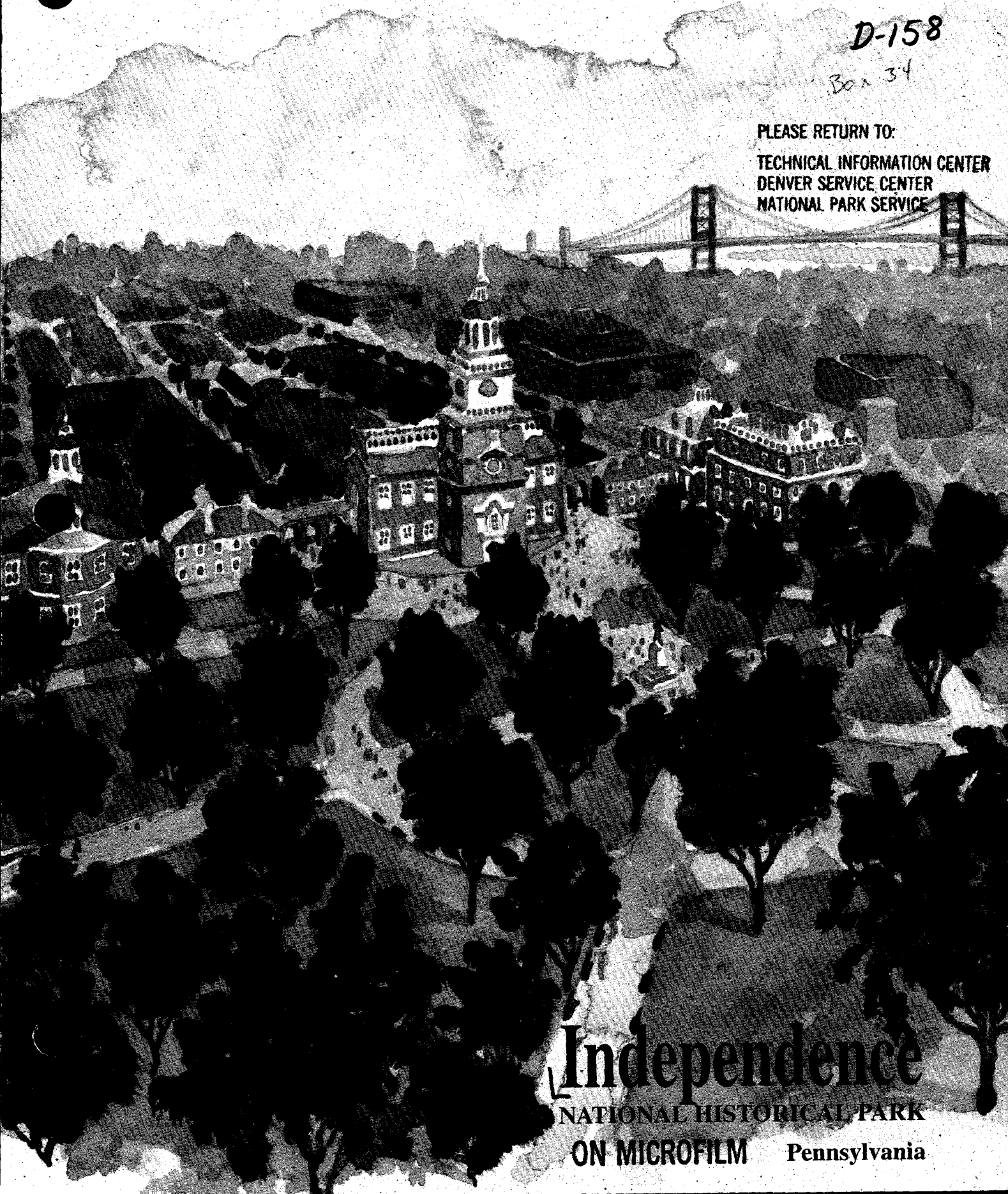
Cultural Landscape Report
Independence Square
Volume Two

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Enclosed please find a complimentary copy of Cultural Landscape Report, Independence Square Volume II, for Independence National Historical Park. Volume I of this study is a history of Independence Square and it is in peer review as part of the publications process.

Thank you for making this report available to interested parties.

Sincerely,

Doris Devine Fanelli, Ph.D., Chief
Division of Cultural Resources Management

CULTURAL LANDSCAPE REPORT FOR INDEPENDENCE SQUARE
VOLUME TWO

Independence National Historical Park, Pennsylvania
March 1998

Prepared by
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United States Department of the Interior • National Park Service

EXECUTIVE SUMMARY

This *cultural landscape report* documents, evaluates, and recommends treatment for the historic landscape known as Independence Square, bounded on the north by Chestnut Street, on the south by Walnut Street and between 5th and 6th Streets on the east and west. This National Landmark and World Heritage Site is the setting for Independence Hall, Congress Hall, and Old City Hall. The purpose of this report is not only to facilitate appropriate treatment, but to document the landscape at this point in time, at the end of the 20th century, in effort that it may contribute to effective stewardship in the future when other major treatment activities are being considered.

The report is divided into five chapters addressing: the history and evolution of the square; analysis of significance and integrity; the description, background, condition, and significance of the individual landscape character features comprising the square; the recommendation for treatment; and the schematic design providing detailed information for implementing the treatment recommendations.

The recommendation for treatment is made within the context of the Secretary of Interior's Standards for Historic Preservation, Guidelines for Landscape Treatment. The principal factors influencing the treatment recommendation include the Independence National Historical Park General Management Plan, contemporary accessibility requirements according to the Uniform Federal Accessibility Standards (UFAS) and the Americans with Disabilities Act (ADA); the analysis of significance and integrity, and the deteriorated condition of the square.

Of the four recognized treatments for cultural landscapes, (preservation, rehabilitation, restoration and reconstruction) **rehabilitation** is the recommended approach. This preserves historic fabric while allowing changes in response to contemporary functions and needs in a manner appropriate to the resource. Rehabilitation establishes parameters for implementing site repair work and for addressing the issues of accessibility, security, and life safety. The landscape evident today is an evolved landscape with features remaining from several major improvement efforts spanning the last two hundred and fifty years. Any treatment other than rehabilitation would severely limit efforts to satisfy contemporary management requirements or would require invasive activities eliminating layers of historic fabric and features.

The schematic design is the beginning of the formal design process, the activity that first addresses creating physical forms and changes in the landscape. In this situation it addresses in detail the following recommended repair and improvement items listed in priority order based on their relative importance as determined by the "Choosing By Advantages" decision making process.

1. Repair paving and drainage. Resolve accessibility.

2. Repair walk lights and provide high quality exterior building lighting.

3. Eliminate hazardous tree limbs.

4. Install a new Irrigation system.

5. Repair brick walls, piers and coping. Repair stairs. Install handrails on all stairways.

6. Replace shrub plantings at stairways.

7. Provide graphic and audio wayside exhibits to interpret Independence Square.

8. Repair damaged site furnishings. Replace missing features.

In addition to providing direction for repair of the existing landscape features, it describes the following specific proposals for new components needed to address park management's requirements:

- Alternative schemes for re-establishing street trees along Chestnut Street.
- To provide universal access to the Independence Hall building complex, it is recommended that the temporary ramps be considered permanent and their designs be modified to enhance durability, minimize maintenance, and extend their lifespans.
- Alternative stairway handrail designs are presented to improve visitor safety.

The class C construction cost estimate to implement these tasks is $4,156,640 (gross).

Independence Square is not unlike many historically significant public urban spaces in the United States. They undergo major improvement programs and are then left receiving only minimal care for extended periods of time. The area south of Independence Hall has remained essentially unchanged since the 1915 American Institute of Architects rehabilitation The frontage along Chestnut Street was more recently transformed by the 1974 reconstruction of the "Capitol City" period landscape. Independence Square has faired remarkably well, but today this important landscape is at a turning point. The flagstone paving and site utilities are such that continued lack of attention will result in escalating damage to landscape features and serious life safety concerns for visitors. It is necessary that the appropriate steps be taken to insure that Independence Square will continue to be a landscape that the American people can be proud of for generations to come.

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ACKNOWLEDGMENTS

This cultural landscape report was a collaborative effort teaming staff from Independence National Historical Park, The Olmsted Center for Landscape Preservation, the Philadelphia Support Office and the Denver Service Center. The notion of a partnership originated with Shaun Eyring, Philadelphia Support Office, and Doris Fanelli, Independence National Historical Park, in recognizing the needs of the project and the capabilities of the offices that were interested in doing this CLR. Producing this document was an intensive effort requiring many hours of research, organization, writing and editing. It was through the dedicated staff of these four organizations and the support provided by each office that has enabled this report to come to fruition.

Many people contributed to this report in a variety of ways providing valuable background information, assisting with data collection, and research. These individuals are: Dan Tower, Jan Sikoryak, Allen Cooper, Dave Fritz, Leslie Ullman, Diann Jacox, Nick Wyman, Roy Broadbent, Jack Dunleavy, Katy Lacy, Deirdre Gibson, Keith Everett, Bonnie Halda, Cliff Northrop, Ray Fossett, George Martin, Mike Callahan, Walt Anderson, Karen Stevens, Tony Digneo, Manuel Sais, Charles Smithgall of Lancaster, Pennsylvania, and Brucy Laverty, Curator of the Philadelphia Athenaeum.

A special thanks to landscape technician Lauren Merrill, who prepared the many Autocad drawings contained in the CLR; Mary Ryan, visual information technician, who assembled and composed this report; and Philip Thys, visual information specialist, who created the watercolor painting on the cover.

Although all of the project team members contributed to material presented in each section, principal authorship responsibilities were as follows:

Anna Coxe Toogood authored the Independence Square Historical Narrative and Chapter 1, the Historical Summary.

Lauren Meier wrote Chapter 2, Analysis of Integrity and Significance and Appendix A, Historic Contexts, as well as co-authored Chapter 3, Landscape Features.

Wendy Davidson co-authored Chapter 3, Landscape Features.

Eliot Foulds authored both the Introduction and Chapter 4, Treatment Recommendations, and co-authored Chapter 3, Landscape Features. In addition, he prepared the Period Plans and the Existing Conditions Plan.

Joe Crystal co-authored Chapter 3, Landscape Features, and authored Chapter 5, the Schematic Design.

Katherine Bennett and Charlie Pepper prepared the Woody Plant Inventory and Condition Assessment Report found in Appendix B.

In conclusion, I would like to recognize the contributions of all the people listed on the title page of this report, those individuals who comprised the project review team. Seldom have I had the pleasure to work with such a dedicated, positive thinking group of people. We had extremely productive meetings and timely, thorough and thoughtful reviews that helped keep the project on track and greatly contributed to the high quality of the information presented in the report. Working with these outstanding professionals was the most enjoyable and rewarding aspect of the project and they are to be commended for their efforts.

Joe Crystal, Job Captain

INTRODUCTION

No part of the said ground lying to the southward of the State House as it is now built be converted into or made use of for erecting any sort of buildings thereon, but that the said ground shall be enclosed and remain a public open green and walks forever.

—-Pennsylvania Assembly -1736

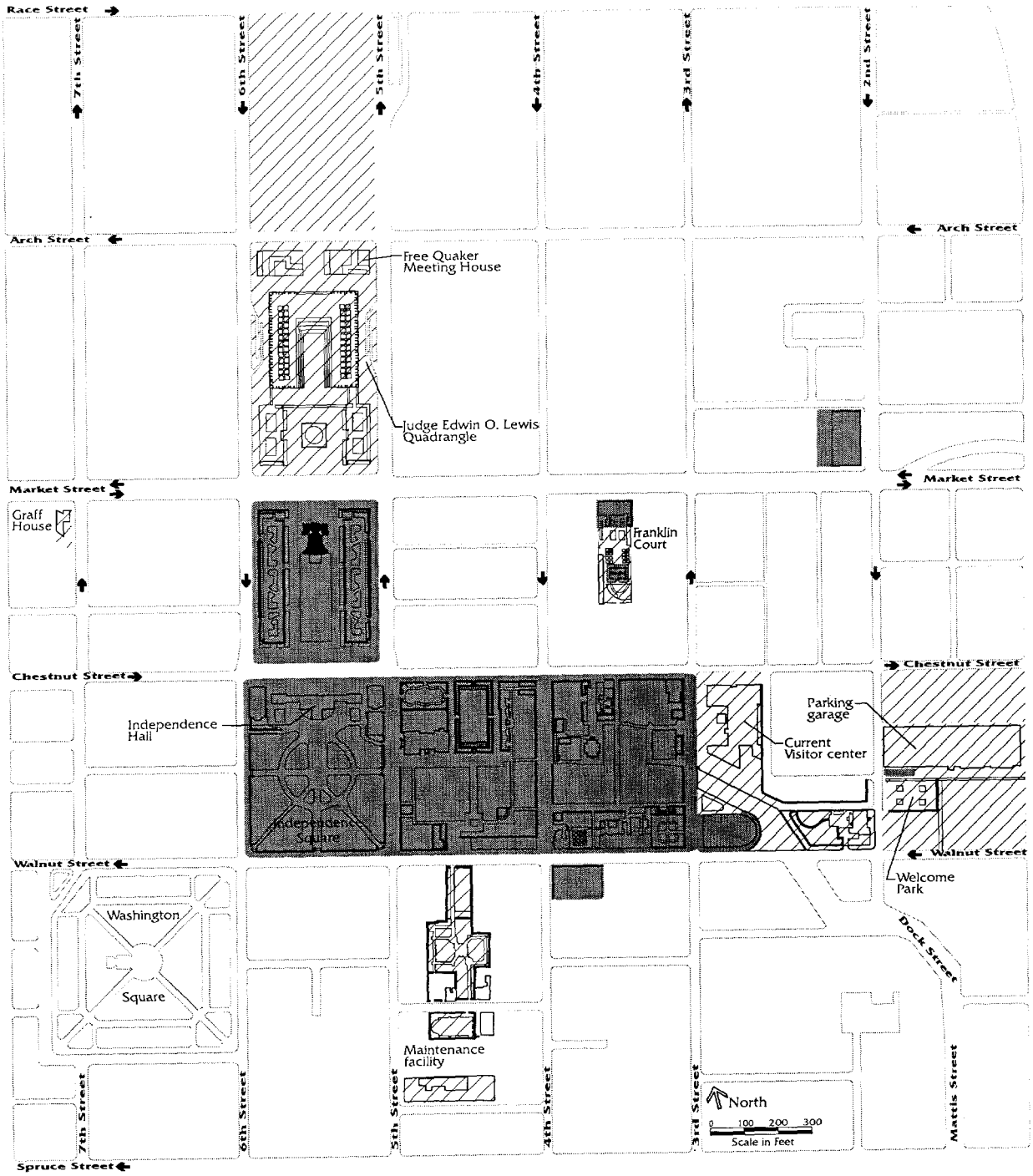
William Penn's libertarian commonwealth had been founded for almost fifty years before the Pennsylvania assembly saw fit to provide itself with a suitable meeting place. Two hundred and sixty years later, the words of that colonial assembly are lost within a greater history, yet appear to have provided early "design guidelines" for later decisions regarding the place we now call Independence Square.

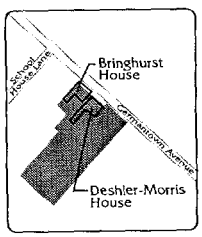
Penn's agents surveyed five public squares into the original gridiron plan for Philadelphia, a plan that may have been inspired by a Renaissance scheme for an ideal city published by Cataneo in 1567. The new public green behind the state house created a sixth square. The first five squares thus far had been merely reserved for utilitarian purposes. For the sixth, the provincial assembly proposed that "...the ground to be leveled, and enclosed with a Board Fence in order that Walks may be laid out, and Trees planted, to render the same more beautiful and commodious." Far from utilitarian, these plans were suggestive of the creation of one of the first "designed" urban parks in Colonial America. To this effect, the assembly purchased individual lots making up the entire city block bounded north and south by Chestnut and Walnut Streets, east and west by Fifth and Sixth Streets, razing the existing buildings.

Yet, while independence from the British crown was being debated within the State House, the grounds of the adjacent square served as a storage lot rather than a pleasure ground. The chaos born of rebellion and the demands of more urgent priorities postponed the completion of the "State House Garden" until well after the 1781 British surrender in Yorktown. Finally, a "fine display of rural fancy and elegance" was completed at the square just in time to be admired by delegates meeting there "...to form a more perfect union" during 1787.

The founding documents of the new republic both recognized and encouraged the independent character of its citizens. It is not surprising then that competing interests would challenge the colonial goal of keeping the square south of the State House free from additional buildings. Philosophical Hall (1785) and the New District Courthouse (1866-1901) speak to the fact that vision is sometimes encumbered by circumstance. Nevertheless, Independence Square promises to enter the 21st Century as it entered the 19th and the 20th, serving as a green, shady, public square associated with one of the most venerated groups of buildings in our nation's history.

The square is approximately five acres in size, the dimensions of the city block measuring 520 feet by 420 feet. Excluding the belltower, the southern facade of Independence Hall projects 100 feet into the square, giving truly "square" proportions to the area lying to the south of the building. At the northern edge of the square, Independence Hall, Congress Hall and Old City Hall are arranged to create a forecourt along Chestnut Street. During the 1970's features associated with this area were reconstructed to reflect conditions extant during Philadelphia's "Capitol City Decade" from 1790-1800. These features include brick and simulated pebblestone paving, reconstructed wooden hand pumps and guard houses known as





Cultural zone

Park development zone

Management Zoning
Existing Conditions
Draft General Management Plan
Environmental Impact Statement
Independence National Historical Park
U. S. Department of the Interior/National Park Service
391/20,078A/July 95/DSC

Figure 1: Existing Conditions

"watchboxes." Later features associated with this area such as a statue of George Washington (1869) and a double row of trees (1817) have been retained.

The portion of the square to the south of Independence Hall and north of Walnut Street has changed relatively little since its last redesign in 1915 at the direction of the Philadelphia Chapter of the American Institute of Architects (AIA). This shady precinct is characterized by its mature canopy of deciduous trees, a radially organized pathway system and a brick perimeter wall in the Colonial style. The pathways range from 15 to 20 feet in width and are paved with massive slabs of bluestone. The layout of these pathways focuses pedestrian traffic towards a central crossing where a statue of Commodore Barry, a naval hero of the Revolutionary War, is prominently displayed.

Independence Square has been managed since 1951 by the National Park Service through a cooperative agreement with its owner, the City of Philadelphia. The square lies at the heart of the "Cultural Zone" belonging to Independence National Historical Park — created by an Act of Congress in 1948. All properties within this area have been recorded as part of a "district" by the National Register of Historic Places. The singular importance of Independence Hall and its setting (the square) has been internationally recognized through designation as a World Heritage Site owing to its association with ideas, beliefs and events of outstanding historical importance. (See figure 1.)

The following *Cultural Landscape Report for Independence Square* was initiated in response to plans for establishing a new management direction aimed at providing better stewardship for park resources at Independence NHP. The preparation of this cultural landscape report (CLR) was stipulated by the park's revised General Management Plan which states that "cultural resources and their settings will be preserved, protected, and interpreted as defined by historic structures reports, historic resource studies, and cultural landscape reports."

The National Park Service has identified the CLR as the primary guide for treatment and use of a cultural landscape. With reference to appropriate historical context, a CLR documents and evaluates landscape features and qualities that make a site eligible for listing on the National Register of Historic Places. A cultural landscape report typically analyzes a landscape's geographical context, development and evolution, materials, construction techniques, and use in all periods, including those deemed not significant. Drawing upon many disciplines, a CLR documents, analyzes, and evaluates historical, architectural, archeological, ethnographic, horticultural, landscape architectural, engineering, and ecological data as appropriate. It makes recommendations for treatment consistent with the landscape's significance, condition, and use.

The preparation of the *Cultural Landscape Report for Independence Square* is also timed to inform the Utility Improvement Project (UIP) underway at Independence NHP. This multi-year project aims to renovate and upgrade the environmental and safety systems throughout the park. A later phase of the UIP will focus on repairing the "severely deteriorated" features of Independence Square. As a treatment oriented tool, the *Cultural Landscape Report for Independence Square* will summarize the history and significance of Independence Square, identify and document features and characteristics of the landscape requiring attention, and finally guide appropriate treatment choices.

This report draws upon decades of previous historical, archeological and resource management studies. These include the recent *Independence Square Historical Narrative* (Volume One of this CLR) by Anna Coxe Toogood. When finalized, this historical narrative will serve as a scholarly document providing an extensive chronicle of the history of

Independence Square and the social-political forces that have shaped it. This CLR was also informed by the 1994 Cultural Landscape Inventory, Phase 1 prepared by Shaun Eyring of the former Philadelphia Support Office. The Cultural Landscape Inventory (CLI) is part of a national program to identify, analyze, and document cultural landscapes throughout the National Park Service. The CLI for Independence NHP helped to highlight the importance of Independence Square and draw attention to its need for repair.

