953	Native, introduced 1800
Robinia sp.	Locust	1953	Exact species not known.
Taxodium distichum	**Bald Cypress**	1953	Native, introduced 1640
Tilia sp.	Linden	1953	Exact species not known.
Tilia x europa	European Linden	1954	Hybrid, date not listed
Tilia platyphyllos	Large Leaf Linden	1953	Planted in Europe for centuries
Ulmus sp.	Elm	1953	Exact species not known.
Ulmus parvifolia	Chinese Elm	1953	China, introduced 1794

2. Analysis of Plants Listed in Historic Documents

This table contains plants listed on drawings and in all documentary sources reviewed for this CLR. Where plant nomenclature has changed over time, current scientific and common names are indicated on the table below, with the original basionym described in endnotes. Some of the scientific names are derived from common names; a few plants could not be definitively identified, so these are noted separately. The plant lists used in this analysis include both complete inventories of Washington Square planting as well as lists that indicate only plant material added at a specific date. To differentiate between the two, plant lists with complete inventories have been underlined.

		PERIOD OF SIGNIFICANCE (1682-1957)																									
Associated Historical Period		**Colonial Period**	**Capital City**	**Bridport Design**								**Dixey Plan**		**Olmsted Brothers Plan**		**Brumbaugh Plan**				**Transition from Fairmount Park to the National Park Service**							
Botanical Name	**Common Name**	**mid-1700s**[2]	**1794**[3]	**1816-1824**[4]	**Circa 1817**[5]	**1816**[6]	**1817**[7]	**1816-1817**[8]	**1820**[9]	**1840**[10]	**1842**[11]	**1844**[12]	**1913**[13]	**1913**[14]	**1921**[15]	**1937**[16]	**1953**[17]	**1954**[18]	**1964**[19]	**1965-1966**[20]	**1997**[21]	**2001**[22]	**2002**	**2002**[23]	**2004**[24]	**2005-2006**[25]	**2007-2008**[26]	**2010**[27]
TREES																											
Abies balsamea[28]	Balsam Fir					X					X																
Acer sp.[29]	Maple												X				X										
Acer negundo[30]	Boxelder									X	X						X										
Acer nigrum[31]	Black Maple					X		X			X																
Acer pensylvanicum	Striped Maple			X	X	X	X	X																			
Acer platanoides[32]	Norway Maple										X		X	X			X					X				X	X
Acer pseudoplatanus	Sycamore Maple			X	X		X	X							X												
Acer rubrum[33]	Red Maple			X		X	X	X			X										X		X			X	X
Acer saccharum[34]	Sugar Maple			X	X								X				X	X			X		X			X	X
Acer saccharinum[35]	Silver Maple					X	X				X		X	X			X										
Aesculus flava[36]	Yellow Buckeye										X											X	X				
Aesculus glabra[37]	Buckeye																X										
Aesculus hippocastanum[38]	Horse Chestnut			X	X	X		X		X	X		X	X	X		X									X	X
Aesculus pavia[39]	Red Buck Eye					X		X																			
Ailanthus altissima[40]	Tree of Heaven										X		X	X			X										
Amelanchier canadensis	Shadblow Serviceberry															X			X		X	X				X	X
Asimina triloba	Pawpaw					X																					
Betula lenta	Black Birch					X															X						
Betula populifolia[41]	White Birch or River Birch				X	X																					
Betula nigra[42]	Red Birch				X	X																					

Associated Historical Period		PERIOD OF SIGNIFICANCE (1682-1957)																												
		Colonial Period	Capital City	Bridport Design									Dixey Plan		Olmsted Brothers Plan		Brumbaugh Plan				Transition from Fairmount Park to the National Park Service								
Botanical Name	**Common Name**	**mid-1700s**[2]	**1794**[3]	**1816-1824**[4]	**Circa 1817**[5]	**1816**[6]	**1817**[7]	**1816-1817**[8]	**1820**[9]	**1840**[10]	**1842**[11]	**1844**[12]	**1913**[13]	**1913**[14]	**1921**[15]	**1937**[16]	**1953**[17]	**1954**[18]	**1964**[19]	**1965-1966**[20]	**1997**[21]	**2001**[22]	**2002**	**2002**[23]	**2004**[24]	**2005-2006**[25]	**2007-2008**[26]	**2010**[27]
Broussonetia papyrifera[43]	Paper Mulberry							X			X																		
Carpinus caroliniana[44]	American Hornbeam					X																							
Carya sp.[45]	Hickory				X	X		X					X	X															
Carya glabra[46]	Pignut Hickory										X																		
Carya illinoinensis[47]	Pecan, Illinois Hickory				X	X	X	X																					
Castanea dentata[48]	American Chestnut										X																		
Castanea sativa[49]	Spanish Chestnut					X		X																					
Catalpa sp.[50]	Catalpa			X	X			X					X	X			X												
Catalpa bignonioides[51]	Southern Catalpa					X					X																		
Catalpa speciosa	Northern Catalpa																					X					X	X	
Celtis occidentalis	Nettle Tree, Hackberry					X		X			X												X				X	X	
Celtis cerasifera[52]	Hackberry					X																							
Cercis canadensis[53]	Redbud							X			X										X	X	X				X	X	
Chionanthus virginicus	Fringe Tree				X	X		X																					
Cladrastis kentukea	American Yellow-wood																						X				X	X	
Cornus florida	Flowering Dogwood			X		X		X										X				X	X				X	X	
Cornus kousa	Kousa Dogwood																					X							
Cornus mas	Cornellian Cherry																X						X				X	X	
Crataegus sp.[54]	Hawthorn																X					X					X		
Crataegus phaenopyrum[55]	Washington Thorn															X			X	X									X
Cupressus sp.[56]	Cypress			X	X																								
Diospyros virginiana	Persimmon					X															X								
Euonymus europaes[57]	Spindle Tree																	X											
Fagus grandifolia[58]	American Beech					X					X																		
Franklinia alatamaha[59]	Franklinia				X	X		X										X			X								X
Fraxinus sp.[60]	Ash			X									X	X	X		X												
Fraxinus alba	White Ash				X		X	X																					