CULTURAL LANDSCAPE DESCRIPTION

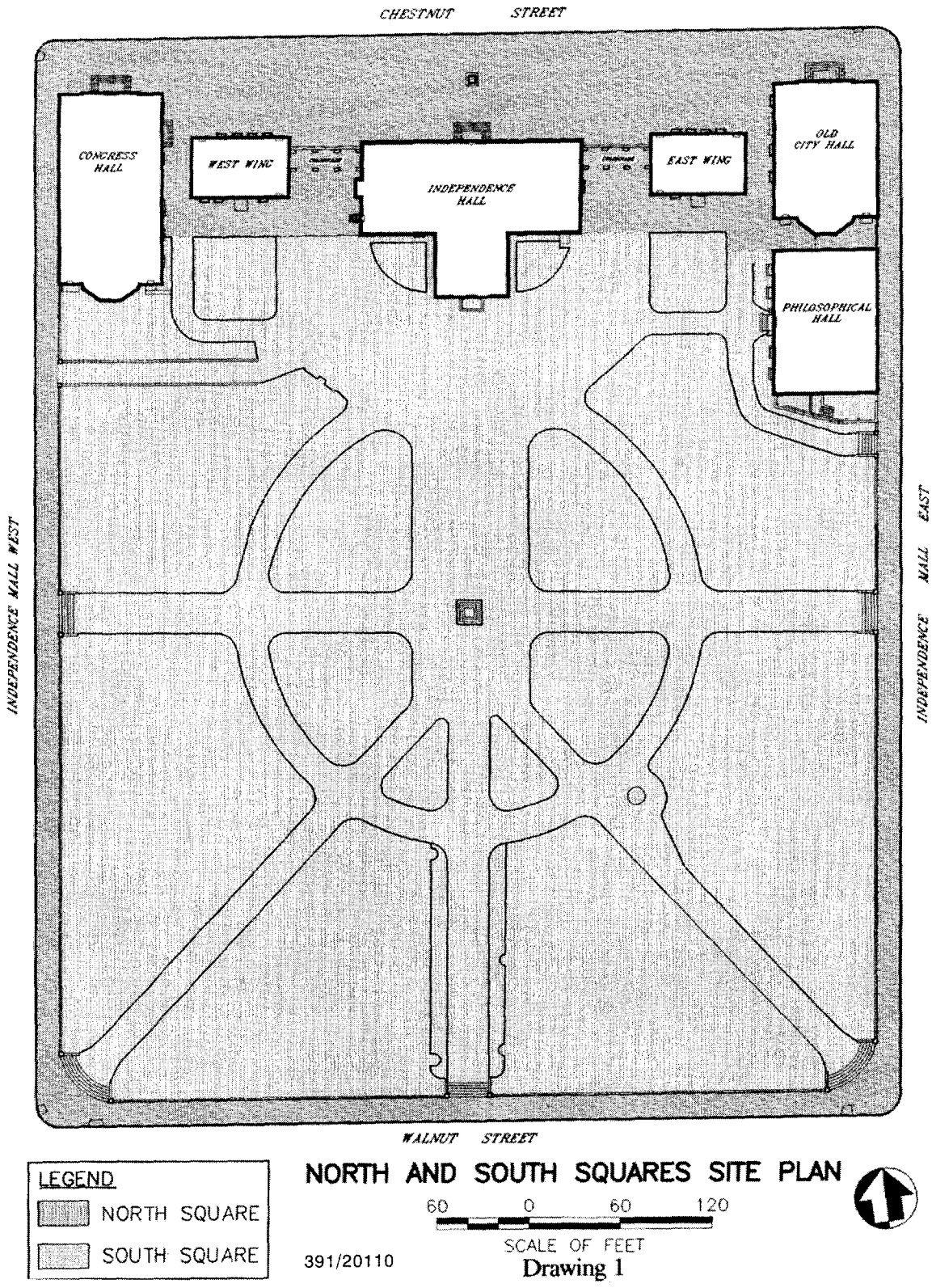
The "State House Yard" as a historical place-name, referred to that area lying south of the "State House." Today we know the State House as Independence Hall, and Independence Square has come to be understood as the entire city block. This includes the frontage on Chestnut Street, that has a distinctly different character and use from that portion of the block south of Independence Hall. For descriptive clarity, this report recognizes these two different areas.

The area fronting on Chestnut Street, the perimeter sidewalks and the brick paving apron surrounding Independence Hall and its associated buildings has been labeled the "north-square." This area has an open quality and functions as a setting for the buildings and as a transition area for pedestrians. In this report, the perimeter brick sidewalks along Fifth, Walnut and Sixth Streets will be discussed as part of the north square. The remainder of the block, inclusive of the grove of trees and flagstone pedestrian plaza and walkways south of Independence Hall will be referred to as the "south-square." The south square is removed from adjacent city traffic and noise, and features a high tree canopy, a sense of enclosure, flagstone walks, lawn and benches. (See drawing 1.)

METHODOLOGY

Volume One of the this CLR will consist of the final version of the *Independence Square Historical Narrative*, prepared by historian Toogood. Volume Two, included here and following this introduction, is comprised of five chapters. Chapter One is a chronological overview of site history. Chapter Two evaluates the historical significance and integrity of the square, including a discussion of the current National Register status, pertinent additional historical contexts, and appropriate periods of significance. Chapter Three of this report describes the individual landscape features, including an assessment of current conditions, feature background and evolution, and concluding with their role in defining landscape character. Chapter Four addresses the treatment of the landscape, drawing on the rationale of the *Secretary of Interior's Standards for the Treatment of Historic Properties* in selecting a recommended treatment approach for Independence Square. Chapter Five develops a schematic design for the treatment of the square, its phasing and priorities.

In addition to focusing on treatment, this report serves as a compendium of information relating to the evolution of Independence Square. As such, this report's appendices contain information pertinent to site history, ongoing management and maintenance.



Drawing 1: North and South Squares Site Plan

The public grounds set aside in 1736 have been marked by 260 years of American history. The story told by this important landscape is a multi-faceted narrative highlighted by the creation of our country's founding documents. This ongoing story includes people — both the people writing the documents and those affected by their words. These words contain ideas that have inspired many generations to memorialize the people and events associated with our nation's founding, leaving us today sifting through layer upon layer of artifactual remnants.

Out of the sifting, this report will not propose depicting Independence Square at a fixed point in its layered past. The process of preparing this cultural landscape report has led to the examination of many treatment alternatives. Having worked through these alternatives, this report will attempt to guide the square toward an appropriate future, a future respectful of the square's rich history. This has led to the recommendation of "rehabilitation" as the appropriate treatment strategy for the square.

The overlapping layers of history and significance present within this treasured property requires this report to consider details that the colonial assembly of 1736 could not have foreseen.

The end result, while not as brief as the assembly's early directives, does however share in the assembly's early ambitions. It is hoped that this cultural landscape report will provide long-term guidance to present and future stewards of Independence Square, helping to insure that the "said ground shall...remain a public open green and Walks forever."

ENDNOTES

1. As quoted in *Historic Philadelphia*, 7-8. Assemblymen cited this passage again in 1762 while authorizing the enlargement of the state house yard.

2. Edmund N. Bacon, "Design of Cities," MIT Press: Cedar Grove, New Jersey, 1969, 217.

3. *Pennsylvania Archives, Eight Series, V. 3, Votes and Proceedings of the House of Representatives of the Province of Pennsylvania*, 2163.

4. GMP, 15, paragraph IV.

CHAPTER 1: INDEPENDENCE SQUARE HISTORICAL SUMMARY

HISTORICAL SUMMARY

Independence Square has come to be understood as comprising the entire city block, encompassed by Chestnut and Walnut Streets and Fifth and Sixth Streets. However, prior to 1825, historical documents refer to both "State House Yard" and alternately, the "State House Garden" as simply the ground lying to the south of the Pennsylvania State House. This fact implies that historically, there have been two distinct sub-areas in what we now refer to as Independence Square — the area to the south of the Independence Hall, and the area north of the buildings, fronting onto Chestnut Street.

This section aims to briefly summarize the patterns of use and development at Independence Square over three centuries. For convenient reference, major headings and physical changes have been highlighted in **bold** type. This chapter has been summarized from the historical narrative prepared by Anna Coxe Toogood for Volume One of the *Cultural Landscape Report for Independence Square.*

HISTORIC PERIODS

Overview
- South Square: State House Yard
- North Square: Chestnut Street Forecourt

The Colonial Period
- State House Buildings, Wall and observatory
- State House Grounds

Samuel Vaughan Landscape, 1785-1874
- The Design
- Evolution of the Architectural Plan
- Alterations for Safety and Convenience
- Forecourt Modifications, 1869-72

The Centennial Landscape: Planning for a Shrine,1875-1914
- Dixey Plan, 1875-76
- Centennial Plan Modified

American Institute of Architects Landscape Redesign, 1914-1950
- A Design to Harmonize the Square
- Tree Plantings and Flagpole Additions, 1919-1937

National Park Service, 1951-Present

OVERVIEW

South Square: State House Yard

During the Colonial period the Commonwealth of Pennsylvania purchased (1730-1770) the land now known as Independence Square as the site for a new state house. The grounds were set aside as a public open walk and green (1736) and enclosed with a seven foot high wall (1740,1770). By the time of the American Revolution, the colonial legislature had completed the large brick state house, with office wing buildings on its east and west sides and a committee room on its southeast.

From the outset in 1732, the Pennsylvania Assembly wanted the grounds leveled in order to lay out walks and plant trees to make the surroundings "more beautiful and commodious." In 1736 they reserved the yard behind the state house as a "public open green and Walks forever," specifying that no other buildings be erected there. Finances and politics delayed the execution of the intended landscaping until after the American Revolution.

Three major landscape plans have been completed on Independence Square's yard since the close of the American Revolution:

- 1785-87 the Pennsylvania Assembly authorized Samuel Vaughan to design and lay out the first designed landscape for the State House yard south of the public buildings (drawings 2 and 3).
- 1875-76 the city redesigned the entire square for the Centennial of the Revolution, retaining some key elements of the original layout, as well as several design changes that had been introduced over the years (drawing 4).
- 1915-16, the AIA, in cooperation with the City of Philadelphia, prepared and carried out the most recent large-scale design modification during an extended period of restorations on Independence Square (drawing 5).

The National Park Service has retained the AIA design changes on the south side of the Independence Hall complex, but has also placed shrubs at the entrances and replaced pebblestone with exposed aggregate concrete paving along the central walkway south of the Barry Statue.

North Square: Chestnut Street Forecourt

The wide plaza fronting on Chestnut Street has traditionally been treated separately from the landscaped yard to the south of what was formerly known as State House complex. This "front yard" for the State House served as the primary entrance to the building as well as yard or square lying to the south. This forecourt served as a safe and mud-free place for pedestrians to promenade along Chestnut Street. Trees are known to have been first planted here in 1821.

In 1974, the National Park Service completed a restoration of this area to its circa 1790s appearance, based on period images and current archeology. The street plaza's appearance during the early national period, however, has not been completely established. The documentation lacks detail and the pictorial evidence does not always match up with the archeology. Consequently, the current interpretation of the sidewalk layout had to be based

VAUGHAN PERIOD PLAN 1785–1811

20 0 20 40

SCALE OF FEET

NOTE

TREE CANOPIES SHOWN ON THIS DRAWING ARE INTENDED TO ILLUSTRATE RELATIONSHIPS AND THE GENERAL WOODED NATURE OF THE SITE RATHER THAN EXACT LOCATIONS AND SIZES OF TREES.

SOURCES

1. HISTORY RESEARCH FILE
2. BIRCH PRINTS
3. ENGRAVING IN COLUMBIAN MAGAZINE, SEPTEMBER 1790
4. BENJ. DAVIES' MAP OF 1794
5. HILL'S MAP OF 1796
6. ARCHEOLOGICAL FIELD NOTES
7. NATIONAL PARK SERVICE HISTORICAL RECORD 1732–1959

Drawing 2

BRICK SIDEWALK

OLD CITY HALL CONSTRUCTED 1790–1791

PHILOSOPHICAL HALL CONSTRUCTED 1786

VAUGHAN'S SERPENTINE WALKS EXTANT 1787–1875

GRAVEL WALKWAYS

7' HIGH BRICK WALL

WATER PUMP

EAST WING 1736–1812

ARCADE 1791–1812

COMMITTEE ROOM 1752–1812

STATE HOUSE ROW

INDEPENDENCE HALL CONSTRUCTED 1732–1748

TOWER CONSTRUCTED 1750–1753

STEEPLE REMOVED 1781

DOUBLE ROWS OF TREES LINED THE CENTRAL WALKWAY

GRAVEL CENTRAL WALKWAY

20' TALL PEDIMENTED GATE 1769–1812

IRON GATE

STAIRS

CHESNUT STREET

WALNUT STREET

CLOCK 1751–1812

STEPS 1732–1812

WEST WING 1736–1812

CONGRESS HALL CONSTRUCTED 1787–1789

ADDITION CONSTRUCTED 1793

391/20111

PRE-CENTENNIAL PERIOD PLAN 1812-1874

20 0 20 40

SCALE OF FEET

NOTE

TREE CANOPIES SHOWN ON THIS DRAWING ARE INTENDED TO ILLUSTRATE RELATIONSHIPS AND THE GENERAL WOODED NATURE OF THE SITE RATHER THAN EXACT LOCATIONS AND SIZES OF TREES.

SOURCES

DRAWING, HISTORICAL RECORD, 1732-1969, NHP-IND 2653-SHEET 5 OF 8.

DRAWING, ANONYMOUS, NHP-IND 10,004, c. 1867-1872.

DRAWING, G.H. JONES, ATLAS OF PHILA, 1874.

DRAWING, HEXAMER & LOCHER MAP OF 1860.

DRAWING, J.C. SIDNEY, MAP OF PHILA, 1849.

DRAWING, F. DRAYTON, MAP OF PHILA, 1833.

DRAWING(S), WM. ALLEN, SURVEY OF PHILA, 1830, 1828.

ILLUSTRATIONS AND HISTORIC PHOTOGRAPHS, DRAFT HISTORICAL NARRATIVE, CLR FOR INDEPENDENCE SQUARE, TOOGOOD, 1996.

Drawing 3

391/20112

CENTENNIAL PERIOD PLAN 1875–1914

20 0 20 40

SCALE OF FEET

NOTE

TREE CANOPIES SHOWN ON THIS DRAWING ARE INTENDED TO ILLUSTRATE RELATIONSHIPS AND THE GENERAL WOODED NATURE OF THE SITE RATHER THAN EXACT LOCATIONS AND SIZES OF TREES.

SOURCES

DRAWING, HISTORICAL RECORD, 1732–1969, NHP–IND 2653–SHEET 6 OF 8.

DRAWING, A.I.A. NHP–IND 10,011, PLOT PLAN SHOWING PROPOSED IMPROVEMENTS TO INDEPENDENCE SQUARE, 1914.

DRAWING, A.I.A., PLAN SHOWING NEW WALL FOR INDEPENDENCE SQUARE, 1914.

DRAWING, ERNEST HEXAMER & SON, INSURANCE MAPS OF PHILA., 1915.

ILLUSTRATIONS AND HISTORIC PHOTOGRAPHS, DRAFT HISTORICAL NARRATIVE, CLR FOR INDEPENDENCE SQUARE, TOOGOOD, 1996.

Drawing 4

CHESTNUT STREET

DOUBLE ROW OF TREES ALONG THE CHESTNUT STREET FRONTAGE

HORSE FOUNTAIN 1869–c.1942

FLAGSTONE PAVEMENT 1875

GEORGE WASHINGTON STATUE ORIGINALLY PLACED 1869

STATE HOUSE ROW

OLD CITY HALL CONSTRUCTED 1790–1791

PHILOSOPHICAL HALL CONSTRUCTED 1786

WOODEN FENCE BEFORE 1860

EAST WING EXTANT 1736–1812 RECONSTRUCTED 1898

ARCADE RECONSTRUCTED 1898

MILLS WINGS DEMOLISHED 1898

IRON FENCE AFTER 1832

INDEPENDENCE HALL CONSTRUCTED 1732–1748

TOWER CONSTRUCTED 1750–1753

STEEPLE REMOVED 1781 RECONSTRUCTED 1828

BLUESTONE WALKS 1875

CIRCULAR PLANTING BED

BARRY STATUE 1907

BLUESTONE WALKS AND CURBING INTRODUCED SOUTH OF INDEPENDENCE HALL 1876

SONS OF TEMPERANCE FOUNTAIN INSTALLED 1876

DIAGONAL PATH AFTER 1866 RECONFIGURED 1875

STAIRS

GROUND TERRACED TO MEET LOWERED ONE FOOT HEIGHT OF WALL

LOW GRANITE WALL WITH MARBLE COPING 1876–1915

WALNUT STREET

HORSE FOUNTAIN 1869–c.1942

WEST WING EXTANT 1736–1812 RECONSTRUCTED 1898

ARCADE RECONSTRUCTED 1898

MILLS WINGS DEMOLISHED 1898

IRON FENCE AFTER 1832

EXTENSION 1872

CONGRESS HALL CONSTRUCTED 1787–1789

ADDITION CONSTRUCTED 1793

JUDGE'S PRIVY EXTANT 1862–1912

DRIVEWAY AFTER 1872

NEW DISTRICT COURT CONSTRUCTED 1866

BLUESTONE WALKS 1875

DIAGONAL PATH AFTER 1866 RECONFIGURED 1875

STAIRS

LOW GRANITE WALL WITH MARBLE COPING 1876–1915

391/20113

A.I.A. PERIOD PLAN 1915–1951

20 0 20 40

SCALE OF FEET

NOTE

TREE CANOPIES SHOWN ON THIS DRAWING ARE INTENDED TO ILLUSTRATE RELATIONSHIPS AND THE GENERAL WOODED NATURE OF THE SITE RATHER THAN EXACT LOCATIONS AND SIZES OF TREES.

SOURCES

DRAWING, HISTORICAL RECORD, 1732–1969, NHP–IND 2653–SHTS. 7 OF 8, & 8 OF 8

DRAWING, A.I.A., NHP–IND 10,011, PLOT PLAN SHOWING PROPOSED IMPROVEMENTS TO INDEPENDENCE SQUARE, 1914.

DRAWING, A.I.A., PLAN SHOWING NEW WALL FOR INDEPENDENCE SQUARE, 1914.

DRAWING, BUREAU OF CITY PROPERTY, PLAN OF INDEPENDENCE SQUARE: SHOWING EXISTING CONDITIONS AS OF 1/1/1926.

ILLUSTRATIONS AND HISTORIC PHOTOGRAPHS, DRAFT HISTORICAL NARRATIVE, CLR FOR INDEPENDENCE SQUARE, TOOGOOD, 1996.

Drawing 5

391/20114

on inconclusive but suggestive information from period records—bills and acts of the Assembly and Birch prints—as well as National Park Service archeological investigations in 1965 and 1974.

COLONIAL PERIOD

The State House Buildings, Wall and Observatory

Prior to 1730, the Pennsylvania Assembly rented quarters in private property. Considering their accommodations inadequate and often inconvenient, the Assembly threatened to move to Chester, Pennsylvania. Philadelphia's leaders proposed instead that the legislators build a state house in the city. The Provincial Assembly agreed to the idea and purchased lots on Chestnut Street between Fifth and Sixth Streets, at what was then the edge of town. Construction included the removal of two houses mid-block on Chestnut Street, one of which temporarily served as the legislators' seat while they waited for the State House to be constructed. The building project continued for over twenty years and included two **wings buildings (1736)** with connecting **arcades (1743), a bell tower and steeple (1753), and a committee room** for the Pennsylvania Assembly **(1753)**.

With the security of these costly improvements in mind, the Assembly also built a **brick wall** around the property's south, east and west sides in **1740-41**. Following the purchase of lots on the south end of the block, the wall was extended in **1770** to enclose the entire block south of the State House (figure 2).

In **1769**, the American Philosophical Society constructed a wood framed **astronomical observatory** in the yard to record the transit of Venus, a significant scientific event for the colony. The observatory remained in the yard throughout the American Revolution, but its exact location has never been established, despite prodigious research and several archeological digs.

Nineteenth century accounts by eyewitnesses at the first public reading of the Declaration of Independence on July 8, 1776 recalled that John Nixon read from a "raised platform" (Heinrich Miller) or "awful stage in the State House Yard" (John Adams). Historians assumed these recollections referred to the 1769 observatory. Other period records, however, suggest that the Assembly kept a temporary stage in the basement of the State House (Independence Hall) which was brought out for public meetings and special occasions such as the reading of the Declaration of Independence.

Early walls and gates into the square are documented by later graphic prints of the 1790s by Charles Willson Peale, James Peller Malcom and William Birch. These views depict the early high brick wall, much like others surrounding church, public and private properties in the city. At the center of the Walnut Street end stood a massive, pedimented gate (figure 3).

The State House Grounds — Planning for a Landscape Design

After purchasing the Chestnut Street lots, the Pennsylvania Assembly in 1732 immediately expressed their intent to improve the grounds by ordering that "the Ground...be leveled,

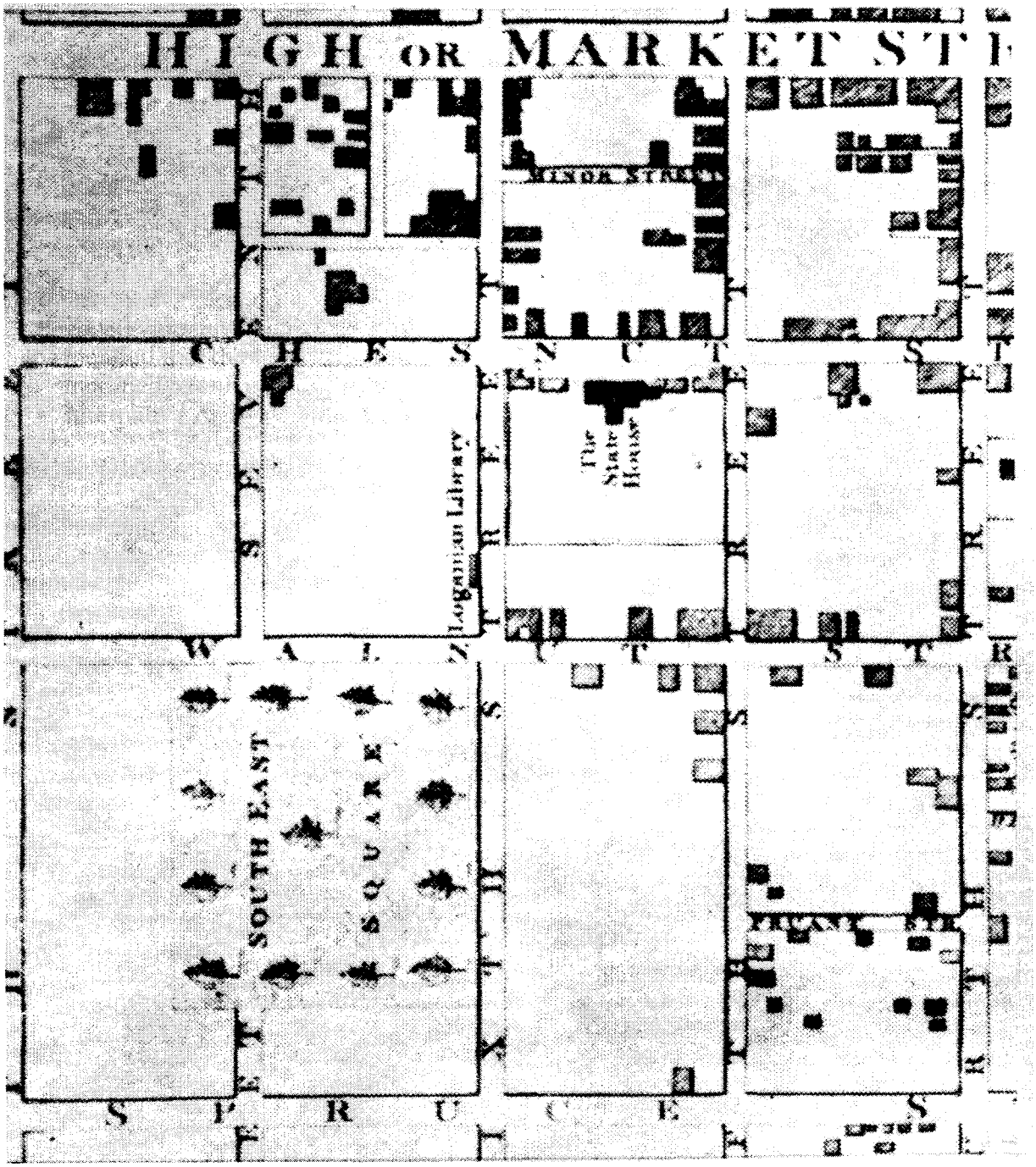


Figure 2: Benjamin Eastburn, A Plan of the City, 1996. Surveyor General Eastburn's published map recorded the city's progress and that of the State House Square, albeit inaccurately. Note that the wall depicted along the southern boundary of the yard is not correct. By 1770 the Pennsylvania Assembly had enclosed the entire block with a 7-foot high brick wall, having purchased title to the Walnut Street lots during the 1760s.



Figure 3: William Birch, State House Garden, 1800. Birch's view of the Walnut Street gate from the yard side of the block is corroborated by a James Pellar Malcom image of the Walnut Street jail that shows its exterior side. This image suggests the popularity of the public walk, where Windsor benches along the central allee offer a place to enjoy the shade under the elm trees which have grown tall since planting 15 years earlier.

and enclosed with a board fence in order that Walks may be laid out, and Trees planted, to render the same more beautiful and commodious."

In 1736, a year after the Assembly moved into their still unfinished building, they voted that "no part of the said ground lying to the southward of the State House as it is now built be converted into or made use of for erecting any sort of buildings thereupon, but that the said ground shall be enclosed and remain a public open green and Walks forever." Towards these ends, the Assembly only managed to partially level the yard with fill during the years 1737-8 and 1771-2. Nevertheless, this early legislation provided the inspiration for the eventual form that Independence Square would assume over the subsequent two centuries.

Politically troubled times had an effect on the Assembly's plans for improving the State House grounds. First the French and Indian War, then the American Revolution intervened. During these decades the yard served as a place for political rallies, a military parade ground, supply depot, as well as a space for such utilitarian needs as **privies**. Two frame **sheds** that appear in Charles Willson Peale's illustration of the State House Square in 1777 probably housed the cannon and artillery kept on the square cited in Pennsylvania's war records.

SAMUEL VAUGHAN PLAN, 1785-87

At the close of the Revolutionary War, the new state legislature agreed to Governor Dickenson's proposal that the landscape plans for the yard go forward. In 1783, the Assembly voted to revive the February 1736 act that reserved the yard as a "public open green and Walks forever" and authorizing that the grounds be laid out "according to the original design."

Samuel Vaughan was chosen to direct the landscaping efforts. Vaughan was a new immigrant from England by way of Jamaica, where he owned a plantation. A close friend of Benjamin Franklin, Vaughan and his family moved within important social and professional circles and institutions, such as the American Philosophical Society and the Philadelphia Agricultural Society.

The square's landscape design and the construction of the American Philosophical Society's Philosophical Hall both began in 1785. Vaughan supervised and promoted both projects. Landscape plans have not survived to document the exact design or the layout of plantings and paths, however newspaper accounts, illustrations of the period, bills for work and materials help to give a good picture of the landscape design. Early 19th century maps and National Park Service archeology have also confirmed the location of the gravel serpentine path around the perimeter of the yard (figure 4).

The Vaughan Design

The Vaughan design for the State House yard featured a thirty foot wide gravel central walk bordered by a double rows of elm trees on either side. This central walk ran between the pre-existing pedimented gate in the Walnut Street wall and the tower entrance to the State House. A gravel **serpentine path** meandered around the perimeter of the square amidst trees, artificial mounds, shrubs and flower beds of the Romantic landscape style typical of the period. The double rows of elms on either side of the central walk created a **formal allee** entrance approach, lined up on axis with the State House. This feature was intended to reinforce the dignity aspired to by a seat of government. Vaughan received 100 elms from Captain George Morgan in Princeton for the landscaping of the yard, but also unsuccessfully attempted to turn the square into a botanical garden featuring all the trees native to North America.

Vaughan completed landscaping the State House yard in 1787 and soon began the task of drawing up a landscape plan of George Washington's grounds at Mount Vernon. An admirer of General Washington, Vaughan's plan of Mount Vernon documented the improvements Washington already had in place at the time Vaughan visited his estate. The serpentine path layout and the selection of plantings at Mount Vernon are similar to Vaughan's State House yard design. Washington indicated, by correcting a mistake Vaughan made on the plan, that he may have been Mount Vernon's designer, and through his association with Vaughan, may also have contributed to the State House yard landscape design.

During Philadelphia's capitol city decade of 1790-1800, Vaughan's landscape served as a pleasant and shady walk for legislators, diplomats, judges, civil servants as well as the public at large. It was perhaps the only public walk of its kind in the new nation, and possibly the

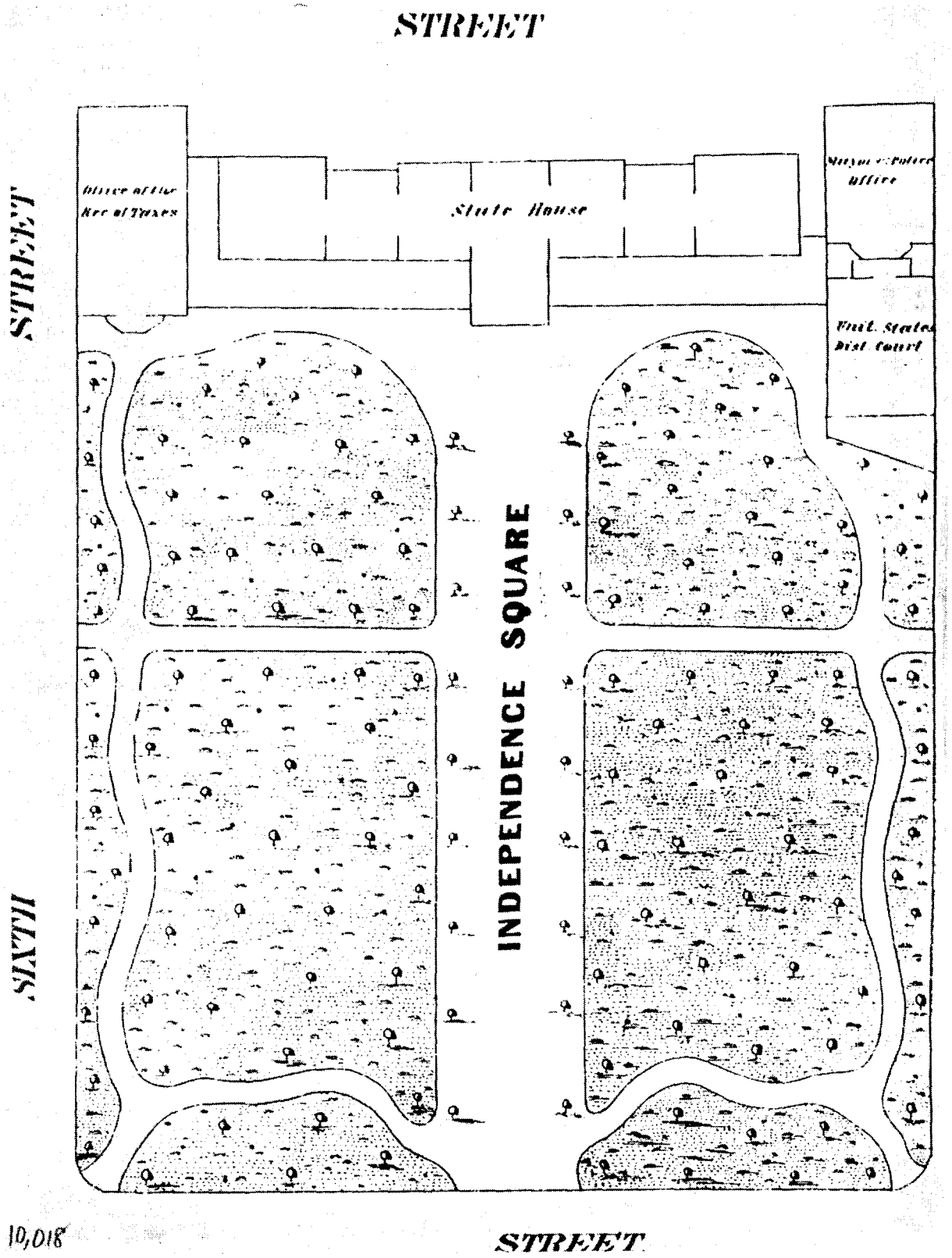


Figure 4: Ground Plan, no date — pre 1866. This drawing shows the wide central walkway and the meandering walks around the perimeter of the square laid out by Vaughan. From Independence NHP photostat file, #10,018.

safest place in Philadelphia to enjoy the benefits of exercise and fresh air, increasingly promoted as a way to health.

William Birch included two images of the State House yard in his collection of published views of Philadelphia. These are the only known period illustrations of the Vaughan landscape, executed after fifteen years of maturation (1799 and 1800). A privy on the east side of the yard, behind the East Wing, appears in the view "Back of the State House" (figure 5).



Figure 5: William Birch, Back of the State House, 1799. Birch's prints are among the best graphic images of 18th century Philadelphia, but because they were a commercial enterprise, these views only show beautiful, clean scenes. Nevertheless, they are our only period pictorial record of the State House yard as landscaped by Samuel Vaughan in 1785-1787. Note the watchboxes, curved walk and trees along the central allee. Note also visiting Native Americans, as well as women and children among the genteel visitors to this early public park. The delegates to the Constitutional Convention in 1787, the members of the House and Senate of Congress, and the Supreme and District Court judges mingled here with the state and city officials, whose offices also were on the square.

Evolution of the Architectural Plan

The county and municipal buildings on the original plan for the square finally were completed after the Revolution. The **County Courthouse**, erected in **1787-89** at the corner of Sixth and Chestnut Streets, was offered to the U.S. Congress for its use during the decade 1790-1800, when Philadelphia served as the nation's capitol. The new **City Hall** building at Fifth and Chestnut Streets reached completion in **1791** and during that year the Supreme Court of the United States began sharing the use of the Mayor's Courtroom and its Circuit and District Courts made use of a second floor courtroom (figure sequence 6 through 13).

Alterations for Safety, Convenience and Patriotism, 1811-1874

Although the state and federal governments moved off the square in 1799-1800 respectively, the municipal and county offices remained to occupy the corner buildings. In 1802, Charles Willson Peale expanded his museum into the long gallery on the second floor of the State House and until 1818 served as the paid superintendent of the State House grounds.

Philadelphia suffered regular summer epidemics in the 18th century which medical practitioners attributed to seasonal conditions. In **1791** citizens petitioned the State to lower the yard's high brick walls and surmount them with a palisade fence to improve the air flow and dispel unhealthy stagnant air that pedestrians inhaled while walking along the square's adjoining streets. The State agreed in principle, but left the funding of this project up to private sources.

Twenty years later, in **1811**, the proposal to **lower the wall** was finally launched. The seven foot walls on Fifth and Sixth Street were lowered to three feet and surmounted with an iron palisade fence, a style then fashionable in Europe. **New entrance gates** to the yard were also added both on the Fifth and Sixth Street sides, just south of the buildings. In **1812**, the Walnut Street section of wall was given the same treatment, and the monumental pedimented gate was removed and replaced first with **temporary** gates. In **1824**, John Haviland completed **new gates** for the Walnut Street entrance (photo 1).

Philadelphia Councils took action to **preserve the State House Square** after the Pennsylvania legislature passed an act in **1821** authorizing the County Court of Quarter Sessions to lay out streets and alleys over public squares. Councils argued that the act should not apply to the State House Square since it had been set aside for the "recreation of the inhabitants" and for the promotion of the city's health.

The trees planted in the State House yard after the Revolution grew to maturity during the early 19th century, casting an ever deepening shade over the yard. On the Chestnut Street walk in **1821**, the city planted a **double row of shade trees** (linden) thought to be healthful to pedestrians walking in the hot summer sun (figure 14). Andrew Jackson Downing marveled at the yard's large plane or buttonwood trees during a visit to the square in the 1840s. Within this crowded and challenging urban environment, it was not unusual for the aging trees to die or become unsafe. As failing trees were removed, in their places the city continued to plant other trees to maintain a tree canopy over the yard and Chestnut Street walk. The shaded yard, at the same time, sometimes required resodding of the struggling turf.

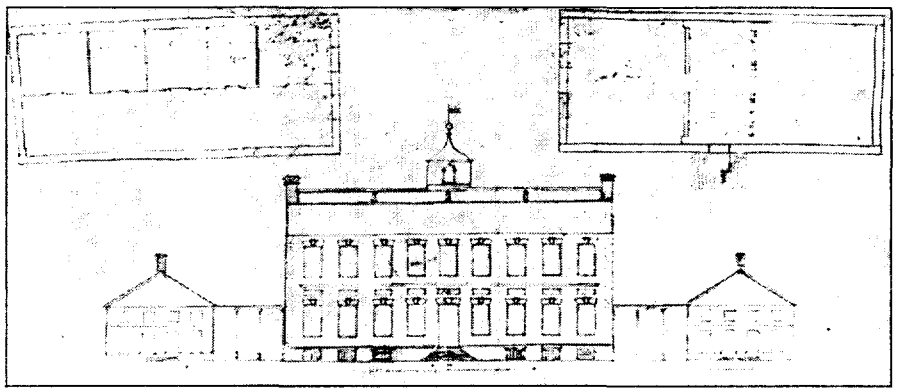


Figure 6: Plan of the State House, 1732, attributed to Andrew Hamilton. The elevation of the main building shows it substantially as first built. A meager plan like this seems inadequate to people of the 20th century, accustomed to meticulous architectural drawings. Detailed drafts had not been introduced in the 1700s; rather, the master builders in the field were a combination of what we would call today architects, engineers and workmen. On them lay the burden of supplying the technical details between the simple sketch and the finished structure. Drawing courtesy Historical Society of Pennsylvania; from Historical Handbook #17, by Edward M. Riley, National Park Service, 1975.

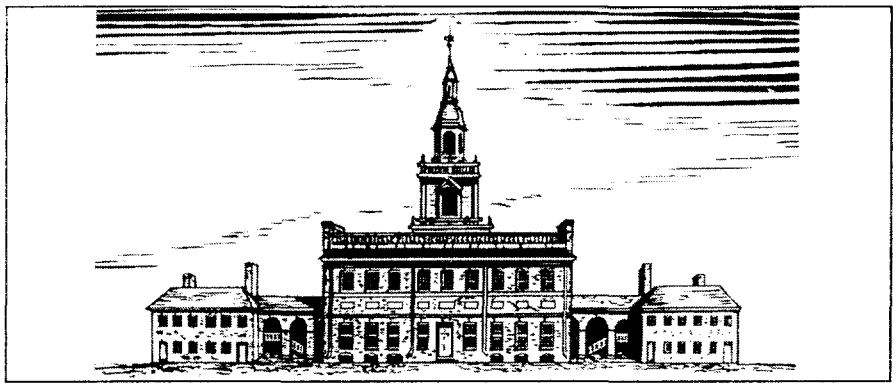


Figure 7: The State House as it appeared in the colonial period, showing the wings, connecting "piazzas" with stairways, and original steeple. As first designed and built, the State House had no tower or steeple. These were added around mid-century, and a bell was ordered for the steeple in 1751. This State House bell, which was hung in the new addition in 1753, has since become renowned as the Liberty Bell. This drawing and the next six are modern illustrations based on 18-century written descriptions and pictures. From Historical Handbook #17, by Edward M. Riley, National Park Service, 1975.

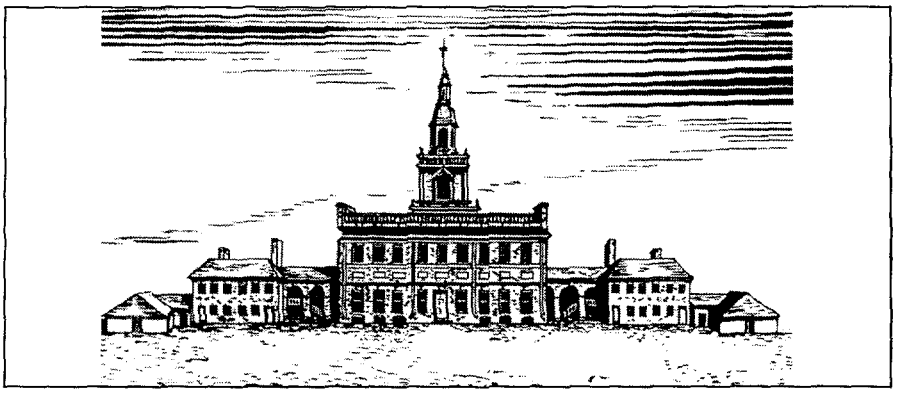


Figure 8: The State House, about 1776, with wing buildings adjoined by wooden sheds. These were used during the Revolutionary War to store ammunition and, perhaps, to shelter Native American delegations at various times. The wings were used as office space and, in part, even as living quarters for the doorkeeper and his family. From Historical Handbook #17, by Edward M. Riley, National Park Service, 1975.

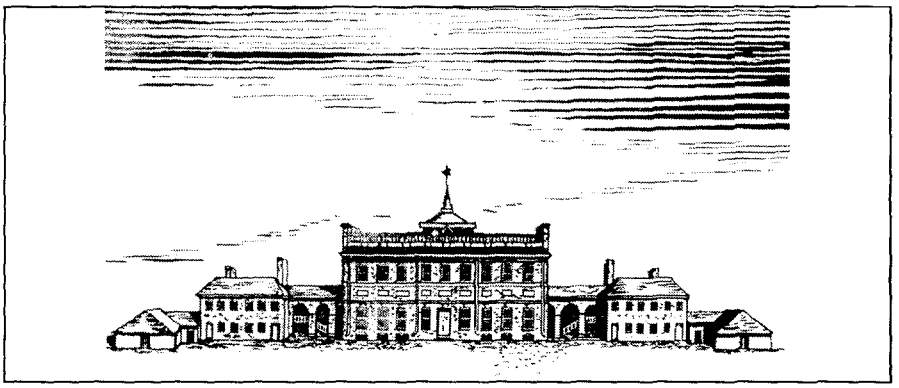


Figure 9: By 1773 the steeple had rotted to a dangerous extent. It had become so weak that ringing of the bell was avoided for fear of toppling the steeple. Though the Pennsylvania Assembly had long intended to remove this badly decayed structure, it was not done until 1781 — the year of the British surrender at Yorktown, Virginia. After the steeple was removed, the brick tower was covered with a hipped roof, shown here, and the bell hung just below it. From Historical Handbook #17, by Edward M. Riley, National Park Service, 1975.