Associated Historical Period		PERIOD OF SIGNIFICANCE (1682-1957)																										
		Colonial Period	Capital City	Bridport Design								Dixey Plan		Olmsted Brothers Plan		Brumbaugh Plan				Transition from Fairmount Park to the National Park Service								
Botanical Name	**Common Name**	**mid-1700s[2]**	**1794[3]**	**1816-1824[4]**	**Circa 1817[5]**	**1816[6]**	**1817[7]**	**1816-1817[8]**	**1820[9]**	**1840[10]**	**1842[11]**	**1844[12]**	**1913[13]**	**1913[14]**	**1921[15]**	**1937[16]**	**1953[17]**	**1954[18]**	**1964[19]**	**1965-1966[20]**	**1997[21]**	**2001[22]**	**2002**	**2002[23]**	**2004[24]**	**2005-2006[25]**	**2007-2008[26]**	**2010[27]**
Fraxinus americana	White Ash			X	X		X	X														X	X				X	X
Fraxinus americana var. acuminata[61]	Form of American Ash										X																	
Fraxinus americana var. *epiptera*[62]	Variety of American Ash										X																	
Fraxinus excelsior[63]	European Ash										X																	
Fraxinus pennsylvanica 'Marshall'[64]	'Marshall' Green Ash										X																	
Fraxinus nigra[65]	Black Ash				X		X	X			X																	
Ginkgo biloba	Gingko														X		X			X	X	X	X				X	X
Gleditsia triacanthos	Honeylocust			X		X		X			X				X		X										X	X
Gleditsia triacanthos var. *inermis*	Thornless Honeylocust																			X								
Gleditsia triacanthos var. *inermis* 'Skyline'	'Skyline' Thornless Honeylocust																				X							
Gymnocladus dioicus[66]	Kentucky Coffeetree			X	X	X	X				X		X	X	X		X			X	X	X					X	X
Halesia carolina[67]	Carolina Silverbell																X				X							
Ilex cornuta	Chinese Holly																											X
Ilex opaca	American Holly										X											X						
Juglans cinerea[68]	White Walnut, Butternut			X	X	X		X																				
Juglans nigra	Black Walnut																					X					X	X
Juniperus sp.[69]	Juniper Tree			X			X																					
Juniperus virginiana[70]	Red Cedar			X							X																	
Koelreuteria sp.[71]	Pride of China				X	X		X																				
Laburnum sp.[72]	Golden Chain							X																				
Larix sp.[73]	Larch				X																							
Larix sp.[74]	Native Larch							X																				
Larix sp.[75]	Foreign Larch							X																				
Larix laricina	American Larch					X																						

Associated Historical Period		PERIOD OF SIGNIFICANCE (1682-1957)																											
		Colonial Period	Capital City	Bridport Design									Dixey Plan		Olmsted Brothers Plan		Brumbaugh Plan				Transition from Fairmount Park to the National Park Service								
Botanical Name	**Common Name**	**mid-1700s[2]**	**1794[3]**	**1816-1824[4]**	**Circa 1817[5]**	**1816[6]**	**1817[7]**	**1816-1817[8]**	**1820[9]**	**1840[10]**	**1842[11]**	**1844[12]**	**1913[13]**	**1913[14]**	**1921[15]**	**1937[16]**	**1953[17]**	**1954[18]**	**1964[19]**	**1965-1966[20]**	**1997[21]**	**2001[22]**	**2002**	**2002[23]**	**2004[24]**	**2005-2006[25]**	**2007-2008[26]**	**2010[27]**
Larix decidua 'Pendula'[76]	Weeping European Larch										X																		
Liquidambar styraciflua[77]	Sweetgum			X		X	X									X			X			X					X	X
Liriodendron tulipifera[78]	Tulip Tree, Tulip Poplar				X	X	X	X			X		X	X	X	X	X				X		X				X	X
Maclura pomifera	Osage Orange																					X							
Magnolia sp.	Magnolia Tree								X																				
Magnolia acuminata[79]	Cucumber Tree				X	X		X																					
Magnolia grandiflora[80]	Southern Magnolia					X																					X	X
Magnolia macrophylla	Bigleaf Magnolia										X																		
Magnolia tripetala[81]	Umbrella Tree			X		X									X														
Magnolia x *soulangeana*[82]	Saucer Magnolia										X																		X
Magnolia virginiana[83]	Sweetbay Magnolia					X															X		X				X	X
Malus sp.	Flowering Crabapple																					X							
Malus sp.	Apple	X																											
Malus coronaria	Crab Apple					X																							
Metasequoia glyptostroboides	Dawn Redwood																				X						X		
Nyssa sylvatica	Black Gum					X					X										X	X	X						X
Ostrya virginiana	American Hop-hornbeam										X																		
Oxydendrum arboreum	Sourwood																	X											
Phellodendron amurense	Amur Cork Tree																					X	X				X	X	
Picea sp.	Spruce							X																					
Picea abies[84]	Norway Spruce										X											X							
Pinus sp.	Pine			X			X																						
Pinus sp.	Silver Pine							X																					
Pinus sp.	Yellow Pine				X																								
Pinus palustris	Longleafed Pine					X																							

Associated Historical Period		PERIOD OF SIGNIFICANCE (1682-1957)																											
		Colonial Period	Capital City	Bridport Design								Dixey Plan		Olmsted Brothers Plan		Brumbaugh Plan				Transition from Fairmount Park to the National Park Service									
Botanical Name	**Common Name**	mid-1700s[2]	1794[3]	1816-1824[4]	Circa 1817[5]	1816[6]	1817[7]	1816-1817[8]	1820[9]	1840[10]	1842[11]	1844[12]	1913[13]	1913[14]	1921[15]	1937[16]	1953[17]	1954[18]	1964[19]	1965-1966[20]	1997[21]	2001[22]	2002	2002[23]	2004[24]	2005-2006[25]	2007-2008[26]	2010[27]
Pinus rigida[85]	Pitch Pine					X		X																					
Pinus serotina[86]	Pond Pine					X																							
Pinus strobus[87]	White Pine				X	X	X				X																		
Pinus sylvestris[88]	Scots Pine				X	X		X			X																		
Platanus sp.[89]	Plane												X				X												
Platanus sp.[90]	Eastern Plane Tree					X																							
Platanus sp.[91]	European Sycamore							X																					
Platanus x *acerifolia*	London Planetree													X								X							
Platanus occidentalis[92]	Sycamore American Planetree,				X	X	X	X			X			X								X							
Platanus occidentalis 'Bloodgood'	'Bloodgood' American Planetree																				X								
Platanus orientalis[93]	Oriental Plane Tree			X									X	X									X				X	X	
Populus sp.[94]	Poplar												X																
Populus x *canadensis*	Carolina Poplar													X															
Populus balsamifera[95]	Balsam of Gilead			X				X	X																				
Populus nigra[96]	Black Poplar			X		X																							
Populus nigra 'Italica'[97]	Lombardy Poplar		X																										
Populus tremuloides[98]	Aspen				X	X		X																					
Prunus sp.[99]	Flowering Cherry					X																					X	X	
Prunus sp.[100]	Double Flowering Cherry							X																					
Prunus sp.[101]	Native Wild Cherry							X																					
Prunus incamp 'Okame'	Okame Cherry																												X
Prunus mahaleb[102]	Mahaleb Cherry										X																		
Prunus pensylvanica[103]	Pin Cherry										X																		
Prunus virginiana	Chokecherry										X																		
Prunus serrulata 'Kwanzan'	Kwanzan Cherry																												X

Associated Historical Period		PERIOD OF SIGNIFICANCE (1682-1957)																											
		Colonial Period	Capital City	Bridport Design									Dixey Plan		Olmsted Brothers Plan		Brumbaugh Plan				Transition from Fairmount Park to the National Park Service							
Botanical Name	**Common Name**	**mid-1700s[2]**	**1794[3]**	**1816-1824[4]**	**Circa 1817[5]**	**1816[6]**	**1817[7]**	**1816-1817[8]**	**1820[9]**	**1840[10]**	**1842[11]**	**1844[12]**	**1913[13]**	**1913[14]**	**1921[15]**	**1937[16]**	**1953[17]**	**1954[18]**	**1964[19]**	**1965-1966[20]**	**1997[21]**	**2001[22]**	**2002**	**2002[23]**	**2004[24]**	**2005-2006[25]**	**2007-2008[26]**	**2010[27]**
Prunus x *yedoensis*	Yoshino Cherry																						X				X	X
Quercus sp.[104]	Oak				X					X			X				X											X
Quercus alba[105]	White Oak					X	X	X			X						X					X						
Quercus acutissima	Sawtooth Oak																					X	X				X	X
Quercus bicolor	Swamp White Oak										X												X				X	X
Quercus cerris	European Turkey Oak																											X
Quercus coccinea	Scarlet Oak																											
Quercus falcata[106]	Spanish Oak					X		X																				
Quercus imbricaria	Shingle Oak																						X				X	X
Quercus laevis[107]	Turkey Oak																X											
Quercus macrocarpa[108]	Bur Oak, Mossycup Oak										X						X					X					X	X
Quercus marilandica[109]	Black Jack Oak					X		X																				
Quercus montana[110]	Chestnut Oak					X		X			X																X	X
Quercus muehlenbergii[111]	Yellow Oak							X																				
Quercus palustris[112]	Pin Oak										X		X	X		X	X		X									
Quercus phellos	Willow Oak			X		X		X		X	X										X	X						
Quercus robur[113]	English Oak			X		X		X			X		X	X														
Quercus rubra[114]	Red Oak, Northern Red Oak										X			X	X		X				X	X					X	X
Quercus suber[115]	Cork Bark Oak					X	X	X																				
Quercus velutina[116]	Black Oak					X		X									X				X	X					X	X
Robinia sp.[117]	Locust				X			X					X	X			X											
Robinia pseudoacacia[118]	Black Locust				X	X		X			X											X					X	X
Salix babylonica	Weeping Willow							X			X	X																
Sassafras albidum[119]	Sassafras						X	X			X																	
Sorbus sp.[120]	Mountain Ash				X	X		X																				
Styphnolobium japonicum[121]	Japanese Pagoda Tree																			X							X	X
Syringa reticulata	Japanese Tree Lilac																					X						X
Taxodium distichum[122]	Bald Cypress					X	X	X			X			X			X				X		X				X	X

Associated Historical Period		PERIOD OF SIGNIFICANCE (1682-1957)																										
		Colonial Period	Capital City	Bridport Design									Dixey Plan		Olmsted Brothers Plan	Brumbaugh Plan				Transition from Fairmount Park to the National Park Service								
Botanical Name	**Common Name**	**mid-1700s[2]**	**1794[3]**	**1816-1824[4]**	**Circa 1817[5]**	**1816[6]**	**1817[7]**	**1816-1817[8]**	**1820[9]**	**1840[10]**	**1842[11]**	**1844[12]**	**1913[13]**	**1913[14]**	**1921[15]**	**1937[16]**	**1953[17]**	**1954[18]**	**1964[19]**	**1965-1966[20]**	**1997[21]**	**2001[22]**	**2002**	**2002[23]**	**2004[24]**	**2005-2006[25]**	**2007-2008[26]**	**2010[27]**
Thuja sp.[123]	China Arbor Vitae			X																								
Thuja occidentalis	American Arborvitae, White Cedar					X																						
Tilia sp.[124]	Linden				X					X			X				X											
Tilia sp.	Foreign Linden							X																				
Tilia sp.	Native Linden							X																				
Tilia americana[125]	American Linden					X	X				X		X	X							X	X	X				X	X
Tilia cordata	Littleleaf Linden																											X
Tilia x *europaea*	European Linden													X				X		X								
Tilia platyphyllos[126]	Large Leaf Linden																X											
Tilia tomentosa	Silver Linden[127]					X									X													X
Tsuga canadensis[128]	Canadian Hemlock					X	X		X																		X	
Ulmus sp.[129]	Elm												X		X		X											
Ulmus americana	American Elm					X								X								X	X				X	
Ulmus americana cv.[130]	American Elm cultivar																											X
Ulmus americana var. *aspera*[131]	Slippery Elm					X																						
Ulmus americana 'Heritage'	'Heritage' American Elm																				X							
Ulmus parvifolia[132]	Chinese Elm																X						X				X	
Ulmus procera[133]	English Elm					X							X															
TREES FOR WHICH EXACT IDENTIFICATION COULD NOT BE DETERMINED																												
Cupressus thyoides[134]	White Cedar					X																						
	Cedar[135]							X																				
	Cotton Tree or George's[136]							X																				
	Cypress[137]												X															
	Deciduous Cypress[138]			X																								
	Gum[139]				X			X									X											

Associated Historical Period		PERIOD OF SIGNIFICANCE (1682-1957)																										
		Colonial Period	Capital City	Bridport Design									Dixey Plan		Olmsted Brothers Plan		Brumbaugh Plan			Transition from Fairmount Park to the National Park Service								
Botanical Name	**Common Name**	**mid-1700s[2]**	**1794[3]**	**1816-1824[4]**	**Circa 1817[5]**	**1816[6]**	**1817[7]**	**1816-1817[8]**	**1820[9]**	**1840[10]**	**1842[11]**	**1844[12]**	**1913[13]**	**1913[14]**	**1921[15]**	**1937[16]**	**1953[17]**	**1954[18]**	**1964[19]**	**1965-1966[20]**	**1997[21]**	**2001[22]**	**2002**	**2002[23]**	**2004[24]**	**2005-2006[25]**	**2007-2008[26]**	**2010[27]**
Fagus tomentosa[140]	Red Ash					X																						
Prunus sp.[141]	Flowering Cherry from the Rocky Mountains (Lewis & Clark)							X																				
Quercus sp.	Bedford Oak[142]						X	X																				
Quercus sp.	Swamp or Pin Oak[143]							X																				
Sorbus canadensis[144]											X																	
SHRUBS																												
Abelia grandiflora	Glossy Abelia																	X										
Acanthopanax sieboldianus	Aralia																	X										
Amorpha fruticosa	Desert False Indigo			X																								
Aronia melanocarpa	Black Chokecherry																	X										
Azalea 'Blaauw's Pink'	Pink Hybrid Azalea																						X					
Azalea 'Delaware Valley White'	White Hybrid Azalea																						X					
Berberis thunbergii	Japanese Barberry													X														
Buxus sp.	Boxwood																									X		
Deutzia gracilis	Slender Deutzia																	X		X								
Elaeagnus angustifolia	Russian Olive																	X										
Euonymus alatus	Winged Euonymus													X														
Euonymus atropurpureus	Burning Bush			X																								
Ilex crenata[145]	Japanese Holly																	X			X	X						
Ilex crenata 'Bullata'[146]	'Bullata' Japanese Holly																	X										