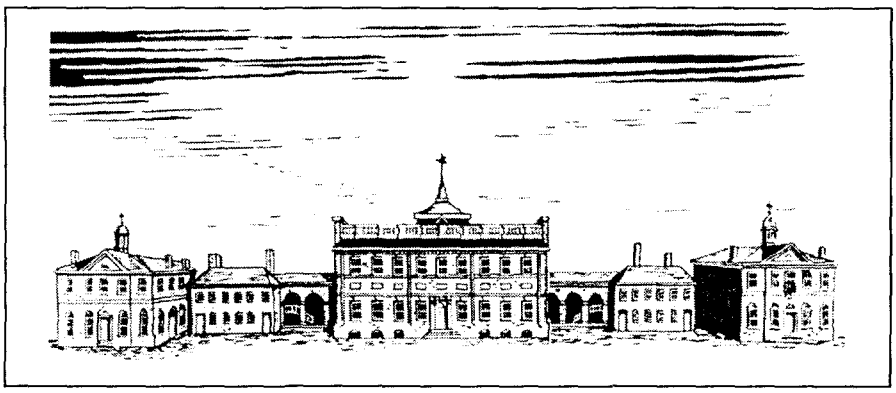


Figure 10: The wooden sheds were removed some time after 1787 to make way for the City Hall on the east (left) and the County Courthouse on the west (right). Begun in 1790 and 1787 and completed in 1791 and 1789, respectively, these buildings fulfilled the original plan of a city governmental center as conceived by Andrew Hamilton. With the establishment of the temporary Federal capital in Philadelphia, from 1790 to 1800, City Hall became the seat of the U.S. Supreme Court and the County Courthouse became Congress Hall. From Historical Handbook #17, by Edward M. Riley, National Park Service, 1975.

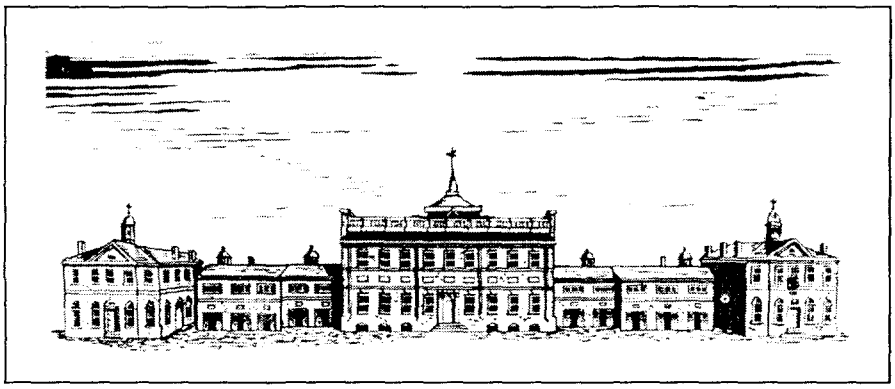


Figure 11: In 1812, the Pennsylvania Legislature permitted the City and County of Philadelphia, which occupied the State House after the Federal and State capitols moved from Philadelphia, to pull down the east and west wings and erect in their places "modern" office buildings, designed by the architect Robert Mills. These buildings were used for the purposes of municipal administration and storing records. Because of the burden on public funds, the State House was dangerously close to being torn down at this time. It was spared that fate when the city bought the group of buildings and the square from the Commonwealth of Pennsylvania in 1818 for $70,000. From Historical Handbook #17, by Edward M. Riley, National Park Service, 1975.

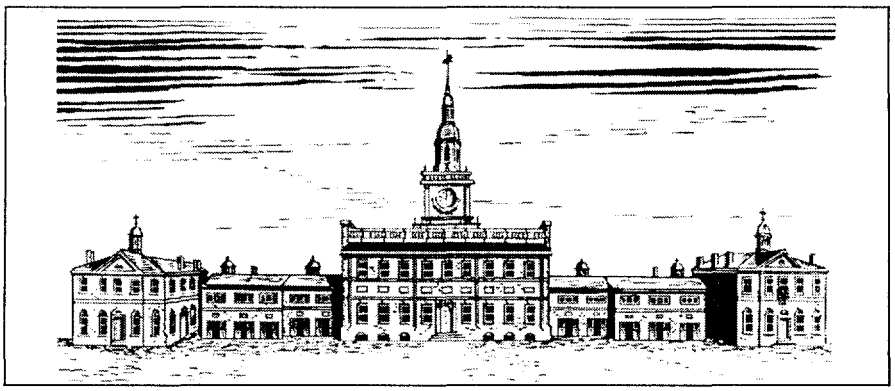


Figure 12: Lafayette's visit in 1824 started a move to lift the State House from neglect, directing attention to it as a shrine. In line with this new attitude, attempts were made to restore the building to its original appearance. The first important step in this direction was the restoration of a steeple to the building. William Strickland, the famous American architect, designed a new steeple which was constructed in 1828. The new steeple was not an exact replica, but followed the general design of its predecessor removed in 1781. The principal deviations were the installation of a clock in the steeple and the use of more ornamentation. From Historical Handbook #17, by Edward M. Riley, National Park Service, 1975.

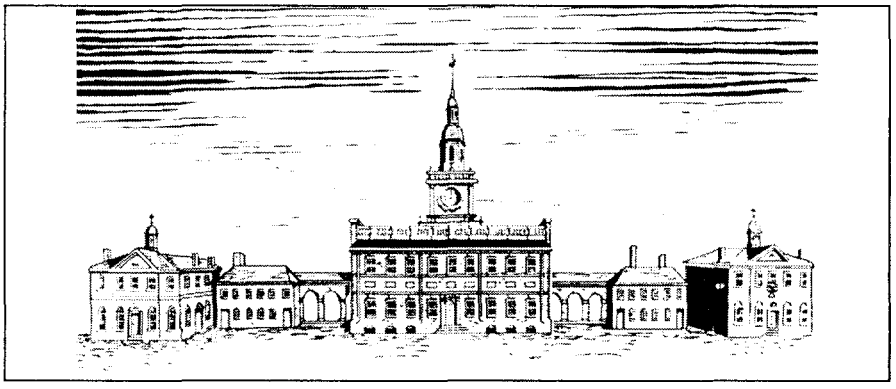


Figure 13: Although various alterations were made in the mid-18th century to the interior of the State House — now generally called Independence Hall — appreciable exterior changes were not made until just before 1900. Between 1896 and 1898, as part of the city's general program for the restoration of Independence Square to its appearance during the Revolution, the Mills buildings were replaced by wings and arcades which resembled those of the 18th century. The buildings have retained this appearance to the present day. From Historical Handbook #17, by Edward M. Riley, National Park Service, 1975.



Photo 1: Independence Square from Walnut Street, pre 1866. This wide angle photograph taken before the beginning of construction of the new courthouse in 1866 shows the modified Vaughan plan during its last decade. In the distance the walk across the park laid out in 1835 is clearly discernible. The gravel serpentine walks coming from the east and west meet the central allee, which is elevated with two 30-foot-wide stone steps. Several replacement trees line the central walk. Note the colonial lamps, and the series of stools along the border of walks. The stools were an effort to discourage lingering and lounging in the square. H. W. Sellers Collection, #5952.

As the city grew and expanded westward, the importance of the square's open space began to diminish. Originally the only public walk in the city — and perhaps in the colonies — the yard gradually lost favor as a healthful and fashionable place to stroll and recreate. In part, this change in attitude was due to the opening of Southeast Square (today's Washington Square) as a public walk and lavishly landscaped public grounds during the first two decades of the 19th century. At this time transportation in the city was also improving, making public gardens at the Fairmount Waterworks and the Laurel Hill Cemetery both accessible and popular. City residents increasingly found their recreation outside city limits.

The State House yard's popularity waned in the early 19th century and disreputable characters began to loiter there. This issue may have prompted improvements in sanitation. When a citizens' petition in **1831** complained that the State House privies were "highly offensive," the city and county councils authorized the construction of **new privies below ground and arched over**. At the same time they contracted for an **iron palisade fence across**

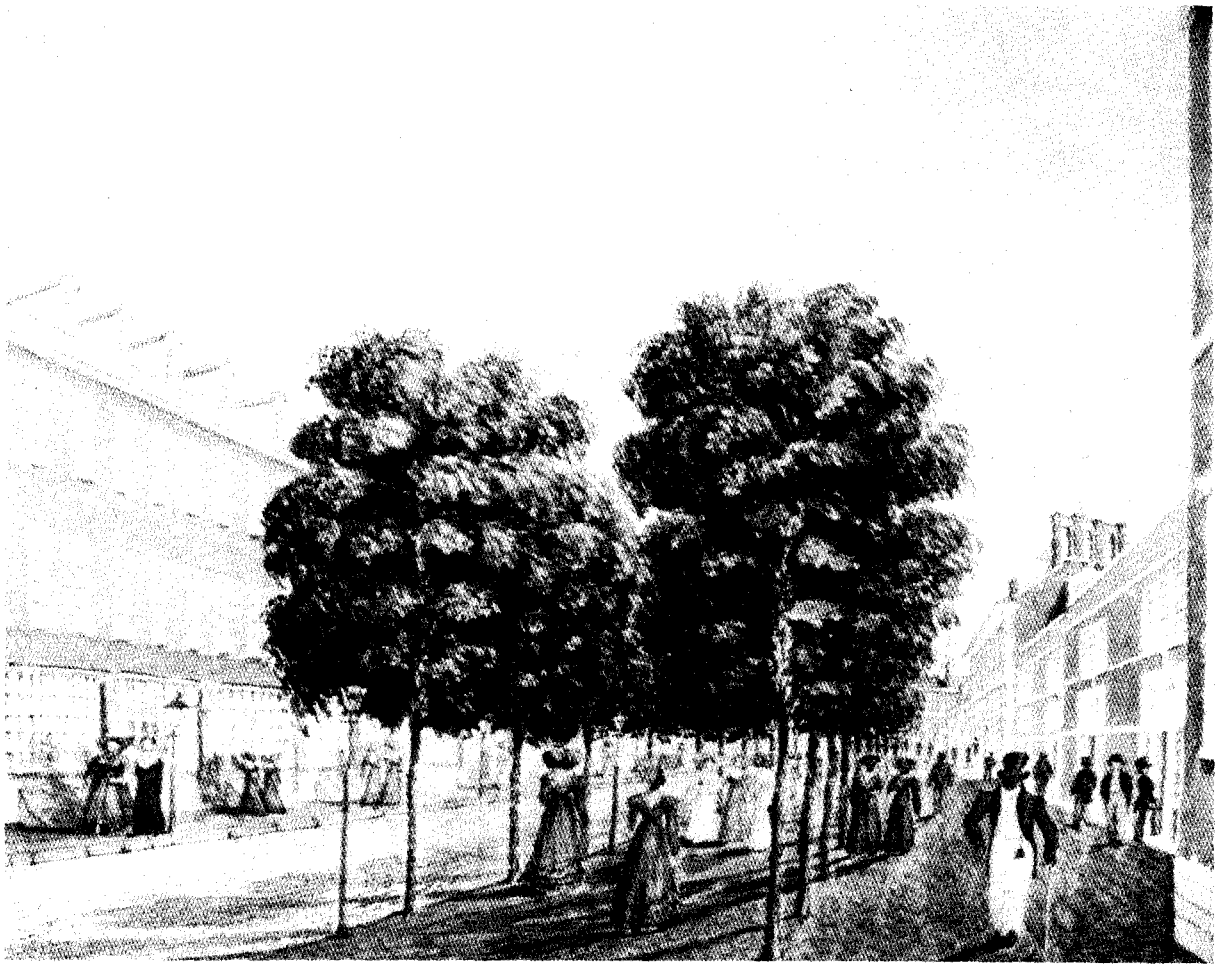


Figure 14: State House at Philadelphia, 1825. By the 1820s Philadelphia's most fashionable center had moved west to the State House Square neighborhood and beyond. Note the double row of trees on the Chestnut Street walkway. The linden trees pictured here were planted in 1821, the same year when the water pumps were removed from the plaza. From Independence NHP files, #7346.

the yard just south of the State House (1832), presumably to secure the buildings and privies at night. Improved lighting for the square offered another measure of safety. The city replaced the old oil lamps with **gas lamps** in **1853,** an improvement that increased the square's illumination at night.

Fire protection was an ongoing concern for the State House Square. Mounting concern for the safety of the municipal records during 1811, led to the replacement of the original wings and arcades with **fireproof offices (1812).** These offices were located on either side of the State House, as designed by architect Robert Mills. A fire house built on Fifth Street in 1817 across from the square offered added protection. In **1820,** Frederick Graff, the city's engineer for the Fairmount Water Works, supervised the laying of pipes from the reservoir into the yard to fit two new **fire hydrants** on the south side of the building complex and the following year the city ordered the original Chestnut Street **pumps replaced** with two fire hydrants close to the curb. When fires damaged the roofs of both the County Courthouse and City Hall soon after, the city expanded the protection by adding a fifth hydrant in the yard.

These fire preventatives evidently sufficed until **1875** when the city placed **two large fire hydrants** in front of Independence Hall, presumably in preparation for the grand celebration planned for the centennial of the American Revolution. Philadelphia atlases for the late 19th century indicate the locations of fire hydrants and water lines (see Jones atlas for 1874 and 1897 by Hexamer Sons) in and on the periphery of the square. Clearly, the city aimed to be prepared.

Beginning in the early 20th century, fire drills at Independence Hall became a regular event as documented by numerous photographs. With the installation of fire alarm devices, the Independence Hall complex in the 20th century achieved the maximum fire security possible.

Making the Yard Convenient

When the federal and state governments left Philadelphia, the State House Square changed to accommodate new uses and occupants. These modifications were undertaken largely to make the square more convenient for city dwellers. The city by mid-century was modifying the access to the square to make commuting for pedestrians more convenient. For workers headed across the square to their jobs, new **entrances** were opened at the Walnut Street corners in **1837**, and short **diagonal paths** joined these entrances with the perimeter serpentine path. In 1838, **chains and posts** were installed at various places along the paths to discourage informal shortcuts across the square's thin turf.

In **1845**, additional **entrances** were added mid-block on Fifth and Sixth Streets, connected by a **new gravel path** across the center of the square. In 1858, one writer described the yard as having eight different gates, including the entrance through the State House central hall. By the **1860s** historic photographs and plans show that the city had also provided **diagonal paths** from the corner entrances to the center of the square, to give a more direct means for pedestrians to cross the square (figure 15).

An ongoing issue at the square was the pressing need for **office space** to accommodate the ever expanding city and county administration. A 1838 City Council proposal to buy out the county's interest in the State House Square in order to locate additional offices there was turned down. The County Board proposed in 1847 that new buildings for county courts and jury rooms to be located on the south end of the square. When the Pennsylvania Assembly authorized the new construction and the removal of all buildings on the square deemed insufficient, the Select and Common Councils voted against the act.

The office space issue became critical in 1845 after the City and County incorporated. Nevertheless, in 1848-49, architects Thomas U. Walter, John Haviland, and Napoleon Le Brun all submitted plans for new county buildings on Independence Square. Once again, none were approved. Attorneys Horace Binney and Thomas Petit then argued in favor of a new courthouse.

In 1857, Councils ordered a feasibility study to locate courts and a general post office at the south end of the square. Why they finally chose a site instead on Sixth Street, just south of the County Courthouse, is unknown but probably involved the convenience of adjoining lots.

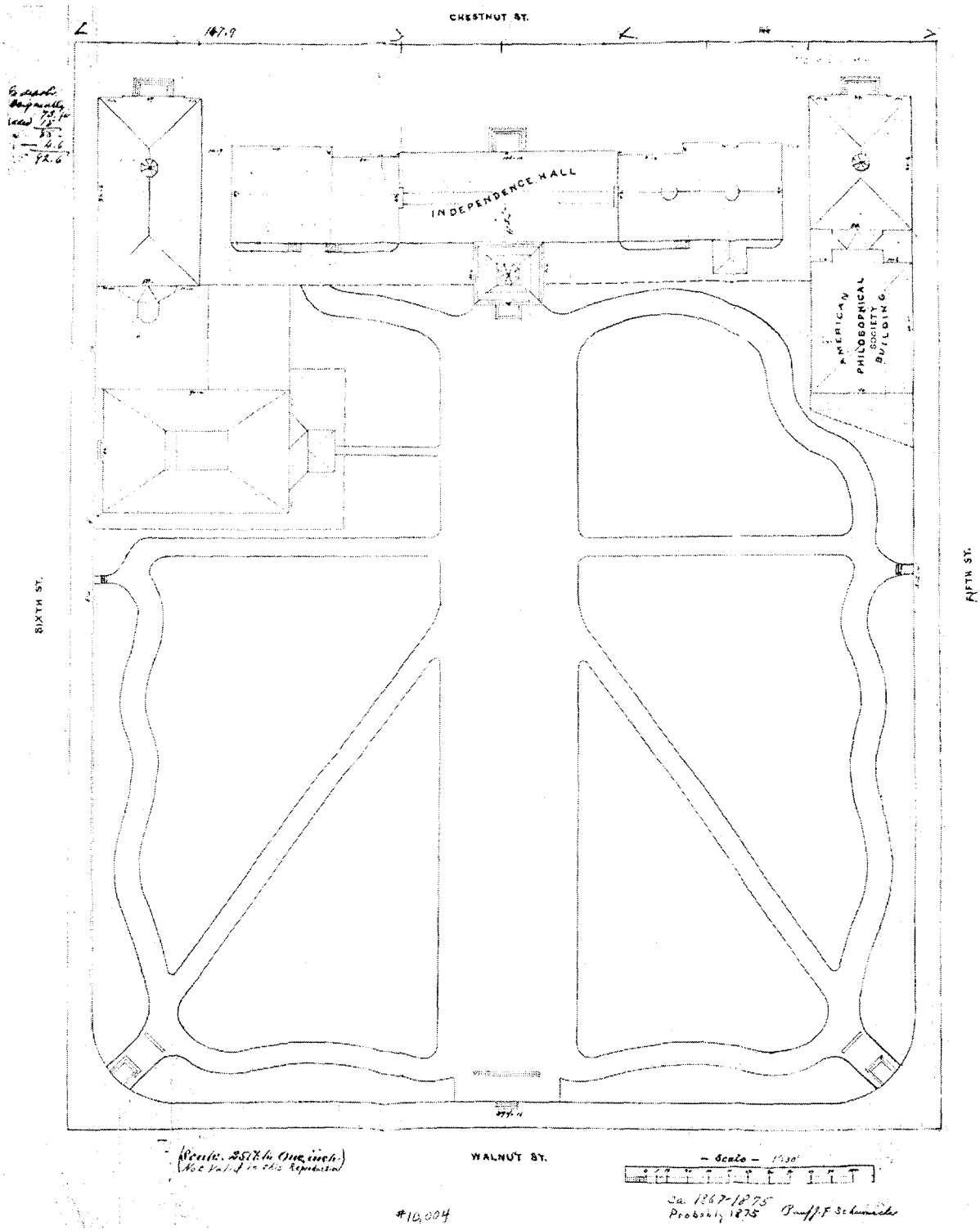


Figure 15: Plan of Independence Square, c. 1867-1872. This detailed plan shows the new courthouse, completed in 1867, the diagonal walks to the center of the square, the palisade fence still enclosing the south facade of the buildings, and the remaining sections of Vaughan's 1787 serpentine paths. The building additions between Congress Hall, Old City Hall and the Mills buildings (erected c. 1872) do not appear, giving the plan a five-year date span. From Independence NHP photostat file, #10,004.

While planning for the new courthouse in **1862**, the City and County erected a two story addition onto the south end of the County Courthouse for a **judges' retiring room** and extended the **underground drainage** from the south side of Independence Hall to the Walnut Street sewer. The **new courthouse** was finally constructed during **1866-67** (photo 2).

When Philadelphians voted in 1870 to build a new city hall at Penn Square, several interim changes were needed at Independence Square to ease existing overcrowding while the new government complex was under construction. In **1872**, the city built a new **enclosed** public urinal in the yard and provided more office space by building **additions** to the Mills buildings that closed the remaining openings in the Chestnut Street building facade.