Associated Historical Period		PERIOD OF SIGNIFICANCE (1682-1957)																												
		Colonial Period	Capital City	Bridport Design									Dixey Plan		Olmsted Brothers Plan		Brumbaugh Plan				Transition from Fairmount Park to the National Park Service									
Botanical Name	**Common Name**	**mid-1700s**[2]	**1794**[3]	**1816-1824**[4]	**Circa 1817**[5]	**1816**[6]	**1817**[7]	**1816-1817**[8]	**1820**[9]	**1840**[10]	**1842**[11]	**1844**[12]	**1913**[13]	**1913**[14]	**1921**[15]	**1937**[16]	**1953**[17]	**1954**[18]	**1964**[19]	**1965-1966**[20]	**1997**[21]	**2001**[22]	**2002**	**2002**[23]	**2004**[24]	**2005-2006**[25]	**2007-2008**[26]	**2010**[27]
Ilex crenata 'Compacta'	'Compacta' Japanese Holly																						X					
Ilex crenata 'Excelsa'	'Excelsa' Japanese Holly																						X					
Ilex crenata 'Green Luster'	'Green Luster' Japanese Holly																						X					
Ilex crenata 'Hetzii'	'Hetzii' Japanese Holly																						X					
Ilex glabra 'Compacta'	Compact Inkberry																						X					
Ilex glabra 'Shamrock'	'Shamrock' Inkberry																						X					
Ilex helleri	Dwarf Japanese Holly																						X					
Ligustrum sp.	Privet	X												X														
Ligustrum lucidum	Glossy Privet																	X										
Ligustrum ovalifolium	Oval-leafed Privet																	X										
Ligustrum obtusifolium var. *regelianum*[147]	Regelianum Privet																	X										
Lonicera sp.	Bush Honey-suckle													X														
Kalmia latifolia	Mountain Laurel			X																								
Prunus triloba 'Multiplex'[148]	Japanese Double Bush-cherry; Flowering Almond										X																	
Rhamnus sp.	Buckthorn													X														
Rhodotypos scandens[149]	White Kerria																	X										
Rosa sp.	Rose																									X		
Rosa rugosa	Rugosa Rose													X														
Rhododendron ''PJM"	PJM Rhodo-dendron																						X					

Associated Historical Period		PERIOD OF SIGNIFICANCE (1682-1957)																												
		Colonial Period	Capital City	Bridport Design									Dixey Plan		Olmsted Brothers Plan		Brumbaugh Plan				Transition from Fairmount Park to the National Park Service									
Botanical Name	**Common Name**	**mid-1700s[2]**	**1794[3]**	**1816-1824[4]**	**Circa 1817[5]**	**1816[6]**	**1817[7]**	**1816-1817[8]**	**1820[9]**	**1840[10]**	**1842[11]**	**1844[12]**	**1913[13]**	**1913[14]**	**1921[15]**	**1937[16]**	**1953[17]**	**1954[18]**	**1964[19]**	**1965-1966[20]**	**1997[21]**	**2001[22]**	**2002**	**2002[23]**	**2004[24]**	**2005-2006[25]**	**2007-2008[26]**	**2010[27]**
Viburnum dilatum	Linden Arrow-wood																	X											
Viburnum prunifolium[150]	Black Haw			X																									
Weigela sp.	Weigelia													X															
SHRUBS FOR WHICH EXACT IDENTIFICATION COULD NOT BE DETERMINED																													
Forsythia halesia	Forsythia													X															
HERBACEOUS PLANTS																													
Chrysanthemum sp.	Mums																								X				
Hedera helix	English Ivy																	X											
Hyacinthoides non-scripta	English bluebells																								X				
Impatiens sp.	'Super Elfin Mixed' Impatiens																							X					
Narcissus sp.	Daffodils																								X	X			
Pachysandra terminalis	Pachysan-dra																	X											
Vinca minor	Periwinkle																	X											
Vinca 'Pacific Punch'	'Pacific Punch' Vinca																							X					
Viola sp.	Pansies																								X	X			

Endnotes

[1] Susan Edens "Review of Washington Square CLR Plant Lists" November 10, 2010. Likely now known as *Celtis taiyanensis.* No English common name has been located for this Chinese species, although *Celtis* is known as Hackberry in the U.S.

[2] John F. Watson. *Watson's Annals of Philadelphia and Pennsylvania*, Vol. I, Philadelphia, PA: Elijah Thomas, 1857, pp. 405-7.

[3] Letter to Senate, n.d. (circa 1816-1824).

[4] List of trees, n.d. (circa 1816-1824); List of trees, n.d. (circa 1816-24); List of plants that may be had at Bartram's, n.d. (circa 1816-1824); and Untitled, undated list of trees.

[5] George Vaux to Mr. Poulson, n.d. (circa 1817).

[6] "List of Trees Proper to be Planted in the Public Squares of Philadelphia, 1816."

[7] List of trees, 1 January 1817; Receipt of George Vaux, 6 January 1817; List of trees, 28 October 1817; List of, receipt for trees, 31 October 1817; Harvey Elliott. Offer of trees. 2 December 1817; Untitled, undated list of trees.

[8] "List of trees planted in the S.E. public square of Philadelphia under direction of G. Vaux – principally in 1816 & 17," 1 January 1817.

[9] Brief of "Some Interesting Early Landreth Sales," Compiled 4/7/58 by D. Landreth Seed Company.

[10] "Diaries of Sidney George Fisher, 1839-40," PMHB (Jan. 1953) pp. 77-89.

[11] August 1842 survey of Washington Square by John B. Colahan "Entered According to an Act of Congress in the Year 1843 by M. Schmitz, P. Kereven in the Clerk's Office of the District Court for the Eastern District of PA," Historical Society of Pennsylvania.

[12] Thomas P. Cope Diary v. 7, 1844, pp. 81-82.

[13] "List of Trees (Noted by Mr. Gallagher)," March 1913.

[14] "Report on the Improvements of Washington Square in Philadelphia, Letter to Charles Francis Jenkins, from the Olmsted Brothers," April 22, 1913.

[15] J.K. Lloyd. "Planting Plan for Washington Square," November 13, 1920, approved by the chief engineer to the commissioners of Fairmount Park on January 5, 1921.

[16] Sidney Jenkins, Farm Journal, to Willis H. Satterthwaite, Penn Mutual, 8 June 1965.

[17] Thomas W. Sears. "Plan Showing Proposed Improvements, Washington Square, Philadelphia, PA," June 22, 1953.

[18] Thomas W. Sears. "Revised Estimate for Plant Material, Washington Square, Philadelphia, PA," 16 September 1954.

[19] Sidney Jenkins, Farm Journal, to Willis H. Satterthwaite, Penn Mutual, 8 June 1965.

[20] Thomas W. Sears, Landscape Architect, to Harry A. Batten, N.W. Ayer & Son Inc. 27 September 1965.

[21] The Delta Group. "Washington Square, Plant Lists." 5 March 1997.

[22] The Delta Group. Survey of Existing Trees in Washington Square, May 2001.

[23] Gerald McFeeley, Park Manager II, Fairmont Park Commission, Office of Operations and Landscape Management to Susan J. Edens, Cultural Landscape Architect, Independence National Historical Park. 2002. "2002 Annuals Schedule, District #2, Fairmount Park Spring Beatification Program."

[24] "Neighbors 'Dig In' to Plant Flowers," *Society Hill Civic Association Newsletter*, November/December 2004, p. 9.

[25] "Washington Square Happenings," *Society Hill Civic Association Newsletter*, November/December 2005, p. 5.

[26] Olmsted Center for Landscape Preservation. "Condition Assessment of Trees, Independence National Historical Park, Washington Square." National Park Service, Olmsted Center for Landscape Preservation, 2007-2008.

[27] Existing conditions vegetation inventory based on the 2008 Olmsted Center for Landscape Preservation "Condition Assessment of Trees" and field observations completed by Pressley Associates in December 2009 and April 2010; additional species added in fall 2010 based on subsequent inventory by the Morris Arboretum.

[28] Listed as *Pinus balsamea*, Silver Fir, in George Vaux's "List of Trees Proper to be Planted in the Public Squares of Philadelphia, 1816." at the Athenaeum of Philadelphia. Listed as *Pinus balsamea* on August 1842 survey of Washington Square by John B. Colahan.

[29] Listed as Maple in "List of Trees (Noted by Mr. Gallagher)"March, 1913. Listed as Maple in Thomas W. Sears. "Plan Showing Proposed Improvements, Washington Square, Philadelphia, PA," June 22, 1953.

[30] Listed as Ash Leaved Maple in George Vaux's papers 1816-1817 at the Athenaeum of Philadelphia. Listed as Boxelder in Thomas W. Sears. "Plan Showing Proposed Improvements, Washington Square, Philadelphia, PA," June 22, 1953.

[31] Listed as Black Sugar Maple in George Vaux's papers 1816-17 at the Athenaeum of Philadelphia.

[32] Listed as Norway Maple in "List of Trees (Noted by Mr. Gallagher)"March, 1913. Listed as N. Maple in Thomas W. Sears. "Plan Showing Proposed Improvements, Washington Square, Philadelphia, PA," June 22, 1953.

[33] Listed as Scarlet Flowering Maple in George Vaux's papers 1816-17 at the Athenaeum of Philadelphia.

[34] Listed as White Sugar Maple in George Vaux's papers 1816-17 at the Athenaeum of Philadelphia. Listed as Sugar Maple in "List of Trees (Noted by Mr. Gallagher)"March, 1913. Listed as Sugar Maple in Thomas W. Sears. "Plan Showing Proposed Improvements, Washington Square, Philadelphia, PA," June 22, 1953.

[35] Listed as *Acer dasycarpum* on August 1842 survey of Washington Square by John B. Colahan. Listed as Silver-leafed Maple in George Vaux's papers 1816-17 at the Athenaeum of Philadelphia. Listed as Silver Maple in "List of Trees (Noted by Mr. Gallagher)," March, 1913. Listed as Silver Maple in Thomas W. Sears. "Plan Showing Proposed Improvements, Washington Square, Philadelphia, PA," June 22, 1953.

[36] Listed as *Aesculus octandra* in Fairmount Park records, 2001.

[37] Listed as Buckeye in Thomas W. Sears. "Plan Showing Proposed Improvements, Washington Square, Philadelphia, PA," June 22, 1953.

[38] Listed as Horse Chestnut in "List of Trees (Noted by Mr. Gallagher)," March 1913. Listed as Horse Chestnut in Thomas W. Sears "Plan Showing Proposed Improvements, Washington Square, Philadelphia, PA," June 22, 1953.

[39] Listed as *Pavea lutea*, Buck Eye, in George Vaux's "List of Trees Proper to be Planted in the Public Squares of Philadelphia, 1816." at the Athenaeum of Philadelphia; and in George Vaux's papers 1816-17 at the Athenaeum of Philadelphia.

[40] Listed as *Ailanthus glandulosa* in August 1842 survey of Washington Square by John B. Colahan. Listed as *Ailanthus* in "List of Trees (Noted by Mr. Gallagher)," March, 1913. Listed as *Ailanthus* in Thomas W. Sears. "Plan Showing Proposed Improvements, Washington Square, Philadelphia, PA," June 22, 1953.

[41] Listed as White Birch on George Vaux to Mr. Poulson, n.d. (circa 1817) at the Athenaeum of Philadelphia.

[42] Listed as Red Birch on George Vaux to Mr. Poulson, n.d. (circa 1817) at the Athenaeum of Philadelphia.

[43] Listed as Paper Mulberry in George Vaux's papers 1816-17 at the Athenaeum of Philadelphia. Listed as *Morus papyrifera,* on August 1842 survey of Washington Square by John B. Colahan.

[44] Listed as Hopbeam in George Vaux's papers 1816-17 at the Athenaeum of Philadelphia.

[45] Listed as Hickory in "List of Trees (Noted by Mr. Gallagher)"March, 1913.

[46] Listed as *Juglans poicini* on August 1842 survey of Washington Square by John B. Colahan.

[47] Listed as Illinois Hickory [*sic*] on George Vaux to Mr. Poulson, n.d. (circa 1817). Listed as Pecan or Illinoise Hickory [*sic*] in George Vaux's papers 1816-17 at the Athenaeum of Philadelphia.

[48] Listed as *Castanea Americana* on August 1842 survey of Washington Square by John B. Colahan.

[49] Listed as Spanish Chestnut on "List of trees planted in the S.E. public square of Philadelphia under direction of G. Vaux – principally in 1816 & 17," 1 January 1817. Listed as *Castaea vesca* [sic] in the "List of Trees Proper to be Planted in the Public Squares of Philadelphia, 1816."

[50] Listed as Catalpa in "List of Trees (Noted by Mr. Gallagher)" March, 1913. Listed as Catalpa in Thomas W. Sears. "Plan Showing Proposed Improvements, Washington Square, Philadelphia, PA," June 22, 1953.

[51] Listed as *Bignonia catalpa* in George Vaux's papers 1816-17 at the Athenaeum of Philadelphia; listed as *Catalpa syringifolia* [*sic*] on August 1842 survey of Washington Square by John B. Colahan.

[52] Listed as *Celtis cerafifolia* [sic] in "List of Trees Proper to be Planted in the Public Squares of Philadelphia, 1816."

[53] Listed as Judas Tree in "List of trees planted in the S.E. public square of Philadelphia under direction of G. Vaux – principally in 1816 & 17," 1 January 1817.

[54] Listed as Thorn on Thomas W. Sears "Plan Showing Proposed Improvements, Washington Square, Philadelphia, PA," June 22, 1953.

[55] Listed as Washington Thorn on Sidney Jenkins, Farm Journal, to Willis H. Satterthwaite, Penn Mutual, 8 June 1965. Listed as Washington Thorn on Sidney Jenkins, Farm Journal, to Willis H. Satterthwaite, Penn Mutual, 8 June 1965 (1964).

[56] Listed as Cypress in George Vaux's papers 1816-17 at the Athenaeum of Philadelphia.