Photo 2: Independence Square and the New Courthouse, c. 1895. This photograph recorded the square before the demolition of the Mills buildings (1898) and New Courthouse (1901) which cleared the way for the city's restoration program. Note that the Centennial landscape retained a section of the former palisade fence south of Congress Hall. Beyond the fence is the Sixth Street driveway and a narrow set of entrance stairs to the yard similar to the entrance on Fifth Street just south of Philosophical Hall. These entrances likely were the ones added when the city lowered the 7-foot-high colonial wall (1770) and surmounted it in 1811 with the then fashionable palisade fence. Acc. no. 3687.95 Independence National Historical Park Museum Collection with permission from Atwater Kent Museum.

Patriotic Measures and Additions

The future of the State House square had been threatened as early as 1813 when the Pennsylvania legislature proposed its sale to pay for a new state capitol in Harrisburg. City leaders countered by offering to purchase the block to preserve healthful open space in a crowded urban setting and to preserve in tact the "hallowed ground" where "some of the most important public acts" in the nation had transpired. The city took ownership when the sale was finalized in 1818.

In spelling out their reasons to purchase the square, the city acknowledged its commitment to preserving the historical values represented there, and to the 1736 act of the Pennsylvania Assembly that reserved the area south of the State House as a public open green and walk forever. In 1819, members of the city's committee for the improvement of the State House yard defended the preservation of the yard, arguing for keeping its general plan and arrangement because, "Time has given to them a character of sanctity which forbids that they should be touched..." Patriotic sentiment led to the city's renaming the square **Independence Square in 1825**, a year after General Lafayette's emotionally charged visit to the "Hall of Independence." However, while recognized for its historic associations, the square continued to attract conflicting proposals for change. In 1835, the Philadelphia City Council and the press promoted the recommendation to locate the new state capitol on the square. In contrast, patriotic voices first advised in 1837 that city hall be moved to Penn Square and all buildings except Independence Hall be removed from the property.

Patriotism also led to early historic restoration efforts. The original steeple soaring above the State House had been removed for safety reasons in 1781 because of decay. In 1828, following Lafayette's enthusiastic return to the United States, the city and county hired William Strickland to design a replacement steeple for Independence Hall on the lines of the original, making it one of the nation's first examples of historic preservation.

By mid-century, Independence Square had won strong public support through patriotic interest in this place as the home of the American Revolution. With this sentiment in mind, the city endorsed the 1851 proposal to build a monument in the center of the yard and establish a national museum in Independence Hall. However, the divisive years of the American Civil War discouraged the construction of a grand monument to such a fragile union. During the Civil War the square became the hub for Pennsylvania's Union recruitment, helping to give a more national attachment to the site for its historical associations (photo 3).

The conflict between those who wanted to develop versus those who wanted to preserve Independence Square climaxed in 1869 when the city opened a design competition for a new city hall complex to be located there. As recommended earlier, the plan proposed removal of all structures except Independence Hall. Architect John MacArthur's drawings survive for massive Second Empire structures along three sides of the square that would have very much resembled the present City Hall complex on Penn Square. Adamant public protest to the plan, driven by a patriotic sensibility, led to the city-wide vote in 1870 that designated Penn Square as the site for a new city hall building.



Photo 3: Camp Independence, 1863. This wonderful view of the Civil War recruitment station at Independence Square shows the yard's deep shade and dramatic central allee during the 19th century. The lamps for the entrance gates have been removed and not replaced, an indication that funds were not available for such maintenance. From Independence NHP files, #12,480.

North Square Modifications, 1869-73

In **1869**, a **statue** of George Washington by sculptor J. A. Baily was donated to the city by the Washington Statue Fund, a group representing the Philadelphia Public Schools. The statue had been commissioned for the U.S. Sanitary Commission Fair in 1864 during the Civil War. The city placed the Baily statue in the center of the Chestnut Street walk, directly in front of the Independence Hall, and erected an iron paled fence around it (photo 4). During the same time, the city installed two highly ornamented granite **horse watering fountains** that had been donated by the Philadelphia Fountain Society. These fountains were placed along the Chestnut Street curb on either end of the block. In **1870**, the city made subsurface improvements to the drainage from the State House to the Chestnut Street curb, resurfacing the brick north square with large **flagstone paving**.

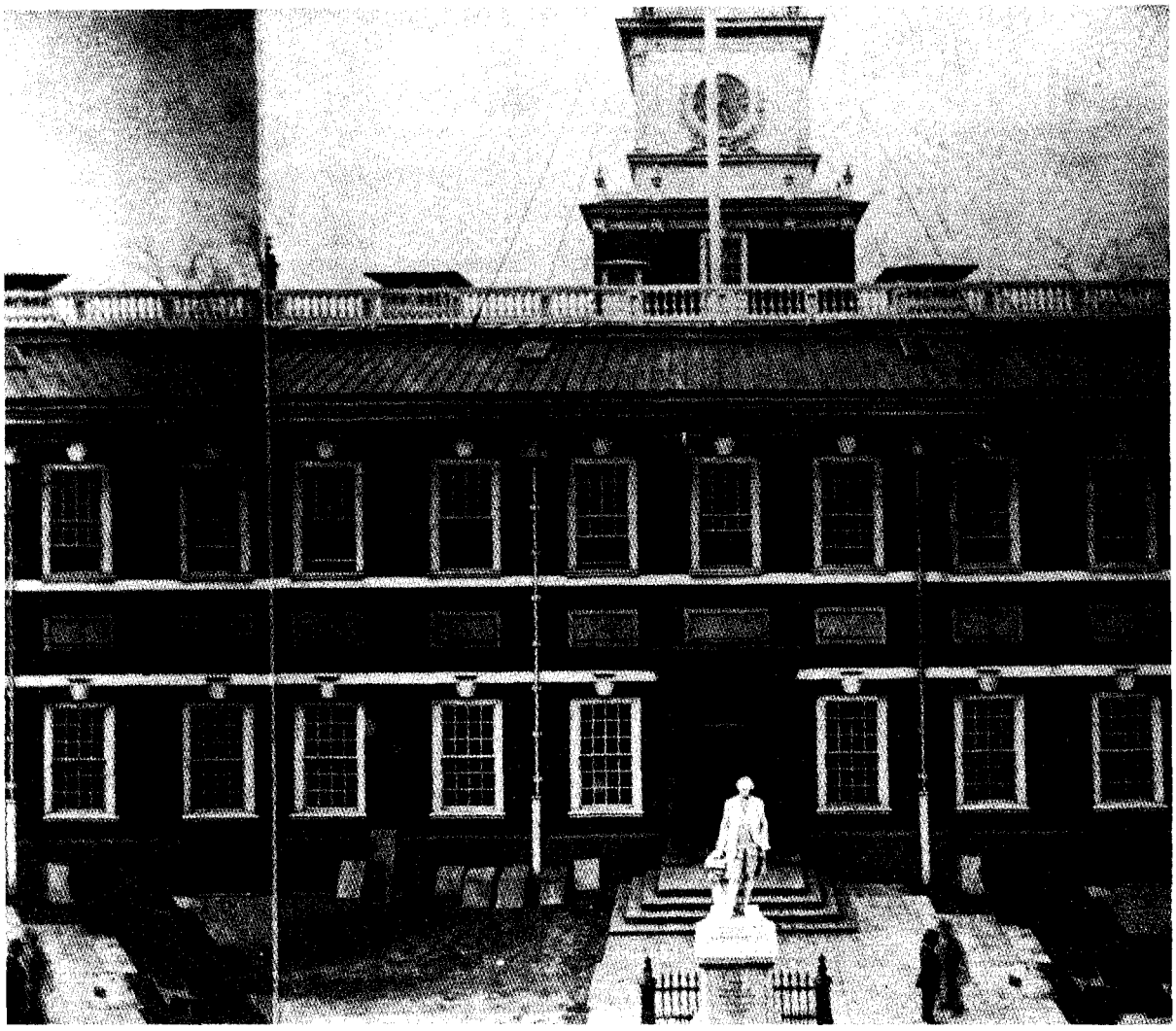


Photo 4: Laying flagstone on the Chestnut Street walkway, 1870. This stereo opticon view captured the work in progress to repave the Chestnut Street frontage with flagstone, replacing the earlier brick surface. Also visible in this view is the recently installed statue of George Washington and surrounding fence. From Independence NHP files, #33.

THE CENTENNIAL LANDSCAPE: PLANNING FOR A SHRINE

In voting to move city hall to Penn Square, it appeared that the City of Philadelphia had effectively protected Independence Square from future development, and plans were soon underway that included Independence Square in preparations for the Centennial Exposition of the American Revolution.

In 1873, Joseph Leeds submitted the first plan to improve Independence Square for the nation's centennial. Competing proposals followed from Thomas P. Gordon and other unidentified parties. Gordon's plan has survived, showing a pattern of radial walks much like the plan eventually adopted by the city. However, Gordon proposed removing all buildings from the square except Independence Hall, and relied heavily on monumental sculpture — statues of the 56 signers of the Declaration of Independence — to furnish the

landscape. Leeds' written plan on the other hand had advocated the planting of 56 trees in the yard in memory of the signers.

Dixey Plan, 1875

City Councils finally selected a **centennial plan** proposed by William F. Dixey, Chief of Bureau of City Property. Dixey's plan was described as effectively rendering the square "as a thoroughfare" for pedestrian traffic. Similar to the earlier Leeds plan, the scheme proposed by Dixey included paths laid out in a **radial design**. All paths met at the central grass plot intended for a grand patriotic monument which never came into being (figure 16).

According to Dixey's proposal, all the walks were laid in **flagstone**, both within the square and along its perimeter sidewalks. The design narrowed the original broad central path from Walnut Street to the Independence Hall tower entrance, interrupting the direct axiality of the original landscape with the installation of a central **circular grass plot** (photo 5).

The plan **widened** the Fifth and Sixth Street **entrances** at Walnut Street to thirty feet, bending the openings in the wall to meet the new curved granite stairs. The city **lowered the wall** to one foot in height, and finished it with marble coping. The soil behind the wall was graded to meet the new wall. The city also created **four new entrances** and provided **connecting paths** to the existing diagonal paths. **Two gas lamps** featuring facsimiles of the Liberty Bell were also furnished for either side of the entrances. The city minimized the loss of trees to half a dozen because of a public outcry for their retention as part of an historic landscape (photo 6).

Centennial Plan Modified

At the conclusion of the centennial celebration, the city agreed to the placement of the **Sons of Temperance Fountain** in the southeast diagonal walkway (photo 7). The Sons of Temperance had exhibited this fountain at Philadelphia's Centennial Exhibition in West Fairmount Park, and upon closure of the exposition in 1877, had arranged to move it to the square and provide for its maintenance.

Independence Square received colorful modifications in 1895-c.1902 when the city planted patriotic **flower beds** in the central and north-central grass plots. Spring bulbs planted in the shape of stars, the Liberty Bell, and "1776" appeared prominently (photo 8). The superintendent in charge of the square also added a variety of trees, all in keeping with the yard's long landscape tradition. Flowers perhaps distracted the eye from the debris that littered the yard after the city moved away from the square in **1895** and patriotic groups took charge of an effort to **restore** the buildings and grounds. With the city's permission, the Daughters of the American Revolution hired architect T. Mellon Rogers to direct restorations of Independence Hall. In order to accomplish this, the city **tore down later structural elements** of the row of buildings —the 1862 judges' retiring room, the 1872 office additions, and the 1812 Mills buildings. The **wing buildings and piazzas were reconstructed** in **1898**, although not accurately. At the same time, the city repaired the square's wall and flagstone walks, removing the **Liberty Bell Lamps**.

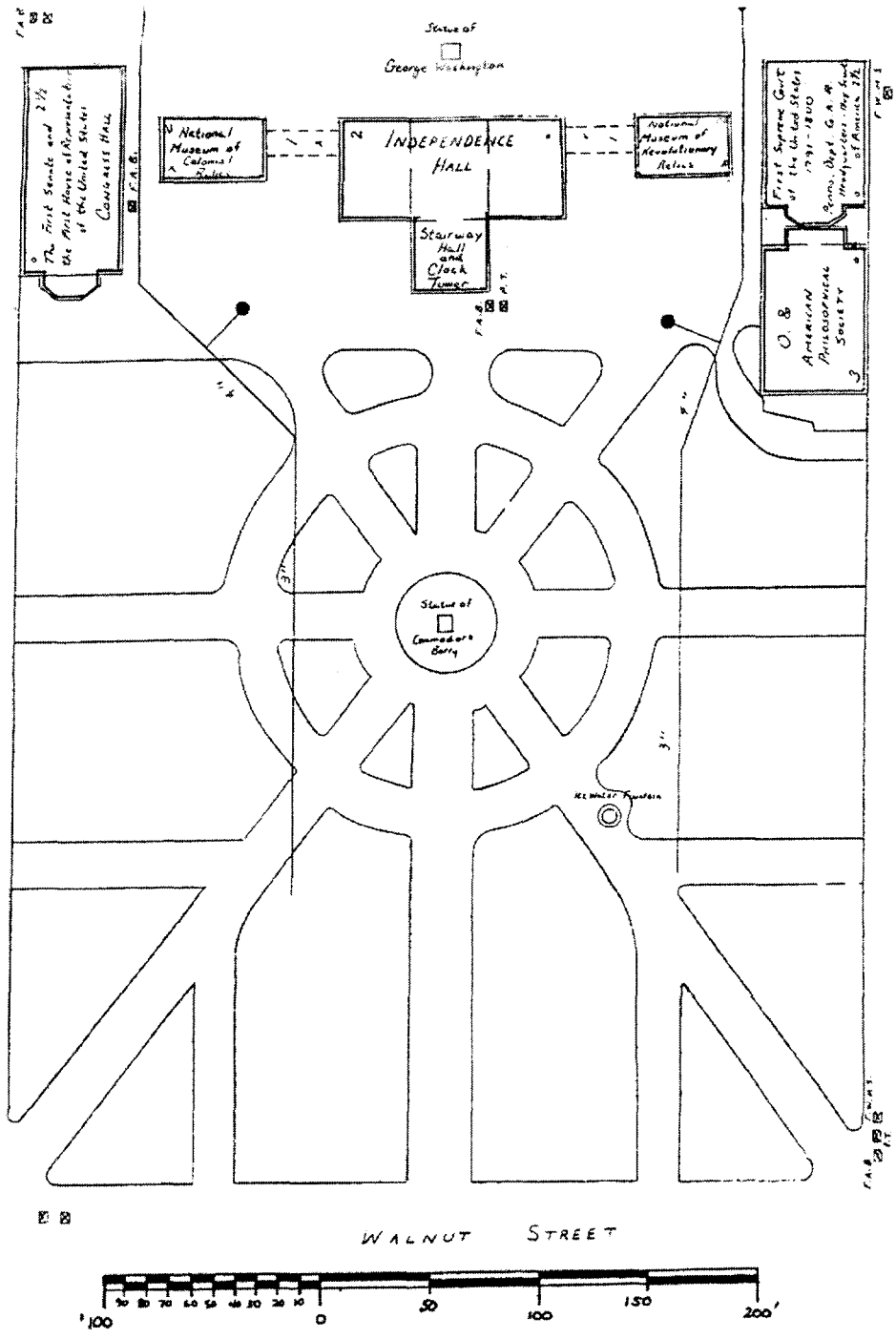


Figure 16: Ernest Hexamer & Son, Insurance Maps of Philadelphia, 1915. This detail from a fire insurance map shows the layout of the pathways which were part of the Centennial Plan for the Square before they were altered by the American Institute of Architects in 1915. This plan shows the redundant entrances to the square that would be removed later, and the radial organization which was retained. Also shown is the location of the Sons of Temperance Fountain placed on the site in 1877, and the more recent additions of the John Barry Statue in the center grass plot. This plan documents the conditions on the square just prior to AIA modifications as part of a larger restoration project that began in 1896 with the removal of the Mills buildings and the reconstruction of the wing buildings, indicated as museums on this plan. From Independence NHP files.



Photo 5: Independence Square looking north, c. 1883. In 1883 the city placed benches along the square's circle, suggesting the date for this photograph. Note the many telegraph wires crossing the tree line in the foreground, and the larger Victorian lamps more clearly defined in this view. From Independence NHP files, #9187.



Photo 6: Independence Hall from Walnut Street, F. Gutkunst, 1878. F. Gutekunst photographed many Philadelphia scenes at mid-century, especially Independence Square. This view records the new Centennial landscape. Note the low wall, entrance steps and lamps, the layout of the walks, the remnant of the tree-lined central allee interrupted by the planted circle, the apparent retention of the colonial-style lamps along the paths, and the Centennial Sons of Temperance Fountain to the right, along the diagonal path. Young evergreen plants are also visible spaced throughout the square.



Photo 7: Independence Square looking southwest, 1933. This later photograph clearly shows the location of the Sons of Temperance Fountain. Also visible in this view are benches with concrete supports that, along with earlier benches, remained on the square until the 1960s. From Independence NHP files, #34,136.



Photo 8: Independence Square in spring bloom, c. 1899. Taken after the restoration of the wing and arcade buildings in 1899, this view shows the central circle and fenced plots adjoining to the north filled with spring flowers. Note the newly placed incandescent light centered on the walk. From Independence NHP files, #1653.

Realizing the need for more authentic restorations at Independence Square, the Philadelphia Chapter of the American Institute of Architects (AIA) became involved with the restoration project during 1898. The AIA consulted and supervised the restoration effort for the following two decades. Part of the restoration program included the **removal of the Sixth Street Courthouse** in 1901, which further returned the grounds to historic appearances.

In the middle of this patriotic program to restore Independence Square to its 18th century appearance, a later historic association was also recognized. During 1903, the Grand Army of the Republic, Post 2, of the Department of Pennsylvania, placed a **bronze plaque** in the sidewalk pavement of Chestnut Street, commemorating president-elect **Abraham Lincoln's visit** of February 22, 1861 to Independence Hall. During his visit, Lincoln raised the thirty-four star flag above Independence Hall to mark the Kansas admission to the union of states (photo 9).

The **Friendly Sons of St. Patrick** showed their patriotic and civic awareness in **1907** by donating to the city a **statue** of Irish-born Commodore John Barry. The statue was placed in the circular grass plot in the center of the square, on the spot where the monument originally had been planned.

In **1910**, the city paid sculptor Samuel Murray to **copy the George Washington Statue** in bronze in order to move the original to the new City Hall at Penn Square.

AMERICAN INSTITUTE OF ARCHITECTS, 1898-1917

The American Institute of Architects worked closely with the city on the restoration plans and designs for Independence Square beginning in 1898, and on the whole, proved to be careful historic preservationists.

A Landscape Design to Harmonize the Square, 1914-1916

In December of 1914, the AIA completed a redesign of the centennial landscape which aimed to put the grounds in harmony with the Independence Hall group of buildings. Although the city had first intended to restore the square to its appearance during the , upon study of the problem, the AIA concluded that the proposed restoration was infeasible. Instead, as Horace Wells Sellers explained, the AIA proposed to **simplify** or **change** elements of the centennial landscape design to **harmonize landscape and buildings** (figure 17). These proposals and plans included adding a **brick apron** around Independence Hall, installing **new bollards and chains** along many paths, and **resurfacing** the existing Sixth Street driveway with **cobblestones**. The driveway was likely added to the square after the construction of the new courthouse in 1867. However, the earliest photograph of the driveway does not appear until 1895.

South of the Barry Statue, the AIA plan restored a sense of the original central walkway's 30-foot-width by adding **gravel borders** on either side of the flagstone surface. The plan also replaced the one-foot-high wall of the centennial design with a **four-foot high brick wall** patterned after the colonial wall surrounding nearby St. Peter's Church (figure 18). The plan **eliminated** the four redundant **entrances** introduced in 1875 as part of the earlier centennial design and returned the connecting paths to grass (photo 10). Finally, the AIA plan



Photo 9: President-elect Abraham Lincoln at Independence Square. This view documents a visit to Independence Square by Abraham Lincoln on February 22, 1861. During Lincoln's visit he raised a flag above Independence Hall to commemorate the admission of the state of Kansas into the Union. Note the size of the trees growing in front of Independence Hall at this time.