[57] Listed as *Euonymus patens* in Thomas W. Sears "Revised Estimate for Plant Material, Washington Square, Philadelphia, PA," 16 September 1954.

[58] Listed as both *Fagus americana* (White Ash) and *Fagus ferruginea* (White Beech) in George Vaux's "List of Trees Proper to be Planted in the Public Squares of Philadelphia, 1816." Listed as *Fagus ferruginea* on August 1842 survey of Washington Square by John B. Colahan.

[59] Listed as *Gordonia franklinia,* Franklinia, in George Vaux's "List of Trees Proper to be Planted in the Public Squares of Philadelphia, 1816."

[60] Listed as Ash in "List of Trees (Noted by Mr. Gallagher)"March, 1913. Listed as Ash in Thomas W. Sears "Plan Showing Proposed Improvements, Washington Square, Philadelphia, PA," June 22, 1953.

[61] Listed as *Fraxinus americana forma acuminata*, and before that *Fraxinus acuminate* on August 1842 survey of Washington Square by John B. Colahan.

[62] Listed as *Fraxinus epiptera* on August 1842 survey of Washington Square by John B. Colahan.

[63] Listed as *Fraxinus europa* on August 1842 survey of Washington Square by John B. Colahan.

[64] Listed as *Fraxinus juglandifolia* on August 1842 survey of Washington Square by John B Colahan. Listed as *Fraxinus pubscens* on August 1842 survey of Washington Square by John B. Colahan.

[65] Listed as *Fraxinus sambucifolia* (Black Ash) on August 1842 survey of Washington Square by John B Colahan.

[66] Listed as *Gymnocladus canadensis* on August 1842 survey of Washington Square by John B Colahan. Listed as *Gymnocladus dioicum (*Kentucky Coffee Tree) in Thomas W. Sears, Landscape Architect, to Harry A. Batten, 27 September 1965 (1965-1966), The Delta Group's "Washington Square, Plant Lists." 5 March 1997, and The Delta Group's Survey of Existing Trees in Washington Square, May 2001. Listed as Kentucky Coffeetree in "List of Trees (Noted by Mr. Gallagher)," March 1913.

[67] Listed as *Halesia* in Thomas W. Sears. "Plan Showing Proposed Improvements, Washington Square, Philadelphia, PA," June 22, 1953.

[68] Listed as White Walnut in George Vaux's papers 1816-17 at the Athenaeum of Philadelphia. Listed as *Juglans cathartica,* Butternut, in George Vaux's "List of Trees Proper to be Planted in the Public Squares of Philadelphia, 1816." Listed as *Juglans* sp., Butternut, in George Vaux's papers 1816-17 at the Athenaeum of Philadelphia.

[69] Listed as Juniper Tree in George Vaux's papers 1816-17 at the Athenaeum of Philadelphia.

[70] Listed as Red Cedar in George Vaux's papers 1816-17 at the Athenaeum of Philadelphia.

[71] Listed as Pride of China in George Vaux's papers 1816-17 at the Athenaeum of Philadelphia.

[72] Listed as Lyburnum in George Vaux's papers 1816-17 at the Athenaeum of Philadelphia.

[73] Listed as Larch on George Vaux to Mr. Poulson, n.d. (circa 1817).

[74] Listed as Native Larch in George Vaux's papers 1816-17 at the Athenaeum of Philadelphia.

[75] Listed as Foreign Larch in George Vaux's papers 1816-17 at the Athenaeum of Philadelphia.

[76] Listed as *Larix pendula* on August 1842 survey of Washington Square by John B. Colahan.

[77] Listed as Sweet Gum on George Vaux's List of trees (circa 1816-1824) at the Athenaeum of Philadelphia. Listed as Sweet Gum by Sidney Jenkins, Farm Journal, to Willis H. Satterthwaite at the Athenaeum of Philadelphia. Listed as Sweet Gum by Sidney Jenkins, Farm Journal, to Willis H. Satterthwaite at the Athenaeum of Philadelphia. (1964)

[78] Listed as Poplar or Tulip Tree on George Vaux Papers "List of Trees Proper to be Planted in the Public Squares of Philadelphia, 1816." at the Athenaeum of Philadelphia. Listed as Tulip Poplar on George Vaux to Mr. Poulson, n.d. (circa 1817) at the Athenaeum of Philadelphia, in George Vaux's papers 1816-17 at the Athenaeum of Philadelphia and J.K. Lloyd's "Planting Plan for Washington Square," November 13, 1920, approved by the chief engineer to the commissioners of Fairmount Park on January 5, 1921. Listed as Tulip

Tree in George Vaux's List of Trees 1817 at the Athenaeum of Philadelphia and Sidney Jenkins, Farm Journal, to Willis H. Satterthwaite at the Athenaeum of Philadelphia. Listed as Tulip Tree in "List of Trees (Noted by Mr. Gallagher)"March, 1913. Listed as Tulip Poplar in Thomas W. Sears. "Plan Showing Proposed Improvements, Washington Square, Philadelphia, PA," June 22, 1953. Listed as Tulip Poplar in letter from Sidney Jenkins, Farm Journal, to Willis H. Satterthwaite at the Athenaeum of Philadelphia. (1964)

[79] Listed as Cucumber Tree in George Vaux's papers 1816-17 at the Athenaeum of Philadelphia.

[80] Listed as *Magnolia Grandiflora*, Big Laurel, in George Vaux's "List of Trees Proper to be Planted in the Public Squares of Philadelphia, 1816." at the Athenaeum of Philadelphia. Listed as Kentucky Coffeetree in Thomas W. Sears. "Plan Showing Proposed Improvements, Washington Square, Philadelphia, PA," June 22, 1953.

[81] Listed as Umbrella Magnolia in J.K. Lloyd. "Planting Plan for Washington Square," November 13, 1920, approved by the chief engineer to the commissioners of Fairmount Park on January 5, 1921.

[82] Listed as *Magnolia consfuca* on August 1842 survey of Washington Square by John B. Colahan.

[83] Listed as *Magnolia glauca*, Swamp Laurel, in George Vaux's "List of Trees Proper to be Planted in the Public Squares of Philadelphia, 1816." at the Athenaeum of Philadelphia.

[84] Listed as *Pinus abies* on August 1842 survey of Washington Square by John B. Colahan.

[85] Listed as Pitch Pine in George Vaux's papers 1816-17 at the Athenaeum of Philadelphia.

[86] Listed as Three-leaved Pine in George Vaux's "List of Trees Proper to be Planted in the Public Squares of Philadelphia, 1816." at the Athenaeum of Philadelphia.

[87] Listed as White Pine in letter from George Vaux to Mr. Poulson, n.d. (circa 1817); and in George Vaux's List of Trees 1817 at the Athenaeum of Philadelphia.

[88] Listed as Scotch Fir in George Vaux's "List of Trees Proper to be Planted in the Public Squares of Philadelphia, 1816." at the Athenaeum of Philadelphia; listed as Scotch Fir in letter from George Vaux to Mr. Poulson, n.d. (circa 1817); and listed as Scotch Fir in George Vaux's papers 1816-17 at the Athenaeum of Philadelphia.