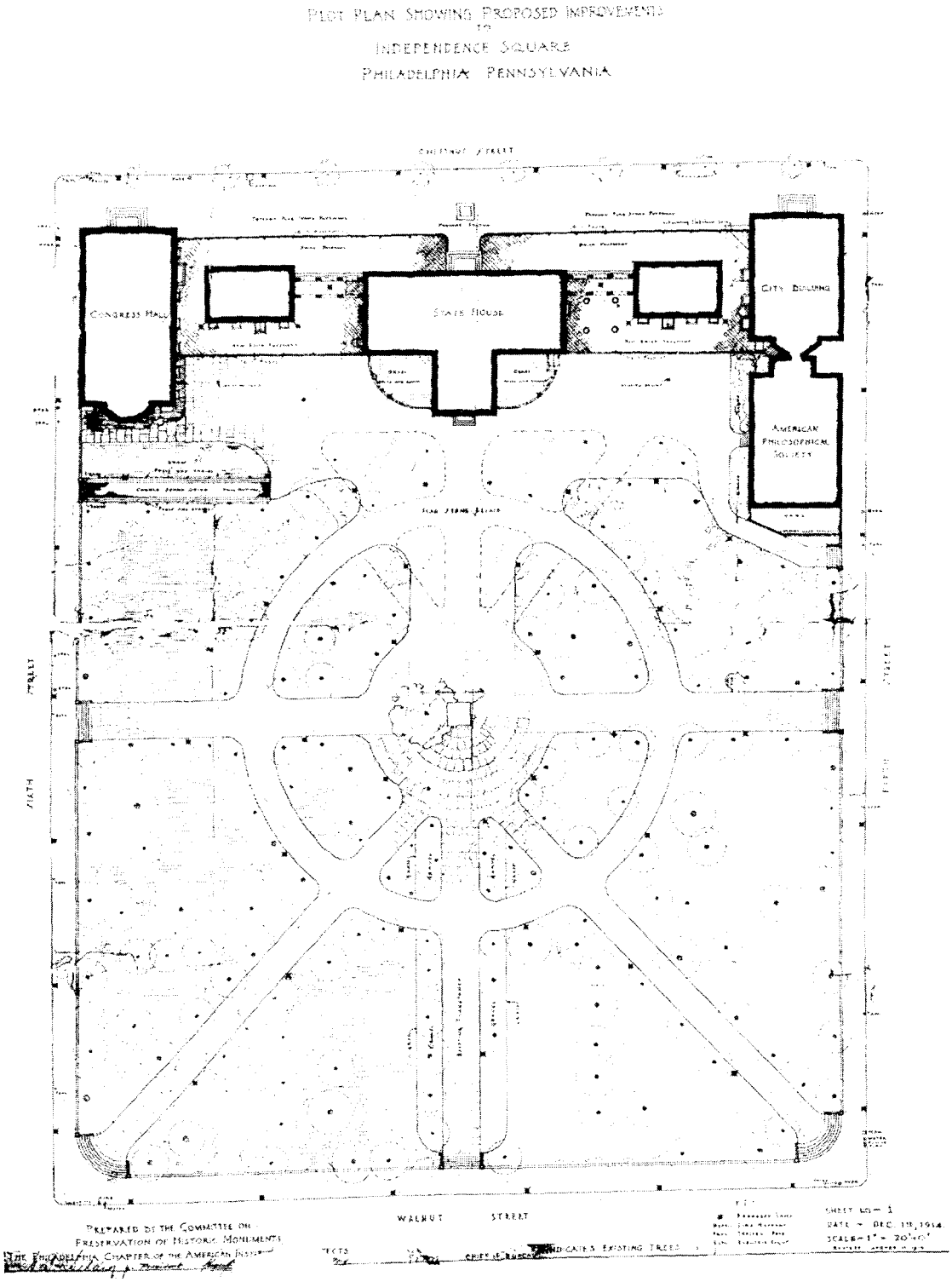


Figure 17: Plot Plan Showing Proposed Improvements to Independence Square, 1915. The American Institute of Architects prepared this 1915 plan on the eve of making their proposed design changes to bring the square "into harmony" with the historic buildings. The plan shows existing conditions and proposed changes to reduce the number of entrances and paths, while restoring the broad width of the axial central walk, a remnant feature of the original Vaughan landscape. From Independence NHP photostat file, #10,001.

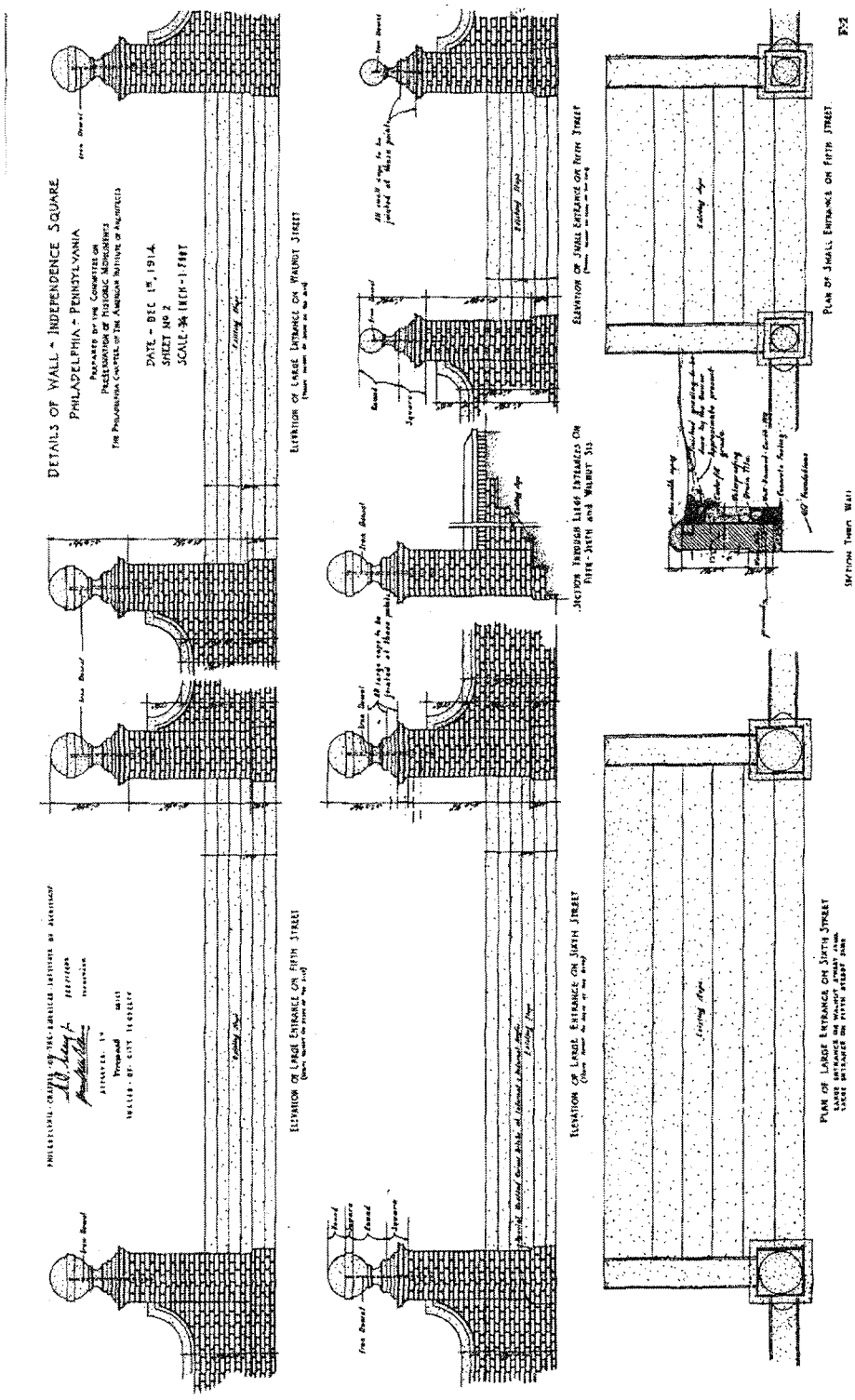


Figure 18: Details of Wall — Independence Square, Sheet 2, December 1, 1914. This sheet of drawings executed by the Committee on Preservation of Historic Monuments, part of the Philadelphia Chapter of the American Institute of Architects, illustrates proposed changes to be made to the perimeter wall and entrances to Independence Square. These details were modeled after existing 18th century walls that remained in Philadelphia.



Photo 10: Rebuilding Independence Square's Wall, 1915. The first part of the American Institute of Architects' redesign for Independence Square got underway in 1915 with the construction of a colonial-styled brick wall. The AIA also called for the removal of four redundant entrances near the corners of Fifth and Sixth Streets and Walnut Street. A group of workers stand in front of the wall at one of the former entrances. From Philadelphia City Archives.

provided a **new pedestal** for the Barry Statue and replaced the grass in the central circle with **flagstone paving** (photo 11).

Lighting for the square was one of the first elements studied by the AIA, yet was the last to be implemented. After much research and consideration, the new lamps were modeled after those designed by Benjamin Franklin for Philadelphia's streets in the mid-18th century. In 1916, sixty-four outdoor **lamps** were completed and ready for installation. Fifty-six lamps, corresponding to the number of signers of the Declaration of Independence, were placed on posts and installed along the walkways in and around the square. Six others were designed to hang from the buildings (figure 19).

The AIA also carried out an **archeological search in 1915** directed at determining the location of the **observatory** erected in 1769 for the transit of Venus. This work attempted to verify archeology completed in 1914 by the city's curator Winifred Jordan. Jordan took a particular interest in finding the site of the 1769 observatory, assuming it served as the stage for the first reading of the Declaration of Independence. The AIA reported no evidence of the observatory, counter to Jordan's claims that his dig had uncovered its site.



Photo 11: Independence Square looking south, 1954. The AIA changes to the square included paving the central circular grass plot which surrounded the Barry Statue with flagstone paving to match the existing bluestone material. The new bluestone was cut and laid in a radial pattern to elegantly fill the former planting bed. This photo also documents the character of smaller features such as seating, signage and waste receptacles early in the NPS stewardship of the square. From Independence NHP files, #1393.

The AIA involvement with restorations on the square concluded in 1922 with the re-dedication of Old City Hall.

Patriotic Tree Plantings and New Flagpole, 1919-1937

Following the end of World War I, the city began collaborating with patriotic and civic groups, to plant **trees** in the square in commemoration of the American Revolution and the sacrifices of all American veterans. General Pershing, World War I hero, was present to plant a tree on Independence Square in 1919 (photo 12). In 1921 the city planted about 30 trees, mostly the traditional American elm, throughout the square and held a special tree-planting ceremony for Arbor Day. In 1926, the Women's Committee of the American Revolution Sesquicentennial and the National Gardeners' Association planted 13 red oaks along the west side of the square. In 1932 assorted civic groups continued to plant trees. Celebrating the sesquicentennial of the Constitution in 1937, the D.A.R. planted trees in the square with soil from burial sites of unknown soldiers at Valley Forge. Such enthusiasm for tree planting may now be understood within the context of what was a growing national appreciation for trees

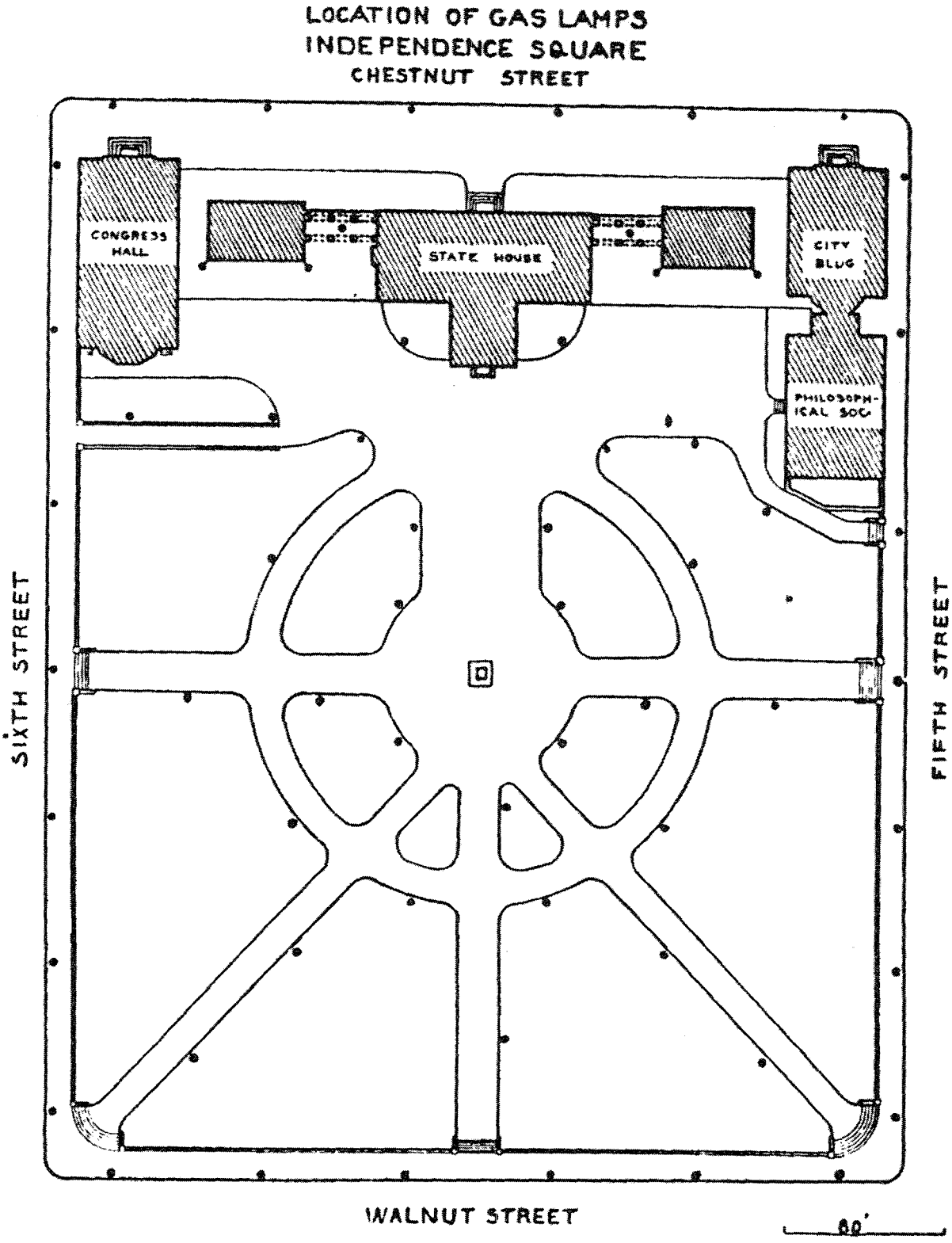


Figure 19: Location of Gas Lamps, Independence Square, 1917. This drawing locates the 62 Franklin-style lamps placed on the square as a result of the AIA redesign of 1915. From *The Historical Lighting of Independence Square* by E. F. Kingsbury, p. 454, published in *Transactions of Illuminating Engineering Society*, December 31, 1917.



Photo 12: General Pershing planting a tree, 1919. General Pershing's ceremonial planting of a tree continued a tradition General Grant may have started in 1879 when he ushered in an elm near the tower during a patriotic ceremony. The press did not indicate what kind of tree Pershing planted, but perhaps it too was an elm, as the city two years later chose to plant some 30 additional elms in the square. Pershing's tree was planted 10 yards from the tower entrance. From Independence NHP files, #16,167.

and their care. Gifford Pinchot, the U.S. Forestry Service's first chief in 1898, continued to promote tree planting during the 1920s as the governor of Pennsylvania.

Other patriotic ceremonies affected the landscape of Independence Square. In **1926**, the city installed a 75-foot **flagpole** in the grass plot south of the East Wing for the **Sesquicentennial** of American Independence.

During the Great Depression, the city could manage little beyond basic landscape maintenance. In 1932 the city placed a era cannon, salvaged from the Schuylkill River, on the central path of the square, just north of the Barry Statue (photo 13). By 1935, this cannon was removed, and its whereabouts lost to history. In 1936, Works Progress Administration funds were used to renovate the Independence Hall group of buildings and reset and repair flagstone walks.

After World War II, during 1948 the American Philosophical Society restored the exterior of Philosophical Hall on the Fifth Street side of the square. The restoration removed a mansard

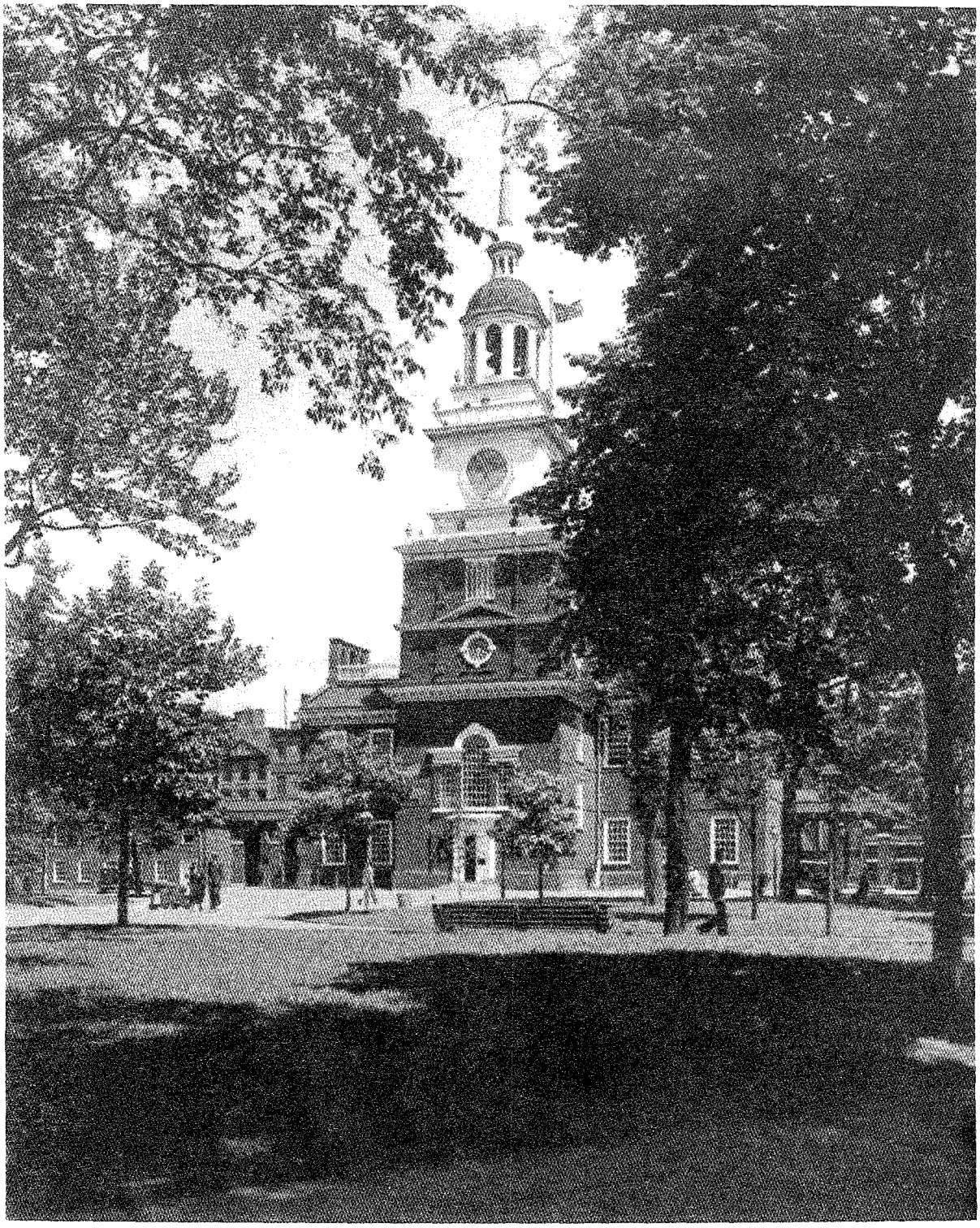


Photo 13: Independence Hall from the southeast, c. 1932-35. This summer photo of the square shows the Revolutionary War cannon dredged from the Schuylkill River and donated by the electric company to the city for permanent display on Independence Square. The cannon only remained at this site until 1935. To place the cannon at this location, the city moved an electric incandescent light from just north of the Barry Statue to just south of the statue. From Independence NHP files, #37,148G.

roof addition put on to give the Society more space in the late 19th century. In 1948, Congress passed legislation creating Independence National Historical Park, however the city continued to manage the site for two more years while planning for the national park proceeded.

NATIONAL PARK SERVICE, 1951-PRESENT

The National Park Service assumed management of Independence Square on January 1, 1951, through a cooperative agreement with the City of Philadelphia. Park historians, historical architects and archeologists soon launched into a exhaustive documentary program hoping to identify the features of the square throughout its history. Nevertheless, the particular focus of this research was the appearance of the buildings and landscape during the significant period of our nation's founding and growth during the late 18th century. The National Park Service **archeological investigations** on the square during this time cut many deep trenches across the south yard, revealing evidence of early residences, privies, wells and walls (photo 14). These digs also uncovered remnants of Vaughan's original graveled serpentine path. An attempt to locate the transit of Venus observatory foundations failed to reveal any pertinent evidence. Following up on these investigations, a historic grounds



Photo 14: Independence Square archeology, privy pit, 1953. Archeological investigations attempting to locate the underground evidence of the first Vaughan landscape were underway in the early 1950s. This photo is taken from just east of the tower where this octagonal privy pit was exposed. From Independence NHP files, #1183.

report completed in 1959 recommended the restoration of the first landscape laid out for the State House Square in 1785-87 by Samuel Vaughan.

The proposal contained in the 1959 *Historic Grounds Report on the State House Yard*, to restore the Vaughan landscape did not go forward. This was evidently due to community and city objection to its high brick wall, which was considered a potential hazard to public safety and an inconvenience for local people who walked to work across the square.

After deciding to retain Independence Square's existing landscape as received from the city in 1951, the National Park Service made few changes to its features and characteristics. In 1951, historical architect Charles Peterson, advised the park concerning the adaptation of the Franklin inspired **gas lamps to electricity**. The actual date that this modification of the lamps took place has not yet been determined from the records. In 1958, the park relocated the 70-foot **flagpole** from its original location southeast of the East Wing to its current location on Chestnut Street.

During the 1960s, Independence Square saw minor changes. In **1964**, following his tragic death, Philadelphia placed a **bronze plaque** in the Chestnut Street sidewalk to commemorate President John F. Kennedy's 1962 visit to Independence Hall. During the 1960's as part of the National Park Service's **Mission 66** program, the south square received several replacement landscape features including shrubs and trees, new wooden benches, and a new surface for the Sixth Street cobblestone driveway (photos 15 through 17). Existing flagstone walks which paralleled the city streets were repaved with brick at this time in order to effect a late 18th century appearance (photo 18). After a series of complaints from the Public Health Service, in **1968** the National Park Service **removed** the **Sons of Temperance Fountain** from Independence Square and placed it into storage (photo 19).

During 1974, in preparation for the nation's **Bicentennial** celebration, the National Park Service **redesigned** the Chestnut Street plaza based on a conjectural interpretation of 18th century features. Some documentation for this interpretive reconstruction appears in 19th Century prints and other narrative sources which were verified by archeological investigations. Exposed aggregate concrete **paving** that was intended to simulate pebblestone, colonial-styled **lamps** and **watchboxes**, a **water pump** in front of each wing building, and brick pavement with wood bollards along the curb were the key features of this reconstruction. At this time, it is likely that the park replaced the gravel borders along the yard's central path with a exposed aggregate concrete surface to create a durable substitute for pebblestone. The 1974 redesign was the last major modification to Independence Square's landscape. Maintenance of the square has since involved replacement of trees, benches and other features, as needed.

Also during 1974, the National Park Service assumed management of **Independence Mall State Park**, which consists of the three landscaped blocks to Independence Square's north. This mall was designed by Harbeson, Hough, Livingston and Larson Architects, and built by the City of Philadelphia and the Commonwealth of Pennsylvania between 1950 and 1967. This project resulted in the demolition of hundreds of 19th and 20th century structures on three densely-developed blocks north of Independence Square.

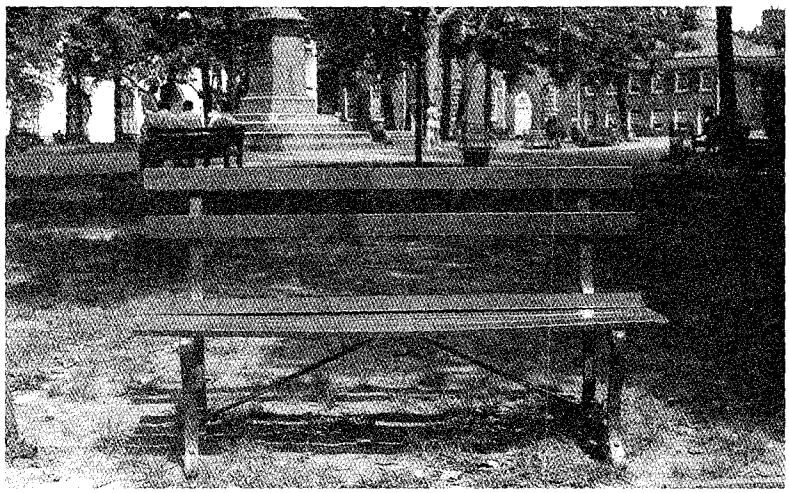


Photo 15: Benches, 1962. As part of the NPS's nationwide "Mission 66" program, Independence Square was refurnished with wooden benches. This photo shows an early style of seating that was replaced. The type of bench shown in this photo first appears on the square after 1876. From Independence NHP files, #7902B.

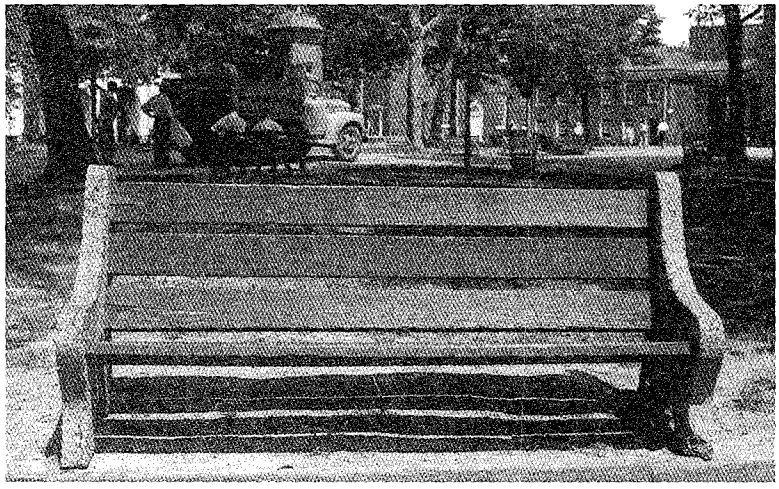


Photo 16: Benches, 1962. This photo shows another style of bench replaced as part of the Mission 66 program. The dump truck shown in the background is piled high with these deteriorated benches. The new replacements are shown lining the central walk. From Independence NHP files, #7902D.



Photo 17: Benches, 1962. This photo shows the style of wooden bench seating introduced as part of the NPS Mission 66 program. These benches have since been replaced with similar units that are widely available in commerce. From Independence NHP files, #7902F.

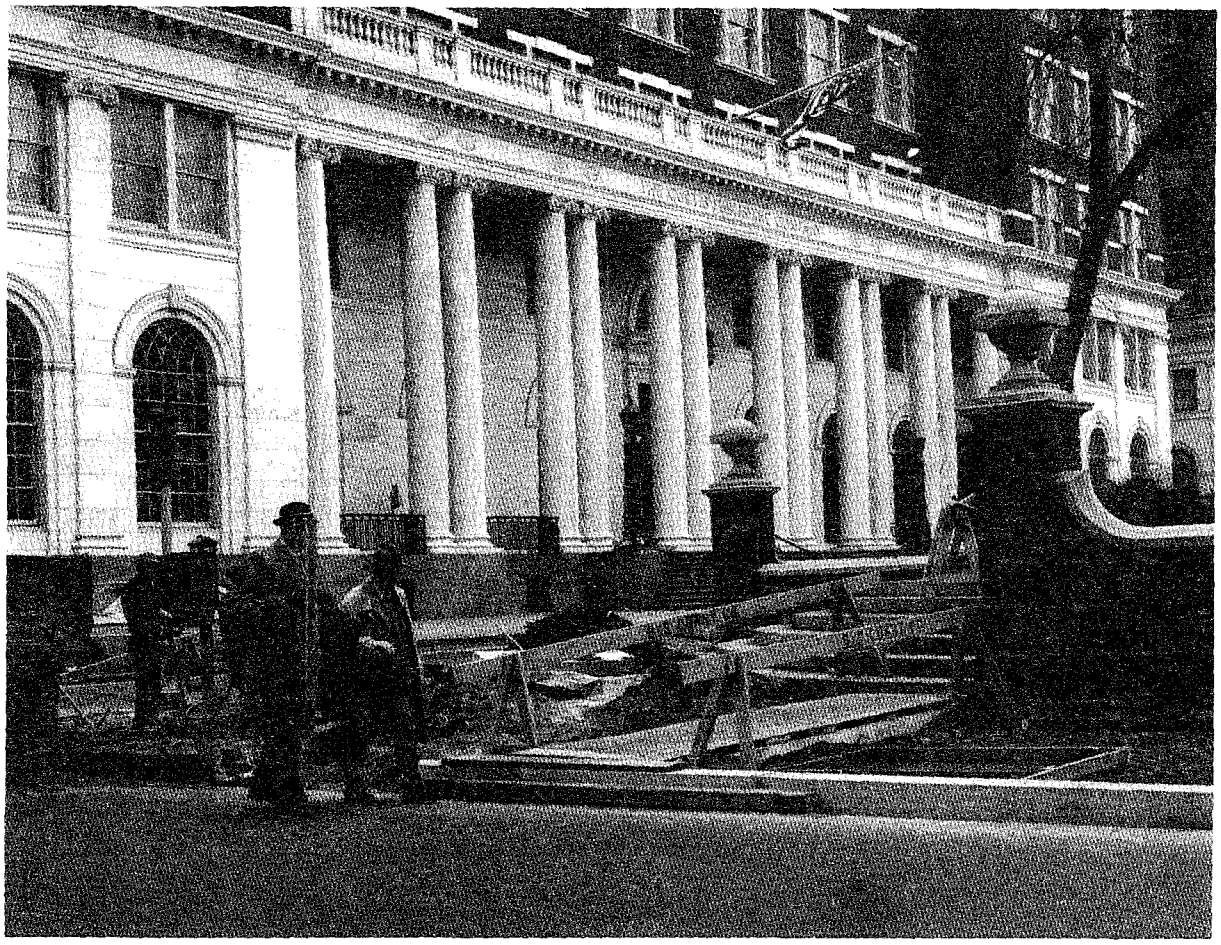


Photo 18: Repaving the sidewalks, 1962. In 1962 the National Park Service removed the flagstone sidewalks along the periphery of the square and repaved with brick in order to reflect the 18th century appearance.

The mall's completion culminated radical change to Independence Square's **setting** during a century of urban expansion and decline. Since 1885, large multi-story office buildings had been constructed on the borders of the square. Although the National Park Service demolished the Drexel Building on Fifth Street in 1957, other 20th century buildings including the Public Ledger (1925), Curtis (1910) and Penn Mutual building (1914, 1931, 1970) remain on the square's western and southern borders recalling an earlier time when Philadelphia led the nation as an industrial center. The demolition of three entire city blocks to the square's north for the creation of Independence Mall is best understood within the context of post-World War II urban renewal programs that irrevocably destroyed many historic settings in the nation. The National Park Service will receive the deed to Independence Mall in 1998, after the bonds for its construction have been paid. Then Independence Square's setting will change again, as plans take shape on the second block north on Market Street for a new regional visitor center.



Photo 19: Sons of Temperance Fountain before removal, 1968. After several years of complaints from the city's health department, the National Park Service finally removed the Centennial fountain, 10 years before its own centennial of the square. The fountain has been in storage since its removal. From Independence NHP files, #9518B.

CHAPTER 2: ANALYSIS OF INTEGRITY AND SIGNIFICANCE

INTRODUCTION

This chapter presents an analysis of the significance of Independence Square, based on the current National Register listing as well as potential new areas of significance that have been identified in the course of this Cultural Landscape Report, many of which are also identified in the park's *General Management Plan. The* information included here is based on the criteria and guidelines used by the National Register of Historic Places, including an evaluation of relevant historic contexts, areas of significance, and integrity described below. This process recognizes that historic **significance** may be present in districts, sites, buildings, structures, and objects that possess **integrity,** and which meet at least one of the National Register criteria.

As a landscape, Independence Square can be evaluated according to the guidelines outlined in *National Register Bulletin 18: How to Evaluate and Nominate Designed Historic Landscapes.* A designed historic landscape is defined as:

- significant as a design or work of art;
- consciously designed and laid out by a master gardener, landscape architect, architect, or horticulturist according to a design principle, or an owner or amateur using a recognized style or tradition;
- associated with a significant person, trend, or event in landscape gardening; or which
- has a significant relationship to the theory or practice of landscape architecture.[1]

Designed historic landscapes include a wide variety of open spaces including monuments and memorial grounds; plazas, squares, malls and other public spaces; city planning or other civic designs; and parks including commemorative designs, all of which describe Independence Square.[2] In order to be significant, a designed landscape must be an important example of a recognized type of landscape by meeting one or more of the National Register criteria and must possess integrity of location, design, setting, materials, workmanship, feeling and association (see text box).

In addition to the four criteria, the National Register provides special requirements, called Criteria Considerations, that may be applied to properties that are not typically listed.[7] Some of these considerations may be applicable to Independence Square and are also addressed in this chapter.

CURRENT STATUS

National Register Listing

Independence Square is a contributing resource as part of the 1988 National Register listing for the Independence National Historical Park (figure 1 of the listing).[8] The National Register Nomination describes four contexts that define the park's historic resources:

1. The Founding and Growth of the United States, 1774-1800
2. Philadelphia, the Capitol City, 1774-1800

National Register Criteria

Criterion A: Event

Under this criterion, properties may be eligible for listing on the National Register if they are associated with events that have made a significant contribution to the broad patterns of history. This may include association with a specific event, such as the American Revolution, or an association with a broad pattern of events such as the development of outdoor recreation.

Criterion B: Person

Under Criterion B, a property may eligible for listing on the National Register if it is associated with the lives of persons significant in our past.

Criterion C: Design/Construction

Under Criterion C, a property may be eligible if it embodies the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.[5] This is the criteria used to evaluate sites for their significance in architecture or landscape architecture.

Criterion D: Information Potential

Properties eligible under Criterion D yield or may be likely to yield information about prehistory or history.[6] This criterion is typically used for archeological resources.

3. Benjamin Franklin, 1765-1790
4. Architecture, 1834

Founding and Growth of the United States, 1774-1800: The resources listed under this context all have links to the political establishment, growth, and stabilization of the nation as well as structures, objects, or sites associated with individuals who served the early national government.[9] Independence Square is listed as a contributing resource in this context. The nomination notes that the "four acres of flagstone walks, lawn, and trees now in the square represent landscaping designs of 1875-76 and 1915-1916" and that "no attempt has been made by the National Park Service to restore Independence Square to its eighteenth century appearance."[10] The most important characteristic of the square under this theme is its 260-year history as open space. Although dating to later periods, other contributing resources in this context include the Commodore John Barry Statue, the George Washington Statue, and the Lincoln Plaque. The John F. Kennedy Plaque (1964) is considered noncontributing.

Independence Hall is also listed as a contributing structure under this context. The nomination cites "intensive investigation of the building and its history provided the documentation for its complete restoration and refurnishing to its historic period, 1774-1800."[11] Similarly, Congress Hall (1789) and Old City Hall (1791) are also contributing structures. The sites, structures, and objects listed in this context meet National Register criterion A.

Philadelphia, Capitol City, 1774-1800: This context identifies the cultural features within Independence National Historical Park that contributed to making Philadelphia the choice as the nation's capital during the late eighteenth century.[12] Contributing structures within the

boundaries of the square include Philosophical Hall (1789); the "restored" brick sidewalks are listed as a contributing nonhistoric feature. Independence Square is not cited as a contributing resource under this context although it provides the setting for Philosophical Hall. The structures listed under this theme meet National Register Criterion A.

Benjamin Franklin, 1765-1790: The structures and sites associated with Benjamin Franklin's home in Franklin Court are addressed in this theme. No resources in the Independence Square block are listed.

Architecture, 1834: The nomination addresses one architecturally significant structure, the Merchant's Exchange, located at the northwestern corner of Dock and Walnut Streets. No resources in the Independence Square block are currently listed for their architectural significance.

World Heritage Site

Independence Hall was designated a World Heritage Site in October, 1979 under criteria VI for cultural properties, as it possesses important associations with the ideas, beliefs, and events of outstanding historical importance.[13] While Independence Square is not discussed in detail in the narrative of the nomination form, the entire square block is delineated in the map locating the historic property as part of the listing.

POTENTIAL NEW AREAS OF LANDSCAPE SIGNIFICANCE

Summary

The following sections summarize three potential historic contexts related to the landscape of Independence Square. (For a more detailed description of the contexts, please see appendix A which includes a brief narrative essay and discussion of applicable property types, physical features, and level and period of significance.) These contexts describe patterns or trends in history which have influenced the physical development of Independence Square and serve as the overarching themes within which the National Register criteria are applied. This analysis is intended to recommend new themes in American history that give the Independence Square landscape, as a whole, significance in its own right. Within these themes, the existing features, materials, and spaces may **contribute** to the significance of the square as long as they relate to a specific historic context.[14]

The contexts listed below have been drawn from the first volume of this Cultural Landscape Report, *The Independence Square Historical Narrative* as well as the park's *General Management Plan* and placed within the National Park Service Thematic Framework.[15] This framework provides a new, conceptual vision of historical analysis (see text box).

The property, under the contexts summarized below, appears to have sufficient integrity to meet one or more National Register criteria. Additional contexts that have not been evaluated, but which warrant further consideration are also listed below.

NPS Thematic Framework — National Historic Landmark Program

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 Role of the United States in the World Economy

Area: Expressing Cultural Values

Centennial of American Independence: Independence Square, as redesigned in 1876 for the Philadelphia Centennial of American Independence, reflected late 19th century design traditions for city squares (drawing 4). As the setting for Independence Hall, the redesigned square also influenced the historic preservation movement, by increasing public awareness and appreciation for relics of the Colonial period. The plan for the square was a new design, commemorative in intent, and was not based upon historic precedent. The new design, which retained Independence Square as a memorial open space, reflected the heightened importance the post Civil War generation placed upon the Revolutionary era as a unifying national theme. In this context, the square appears to meet National Register criterion A for its association with the celebration of the American Centennial and criterion C as an important example of 19th century urban square design. It also meets criterion F (special considerations) as a commemorative property that has come to symbolize the value that the Centennial generation placed in preserving the Revolutionary past.

Historic Preservation — Professionalism in the Early Twentieth Century, 1913-1917: The post-1913 rehabilitation of Independence Square, under the direction of the Philadelphia chapter of the AIA, was a noteworthy early twentieth century preservation effort by a professional organization (drawing 5 and figure 16). This project, and the contributions of the Philadelphia AIA chapter have played an important role in developing the canons of the new and evolving historic preservation movement. The AIA sought to design a dignified setting for Independence Hall and, secondly, to simplify the Centennial design to better accommodate public gatherings, recreation, and pedestrian traffic. Specific features, such as the perimeter wall, were directly inspired by historic precedent (figure 18). The AIA redesign also reflected a conscious decision not to restore the square partly because of the absence of sufficient documentation. The AIA's involvement in the Independence Square landscape reflects the professional practice of architects creating compatible settings for historic buildings, a practice that persisted until professional landscape architects entered the field in the late 1920s. The AIA work of Independence Square appears to meet National Register criteria A and C as an important preservation effort associated with a national symbol and because the design and documentation principles of professional historic preservation practice are clearly evident.

Area: Shaping the Political Landscape

Philadelphia Politics and Government, 1765-1870: From the late 18th century until after the Civil War, Independence Square provided both a functional and ceremonial setting for political protests, rallies, and other public gatherings. This included, in the early years of the republic, expressions of local sentiment on national issues. By the mid 19th century, the square served as an outdoor arena and gathering place for the city's political establishment. Prior to the Civil War, a number of notable public gatherings, protests, and rallies were staged in the square including events related to the Stamp Act (1765), the passage of Jay's Treaty (1795), the British attack on the frigate *Chesapeake* (1807), Jefferson's embargo (1809), Lafayette's visit (1824), a Whig rally (1834), and a rally to support force to suppress the Irish Kensington riots (1844). During the Civil War, the square was an active location for the airing of public concerns and to hear Lincoln's address (1861). Although the city council proposed banning public gatherings in 1868, the square continued to serve as the symbolic and political heart of the city until 1870 when the city decided to move its offices to Penn Square. In this context, Independence Square appears to meet criterion A.

Criterion Consideration F: Commemoration

Commemorative properties addressed in Criterion Consideration F include those that are designed or constructed after the occurrence of an important historic event or after the life of an important person, serving as evidence of a later generation's assessment of the past.[16] Properties eligible under this consideration typically fall into two categories: a property whose commemorative features are significant for their architectural, artistic, or design qualities and properties that have acquired significance through age, tradition, or symbolic value that is documented.[17]

Independence Square has a long and consistent history of commemorative activities, intentions, and additions that have been integral to its retention as a public open space for over 260 years. This is due, in large part, to the symbolic importance of the square as the place where the national government was established. It has also functioned as the heart of the city, especially during the 19th century, before city government relocated to Penn Square. Independence Square has benefited from two centuries of conscious preservation and commemoration in order to retain as public open space, the "hallowed ground" where some of the most important events in the founding of the nation occurred. Countless monuments and memorials have been proposed, many of which have been executed and remain such as the Barry and Washington Statues, the Lincoln Plaque, and trees planted to memorialize historic events. Perhaps the most significant commemorative effort expressed at Independence Square was the 1876 redesign to mark the Centennial of the Revolution, discussed above. A strong sense of history and place directed the evolution of this landscape as each of these events, and the resulting physical changes, reflect the commemorative traditions of successive generations.

The presence of the tree canopy, commemorative objects, retention of the central walk/axis to Independence Hall, as well as other features, all contribute to the significance of the square as a commemorative landscape.

Additional Contexts and Criteria Which May Warrant Future Consideration

The rich history of Independence Square includes a number of historic contexts that have not been evaluated in this CLR, but which may warrant additional study in the future. These contexts are, in large part, outside the scope of this CLR, as they relate to multiple resources (such as associated buildings) or a much larger geographic context (such as the City of Philadelphia), or require additional comparative research (urban squares) in order to evaluate significance beyond the local community. They include additional work to evaluate the importance of Independence Square as an urban square and public open space and to better link the history of Independence Hall and Independence Square to the historic preservation movement.