[89] Listed as Plane in "List of Trees (Noted by Mr. Gallagher)"March, 1913. Listed as Plane in Thomas W. Sears. "Plan Showing Proposed Improvements, Washington Square, Philadelphia, PA," June 22, 1953.

[90] Listed as Eastern Plane Tree in "List of Trees Proper to be Planted in the Public Squares of Philadelphia, 1816." at the Athenaeum of Philadelphia.

[91] Listed as European Sycamore in George Vaux's papers 1816-17 at the Athenaeum of Philadelphia.

[92] Listed as Buttonwood in letter from George Vaux to Mr. Poulson, n.d. (circa 1817); George Vaux's "List of Trees Proper to be Planted in the Public Squares of Philadelphia, 1816." at the Athenaeum of Philadelphia; and in George Vaux's List of Trees 1817 at the Athenaeum of Philadelphia. Listed as Buttonwood or Planetree in George Vaux's papers 1816-17 at the Athenaeum of Philadelphia.

[93] Listed as Oriental Plane Tree in George Vaux's List of trees (circa 1816-1824) at the Athenaeum of Philadelphia. Listed as Oriental Plane in "List of Trees (Noted by Mr. Gallagher)"March, 1913.

[94] Listed as Poplar in "List of Trees (Noted by Mr. Gallagher)," March 1913.

[95] Formerly *Populus candicans* & *Populus tacamahaca*. Listed as *Tacamahae* sp., Balsam Poplar in George Vaux's List of trees (circa 1816-1824) at the Athenaeum of Philadelphia. Listed as Balsam of Gilead in George Vaux's papers 1816-17 at the Athenaeum of Philadelphia; and Brief of "Some Interesting Early Landreth Sales," Compiled 4/7/58 by D. Landreth Seed Company.

[96] Listed as Black Poplar in George Vaux's papers 1816-17 at the Athenaeum of Philadelphia.

[97] Listed as Lombardy Poplar in George Vaux Papers Letter to Senate (circa 1816-1824) at the Athenaeum of Philadelphia.

[98] Listed as Aspen in letter from George Vaux to Mr. Poulson, n.d. (circa 1817); and in George Vaux's papers 1816-17 at the Athenaeum of Philadelphia.

[99] Listed as Flowering Cherry on George Vaux's "List of Trees Proper to be Planted in the Public Squares of Philadelphia, 1816." at the Athenaeum of Philadelphia.

[100] Listed as Double Flowering Cherry in George Vaux's papers 1816-17 at the Athenaeum of Philadelphia.

[101] Listed as Native Wild Cherry in George Vaux's papers 1816-17 at the Athenaeum of Philadelphia.

[102] Listed as *Cerasus makeleb* on August 1842 survey of Washington Square by John B. Colahan.

[103] Listed as *Prinus borealis* on August 1842 survey of Washington Square by John B. Colahan. *Prunus borealis* is now *P. pennsylvanica.*

[104] Listed as Oak in letter from George Vaux to Mr. Poulson, n.d. (circa 1817); and in the "Diaries of Sidney George Fisher, 1839-40," PMHB (Jan. 1953). Listed as Oak in "List of Trees (Noted by Mr. Gallagher)," March 1913. Listed as Oak in Thomas W. Sears. "Plan Showing Proposed Improvements, Washington Square, Philadelphia, PA," June 22, 1953.

[105] Listed as White Oak in George Vaux's papers 1816-17 at the Athenaeum of Philadelphia.

[106] Listed as Spanish Oak in George Vaux's papers 1816-17 at the Athenaeum of Philadelphia.

[107] Listed as Turkey Oak (American Turkey Oak) in Thomas W. Sears. "Plan Showing Proposed Improvements, Washington Square, Philadelphia, PA," June 22, 1953.

[108] Listed as Mossycup Oak in Thomas W. Sears "Plan Showing Proposed Improvements, Washington Square, Philadelphia, PA," June 22, 1953.

[109] Listed as *Quercus ferruginea,* Black Jack, in George Vaux's "List of Trees Proper to be Planted in the Public Squares of Philadelphia, 1816." at the Athenaeum of Philadelphia. Listed as Barren Oak in George Vaux's papers 1816-17 at the Athenaeum of Philadelphia.

[110] Listed as *Quercus Prinus palustris,* Chestnut White Oak, in "List of Trees Proper to be Planted in the Public Squares of Philadelphia, 1816."

[111] Listed as Yellow Oak in George Vaux's papers 1816-17 at the Athenaeum of Philadelphia.

[112] Listed as Pin Oak in "List of Trees (Noted by Mr. Gallagher)," March 1913. Listed as Pin Oak on Sidney Jenkins, Farm Journal, to Willis H. Satterthwaite, Penn Mutual, 8 June 1965. (1964). Listed as Pin Oak in Thomas W. Sears. "Plan Showing Proposed Improvements, Washington Square, Philadelphia, PA," June 22, 1953.

[113] Listed as European Oak in George Vaux's List of trees, (circa 1816-1824) at the Athenaeum of Philadelphia. Listed as European Oak in George Vaux's "List of Trees Proper to be Planted in the Public Squares of Philadelphia, 1816." at the Athenaeum of Philadelphia. Listed as European Oak in George Vaux's papers 1816-17 at the Athenaeum of Philadelphia. Listed as English Oak in "List of Trees (Noted by Mr. Gallagher)"March, 1913. Listed as *Quercus ruber* [*sic*] on "Report on the Improvements of Washington Square in Philadelphia, Letter to Charles Francis Jenkins, from the Olmsted Brothers," April 22, 1913.

[114] Listed as Red Oak in Thomas W. Sears. "Plan Showing Proposed Improvements, Washington Square, Philadelphia, PA," June 22, 1953.

[115] Listed as Cork Bark Oak, Cork Bark White Oak, and Deciduous Cork Bark Oak in George Vaux's papers 1816-17 at the Athenaeum of Philadelphia. *Quercus suber* is not hardy in Pennsylvania.

[116] Listed as *Quercus tinctoria* in "List of Trees Proper to be Planted in the Public Squares of Philadelphia, 1816." Listed as Black Oak in Thomas W. Sears. "Plan Showing Proposed Improvements, Washington Square, Philadelphia, PA," June 22, 1953.

[117] Listed as Red Locust in George Vaux to Mr. Poulson, n.d. (circa 1817) and "List of trees planted in the S.E. public square of Philadelphia under direction of G. Vaux – principally in 1816 & 17," 1 January 1817. Listed as Locust in "List of Trees (Noted by Mr. Gallagher)"March, 1913. Listed as Locust in Thomas W. Sears. "Plan Showing Proposed Improvements, Washington Square, Philadelphia, PA," June 22, 1953.

[118] Listed as White Locust in George Vaux to Mr. Poulson, n.d. (circa 1817) and "List of trees planted in the S.E. public square of Philadelphia under direction of G. Vaux – principally in 1816 & 17," 1 January 1817.

[119] Listed as Sassafras in George Vaux's papers 1816-17 at the Athenaeum of Philadelphia. Listed as *Laurus sassafrass* on August 1842 survey of Washington Square by John B. Colahan.

[120] Listed as Mountain Ash in George Vaux to Mr. Poulson, n.d. (circa 1817); "List of Trees Proper to be Planted in the Public Squares of Philadelphia, 1816"; and "List of trees planted in the S.E. public square of Philadelphia under direction of G. Vaux – principally in 1816 & 17," 1 January 1817.

[121] Formerly *Sophora japonica.*

[122] Listed as *Cupressus disticha*, Bald Cypress, in George Vaux's "List of trees planted in the S.E. public square of Philadelphia under direction of G. Vaux – principally in 1816 & 17," 1 January 1817; in George Vaux's papers 1816-17 at the Athenaeum of Philadelphia; and on August 1842 survey of Washington Square by John B. Colahan. Listed as *Cupressus dichola,* Cypress, in George Vaux's "List of Trees Proper to be Planted in the Public Squares of Philadelphia, 1816." at the Athenaeum of Philadelphia. Listed as Bald Cypress in Thomas W. Sears. "Plan Showing Proposed Improvements, Washington Square, Philadelphia, PA," June 22, 1953.

[123] Listed as China Arbor Vitae in George Vaux's papers 1816-17 at the Athenaeum of Philadelphia.

[124] Listed as Linden in "List of Trees (Noted by Mr. Gallagher)," March 1913. Listed as Linden in Thomas W. Sears. "Plan Showing Proposed Improvements, Washington Square, Philadelphia, PA," June 22, 1953.

[125] Listed as White Linden in George Vaux's papers 1816-1817 at the Athenaeum of Philadelphia. Listed as American Linden in "List of Trees (Noted by Mr. Gallagher)"March, 1913.

[126] Listed as Largeleaf Linden in Thomas W. Sears. "Plan Showing Proposed Improvements, Washington Square, Philadelphia, PA," June 22, 1953.

[127] Listed as White Lime in George Vaux's "List of Trees Proper to be Planted in the Public Squares of Philadelphia, 1816." at the Athenaeum of Philadelphia; listed as Silver Linden in J.K. Lloyd's "Planting Plan for Washington Square," November 13, 1920, approved by the chief engineer to the commissioners of Fairmount Park on January 5, 1921.

[128] Listed as *Pinus canadensis*, Hemlock Pine, in George Vaux's "List of Trees Proper to be Planted in the Public Squares of Philadelphia, 1816." at the Athenaeum of Philadelphia. Listed as Hemlock Spruce in George Vaux's papers 1816-17 at the Athenaeum of Philadelphia.

[129] Listed as Elm in "List of Trees (Noted by Mr. Gallagher)" March, 1913. Listed as Elm on J.K. Lloyd. "Planting Plan for Washington Square," November 13, 1920, approved by the chief engineer to the commissioners of Fairmount Park on January 5, 1921. Listed as Elm in Thomas W. Sears. "Plan Showing Proposed Improvements, Washington Square, Philadelphia, PA," June 22, 1953.

[130] Recent identification by the Morris Arboretum indicates that all of the elms in Washington Square are cultivars.

[131] Listed as *Ulmus aspera* on "List of Trees Proper to be Planted in the Public Squares of Philadelphia, 1816."

[132] Listed as Chinese Elm in Thomas W. Sears. "Plan Showing Proposed Improvements, Washington Square, Philadelphia, PA," June 22, 1953.

[133] Listed as English Elm in "List of Trees (Noted by Mr. Gallagher)," March 1913.

[134] Listed as *Cupressus thyoides* in George Vaux's "List of Trees Proper to be Planted in the Public Squares of Philadelphia, 1816." Could be either *Chamaecyparis thyoides* or *Thuja occidentalis*.

[135] Listed as Cedar in "List of trees planted in the S.E. public square of Philadelphia under direction of G. Vaux – principally in 1816 & 17," 1 January 1817.

[136] Listed as Cotton Tree or George's in George Vaux's papers 1816-17 at the Athenaeum of Philadelphia.

[137] Listed as Cypress in "List of Trees (Noted by Mr. Gallagher)," March 1913.

[138] Listed as Deciduous Cypress in George Vaux's List of trees, (circa 1816-1824) at the Athenaeum of Philadelphia.

[139] Listed as Gum in George Vaux's papers 1816-17 at the Athenaeum of Philadelphia; could be either *Liquidambar styraciflua* or *Nyssa sylvatica*. Listed as Gum on Thomas W. Sears. "Plan Showing Proposed Improvements, Washington Square, Philadelphia, PA," June 22, 1953; could be either *Liquidambar styraciflua* or *Nyssa sylvatica*.

[140] Listed as both *fagus tomentosa* and Red Ash in George Vaux's "List of Trees Proper to be Planted in the Public Squares of Philadelphia, 1816." at the Athenaeum of Philadelphia.

[141] Listed as Flowering Cherry from the Rocky Mountains (Lewis & Clark) in George Vaux's papers 1816-17 at the Athenaeum of Philadelphia.

[142] Listed as Bedford Oak in "List of trees planted in the S.E. public square of Philadelphia under direction of G. Vaux – principally in 1816 & 17," 1 January 1817; and in George Vaux's papers 1816-17 at the Athenaeum of Philadelphia.

[143] Listed as Swamp Oak or Pin Oak in George Vaux's papers 1816-17 at the Athenaeum of Philadelphia; could be either *Quercus bicolor* (Swamp White Oak), or *Quercus palustris* (Pin Oak.)

[144] Listed as *Sorbus canadensis,* on August 1842 survey of Washington Square by John B. Colahan.

[145] Listed as *Ilex cornuta,* in The Delta Group's Survey of Existing Trees in Washington Square, May 2001.

[146] Listed as *Ilex bullata* in Thomas W. Sears "Revised Estimate for Plant Material, Washington Square, Philadelphia, PA," 16 September 1954.

[147] Listed as *Ligustrum regelianum* on Thomas W. Sears. "Revised Estimate for Plant Material, Washington Square, Philadelphia, PA," 16 September 1954.

[148] Listed as *Cerasus japonica* on August 1842 survey of Washington Square by John B. Colahan.

[149] Listed as *Rhodotypus kerrioides* on Thomas W. Sears. "Revised Estimate for Plant Material, Washington Square, Philadelphia, PA," 16 September 1954.

[150] Listed as *Viburnum arboretum* in George Vaux's List of trees, (circa 1816-1824) at the Athenaeum of Philadelphia.

APPENDIX H

STANDARDS FOR REHABILITATION

The Secretary of the Interior's Standards for the Treatment of Historic Properties

Standards for Rehabilitation

1. A property will be used as it was historically, or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.

2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.

3. Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.

4. Changes to a property that have acquired significance in their own right shall be retained and preserved.

5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.

6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.

7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.

8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.

10. New additions and adjacent new construction will be undertaken in such a manner, that if removed in the future, the essential form and integrity of the historic property and its environments would be unimpaired.