Urban Squares: Independence Square clearly represents an urban open space that has been consciously retained and preserved by the provincial, state, and city governments for public benefit and recreation, and as a dignified setting for Independence Hall, for over 260 years. This intent can be traced to 1736 when the Commonwealth of Pennsylvania set aside the grounds as a public open walk and green. Since that time, the city government and residents of Philadelphia have fought, often persistently, to ensure that the tree planted open space was retained. As early as 1792, debate over the removal of the high wall surrounding the square prompted much discussion about the recreational advantages of the yard. A public memorial cited the need for tree planting to improve the health of the city and indicated that exercise and recreation as the justification for repairing the deteriorated squares of the city.[18] The importance of Independence Square as a recreational resource has varied considerably, as other landscapes were improved and new parks created elsewhere in the city. However, there does appear to be consistent intent by the Philadelphia City Council to maintain the square "for the recreation of inhabitants" throughout its history.[19]

In addition, several noteworthy designs have been executed here, including the work of Samuel Vaughan (1785-87), the Centennial Plan (1876), and the AIA plan (1916-17). For these reasons, it is likely that Independence Square is locally significant according to National Register criterion C, as an urban square.

What is yet to be determined, is the degree to which Independence Square influenced the evolution of urban squares in other cities, and the relative importance of the preservation and retention of the essence of a colonial square for over two centuries. Although the gridiron plan with five city squares designed by William Penn in 1682 may be the first of its kind in the U.S., the State House (Independence Hall) was constructed in 1735 without a relationship to the original squares.[20] A more comprehensive analysis would include a historical study of the development of commons and squares in other cities, including, but not limited to:

- Plaza de Armas (Jackson Square), Savannah (1718-1721)
- Santa Fe Plaza (1610)
- New York squares (Washington Square, Gramercy Park, Union Square, etc.)
- L'Enfant's plan for Washington, D.C. including Lafayette Square
- Boston Common

This evaluation is necessary to determine significance beyond the local level.

The Evolution of Historic Preservation Practice 1828-1976: Independence Hall and Independence Square may be significant in the context of the evolution of the historic preservation movement for a much broader time period. The analysis provided in this CLR focused specifically on the significance of the square related to the work of the AIA in the professionalization of the preservation movement.

Independence Hall and by association, Independence Square are well documented as one of the earliest examples of historic preservation in America, as expressed both in stewardship by a governmental body (the City of Philadelphia) as well as physical improvements necessary to replace missing features essential to the property's history. This analysis is largely based on the body of work on the history of the preservation movement by Charles B. Hosmer, Jr., whose 3-volume narrative definitely places Independence Hall and Independence Square in the context of the preservation movement as a whole. For example, Hosmer writes of the city's improvements (restorations) to the hall and square as a "constant attempt to get things right," a practice which continues today. The specific legal actions and physical improvements associated with the city's preservation objective are all described in much greater detail in the *Independence Square Historical Narrative* by Anna Coxe Toogood.

Interestingly, perhaps the most important contribution the city has made to the preservation of Independence Square is their steadfast and constant work to prevent construction of new buildings, streets, and inappropriate memorials in the interior of the square south of Independence Hall, that would permanently alter the sense of place and the relationship between the landscape and structure.

However, it is not possible to completely separate Independence Hall and Independence Square in this context. First, much of the published work on the history of the preservation movement focuses primarily on historic buildings. Therefore, much of recorded historical interest in the property relates to the efforts to restore the exterior and interior of the hall. Secondly, and more importantly, since the primary historical significance of the square and hall relates to the Declaration of Independence and the founding of the nation, it is likely that the preservation of these resources is inextricably linked as well.

Additional work to evaluate a broader context including Independence Hall and Independence Square, requires a more thorough analysis of the trends and stages of historic preservation in the U.S., including a more thorough analysis of landscape preservation. Such an evaluation would consider additional events omitted from the contextual essay (appendix A), including acquisition of the square by the city, Strickland's steeple restoration, Havilland's interior restorations and site improvements, as well as the contributions of the Daughters of the American Revolution (D.A.R.) and the Colonial Dames, and improvements associated with the Sesquicentennial. This theme is very likely applicable to other buildings in the park, such as Congress Hall and Old City Hall.

Criterion Consideration G: Properties That Have Acquired Significance within the Last 50 years: Further study may also reveal the significance of the Bicentennial celebration in Philadelphia which motivated modest changes to the square to present a more "historic" appearance. Brown Morton credits the Bicentennial celebration as generating "unprecedented public attention on the history, culture, and traditions of the nation" that also contributed to a great surge in not-for-profit preservation.[21] However, it is likely that a

complete body of knowledge or historical perspective does not yet exist to fully evaluate this 20th century event in order to meet the special considerations of Criterion G.

Architectural Significance of Independence Hall: The existing National Register nomination does not include Independence Hall as an important example of colonial architecture. Interestingly, numerous examples of copies of the building, especially the clock tower, were designed and constructed during the colonial revival. Recently, the "Historic Resource Study for the Longfellow National Historic Site" has revealed the importance of this colonial building in the popularization of the colonial style. It is possible that Independence Hall may hold some similar significance as an colonial icon that was replicated in many revival buildings.

Civic Improvements in Philadelphia and the City Beautiful Movement: At the turn of the 20th century, a movement to beautify cities led to improvements nationwide that included public parks and government buildings. Although it was clearly a national movement led by prominent planners and citizens, the physical design and improvement associated with the City Beautiful are very specific to individual cities.[22] The height of the movement, according to Morton, is the period between 1900 and 1909, and it is possible that the City Beautiful may have motivated the improvements to the square around the turn of the century including the work of the AIA. This context could be analyzed in a comprehensive study of the evolution of the park system and parkways in Philadelphia.

INTEGRITY

Historic integrity is defined as "the authenticity of a property's identity, evidenced by the survival of physical **characteristics** that existed during the property's historic period.[23] The evaluation of Integrity is often a subjective judgment, but it must always be grounded in an understanding of a property's physical features and characteristics and how they relate to its significance. The National Register recognizes seven aspects or qualities that, in various combinations, define integrity. These aspects of integrity include; location, design, setting, materials, workmanship, feeling and association. Retention of these qualities is essential for a property to convey its significance.

Cultural landscapes are dynamic resources that respond to changes in the seasons, the environment and popular culture. The traditional focus on preserving buildings made of durable materials has fostered a strong emphasis on the retention of original historic fabric as the primary test for integrity. While retention of original historic fabric is clearly desirable, a focus solely on retaining original physical features and materials can be problematic in a historic landscape because of the prevalence of ephemeral plant materials and other dynamic natural and cultural processes which are difficult or impossible to control.[24] Thus, it is important to evaluate authenticity of form as well as strict material accuracy in order to determine the integrity of the landscape as a whole.

Physical change has been a regular event in the 260 year history of the square. As a result, the contemporary appearance of Independence Square represents multiple layers of history. It continues to be the historic location of the signing of the Declaration of Independence and the framing of the United States Constitution as well illustrating other aspects of American history, including contributions to the field of historic preservation. The features, materials, and spaces of the square have never been in static condition. Rather, they have been used

continually, regularly changing to meet the evolving interpretation of this shrine. The following evaluation of integrity considers the seven aspects of integrity within three broad periods in the square's history drawn from major construction events outlined in the *Independence Square Historical Narrative.*

Changes to the Independence Square Landscape

The removal of the unstable wooden steeple from the State House in 1781 prompted the first relocation of the Liberty Bell to a more visible location. The desire to create a dignified setting for the bell led to the installation of Samuel Vaughan's landscape design for the square between 1785-1787. Soon thereafter, public interest in the square and in the health of the city prompted the removal of the high brick wall surrounding the square. This allowed passersby on adjacent streets the full benefit of air circulation and views of the landscape. Piecemeal changes to the landscape have continued since the 18th century.

Lafayette's visit to the square in 1824 helped create the vision for correcting some of these random changes and promoted a return to the property's so-called "historic" appearance. In 1828, the Independence Hall steeple was reconstructed at the direction of architect William Strickland. Anniversaries of the signing of the Declaration have also served as important milestones and incentives to improve the landscape. While modifications to the buildings were largely motivated by changes in the occupants of the buildings in 1812 and 1896, changes to the landscape were motivated by preparations for the Centennial, Sesquicentennial, and Bicentennial celebrations. The current configuration of the square, rather than depicting a fixed point in historical time, instead reflects layers of changing tastes and preferences into the early 20th century as well as solutions to many practical issues (drawing 6).

The Vaughan Landscape – 1785-1874, Integrity – Low : (See drawings 2 and 3.) Independence Square currently retains very little integrity related to the Vaughan design. The qualities of location and association are evident, as will be found to be true for all successive periods described in this evaluation. The boundaries of the square remain essentially the same as they were in the late 18th century. Integrity of **association** is conveyed by the continued presence of Independence Hall, an icon of early American history. The integrity of Vaughan's original **design** however, is severely diminished, while discrete elements of the design persist. The most prominent of these is the axial central walkway between the tower of Independence Hall and the Walnut Street entrance. The exact planting schemes laid out by Vaughan, including the double rows of trees on either side of the central walk are no longer extant, however a canopy of trees does remain on site, providing a degree of continuity between this first design and the extant condition. The serpentine paths laid out by Vaughan around the square's perimeter have not survived. Qualities of integrity relating to **materials** and **workmanship** are not retained in the present landscape from the 1785-1875 period due to a simplification of the palette of plantings on the site, and the reconfiguration of perimeter walls and surface materials of the pathways. Qualities of integrity relating to **setting** and **feeling** for this period have been eliminated due to adjacent modern development, and changes in city life, such as traffic noise.

Features/characteristics retained from the Vaughan landscape include: boundaries, zoning of buildings in the landscape, the central axial walkway south of Independence Hall, the grove of trees south of Independence Hall, and turf covering of ground plane.

Features/characteristics modified from the Vaughan landscape include: topography, circulation, including perimeter sidewalks, walkway surfaces, walls and stairs, the double row of trees on Chestnut Street, reduction in the variety of trees, site furnishings such as lighting and seating, "restored" features such as the watchboxes and pumps and pavements associated with early NPS management and Bicentennial preparations.

Features/characteristics missing from the Vaughan landscape include: serpentine paths, iron palisade fencing, and the double allee of trees lining the central walkway south of Independence Hall.

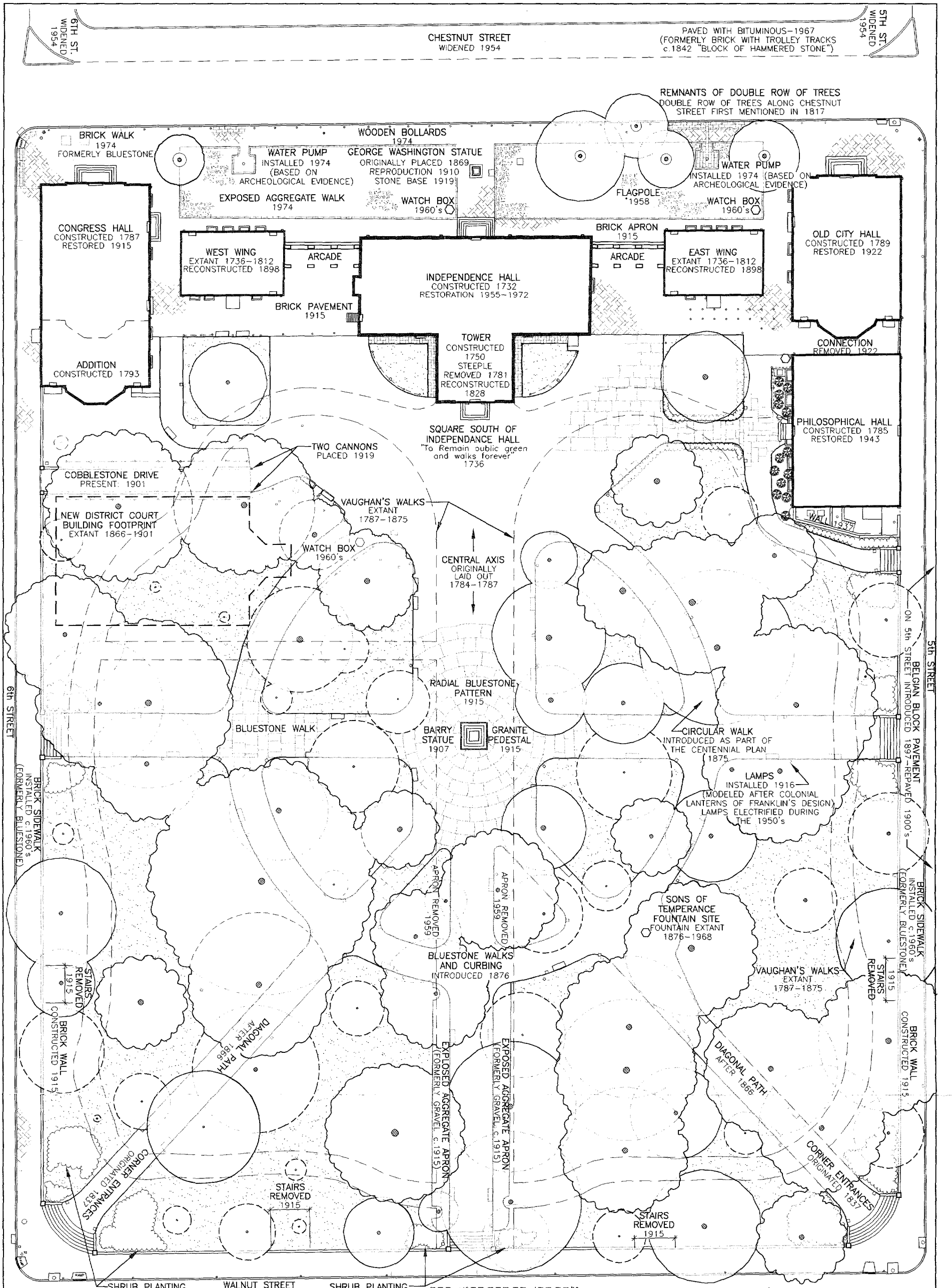
The Centennial Landscape – 1875-1914, Integrity – Moderate: (See drawing 4.) Today's extant landscape retains a higher level of integrity from the 1875-1914 period than that of the earlier Vaughan landscape. However, the landscape from this later period has also been altered. Integrity of **design, materials** and **workmanship** are all retained, yet in diminished form. The landscape retains the radial layout, flagstone paving and curved granite stairs of the pedestrian circulation system implemented during this period. This circulation system has been modified by later designs which have eliminated several redundant entrances, and placed flagstone infill over the circular plot of ground at the center of the square. Outdoor lighting, benches, iron fencing and other small scale features from this period have not survived. A later design for the perimeter wall has also replaced the low wall surrounding the square during the years of the Centennial landscape. Integrity of **setting** and **feeling** relating to the 1875-1914 period have suffered due to inescapable modern development and city life adjacent to the property. As the landscape of the square for this period was commemorative of the events and personalities of the nation's founding, integrity of **location** and **association** have remained intact throughout the history of the property.

Features/characteristics retained from the Centennial landscape include: boundaries, zoning of buildings in the landscape, grove of trees south of Independence Hall, and granite stairs at entrances.

Features/characteristics modified from the Centennial landscape include: topography, perimeter walls and entrances, Sixth Street driveway, views and axial relationships, radial circulation pattern and flagstone paving south of Independence Hall, stormwater drainage system, site features such as lighting and seating, the George Washington Statue and its pedestal.

Features/characteristics missing from the Centennial landscape include: the "New" District Courthouse south of Congress Hall, iron palisade fencing south of Independence Hall, the Sons of Temperance Fountain.

The AIA Landscape – 1915-1951, Integrity – High: (See drawing 5 and figure 17.) The extant landscape of Independence Square retains the highest degree of integrity from the period of 1915-1951. This period begins with a rehabilitation by the Philadelphia Chapter of the American Institute of Architects in 1915 and ends at 1951 when the property was turned over to the stewardship of the National Park Service. Integrity of **location, design, materials** and **workmanship** are all retained to a high degree, despite some deterioration and settling of flagstone surfaces. Existing circulation patterns, brick perimeter walls, outdoor lighting and the majority of individual trees date to the 1915-1951 period. Recent restoration efforts, directed at the perimeter sidewalks and the Chestnut Street plaza, have attempted to evoke



HISTORICAL BASE MAP

SCALE OF FEET
20 0 20 40

NOTES

1. TREES RENDERED WITH THE FOLLOWING OUTLINES INDICATE ESTIMATED AGES.
   - LESS THAN 42± YEARS
   - BETWEEN 42± AND 81± YEARS
   - GREATER THAN 82± YEARS
2. LIBERTY BELL MOVED FROM THE HALLWAY OF INDEPENDENCE HALL TO THE FIRST BLOCK OF INDEPENDANCE MALL STATE PARK DURING THE BICENTENNIAL 1976.
3. INDEPENDENCE MALL STATE PARK DEVELOPED 1954–1967.

SOURCES

DRAWING, HISTORICAL RECORD, 1732–1969, NHP–IND 2653–8 SHEETS

DRAWING, A.I.A. NHP–IND 10,011. PLOT PLAN SHOWING PROPOSED IMPROVEMENTS TO INDEPENDENCE SQUARE, 1914.

DRAWING, A.I.A. PLAN SHOWING NEW WALL FOR INDEPENDENCE SQUARE, 1914.

DRAWING, BUREAU OF CITY PROPERTY, PLAN OF INDEPENDENCE SQUARE SHOWING EXISTING CONDITIONS AS OF 1/1/1926.

DRAWING, NHP–IND 2003A, BUREAU OF CITY PROPERTY, "PLAN OF INDEPENDENCE SQUARE SHOWING EXISTING CONDITIONS AS OF 1/1/1926. REVISED AND ANNOTATED 1952.

ILLUSTRATIONS AND HISTORIC PHOTOGRAPHS.

DRAFT HISTORICAL NARRATIVE, CLR FOR INDEPENDENCE SQUARE, TOOGOOD, 1996.

Drawing 6

391/20115

the earlier 1790-1800 "Capitol City Decade" and therefore detract from the integrity of **materials** of the 1915-1951 period. Efforts to evoke the 1790-1800 decade, as well as the creation of Independence Mall State Park during the 1950's and 1960's, have resulted in the removal of many 19th century buildings surrounding the square. This has diminished the integrity of setting for the 1915-1950 period. Nevertheless, integrity of both **setting** and **feeling** are more clearly conveyed by existing conditions for this later period than by those preceding it.

Features/characteristics retained from the AIA landscape include: boundaries, zoning of buildings in the landscape, views and axial relationships, layout and surface of pedestrian circulation system, perimeter walls, stairs and entrances, topography, stormwater drainage system, bollard.

Features/characteristics modified from the AIA landscape include: surface material of perimeter sidewalks, widening of Chestnut Street, modification of setting and context by removal of 19th century buildings adjacent to the square, loss of trees along Chestnut Street,

Definitions - Aspects of Integrity

Location: Location is the place where the historic property was constructed or where an historic event occurred. Except in rare cases, the relationship between a property and its historic associations is destroyed if the property is moved.

Design: Design is the combination of elements that create the form, plan, space, structure, and style of a property. It results from conscious functional, technical, and aesthetic decisions made during the original conception and planning of a property (or its significant alteration) and applies to activities as diverse as community planning, engineering, architecture, and landscape architecture.

Setting: Setting is the physical environment in which the historic property is located. Setting refers to the character of the place in which the property played its historical role, and thus involves how, not just where, the property is situated and its relationship to surrounding features and open space.

Materials: Materials are the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property. The choice and combination of material reveals the preferences of those who created the property and indicate the availability of particular types of materials and technologies.

Workmanship: Workmanship is the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory. Workmanship can be expressed in vernacular methods of construction, plain finishes, or highly sophisticated configurations and ornamental detailing based on common traditions or innovative techniques of the period.

Feeling: Feeling is a property's expression of the aesthetic or historic sense of a particular period of time. Since feeling is an intangible aspect of integrity, the physical appearance of the property must produce an understanding and recognition of its history.

Association: Association is the direct link between an important historic event or person and a historic property. A property retains association if it is the place where the event or activity occurred and is sufficiently intact to convey that relationship to an observer.

electrification of the AIA site lighting, introduction of "restored" elements from the Vaughan landscape, replacement of gravel aprons along central walkway with exposed aggregate concrete.

Features/characteristics missing from the AIA landscape include: site features such as benches, the Sons of Temperance Fountain.

SUMMARY OF CONTRIBUTING RESOURCES AND CHARACTER-DEFINING FEATURES

The following structures, sites, and objects within the boundaries of the Independence Square block are presently listed as contributing resources in the 1988 National Register nomination or are recommended for consideration based on the three historic contexts evaluated in this CLR. Additional contributing resources recommended in this study are listed in italics. Character-defining features include the features, materials, and spaces which contribute the landscape's significance in each context. This include features added during the specific period, as well as features consciously (or unconsciously) retained from an earlier period, which significantly define the character of the landscape. Thus it is possible for an existing feature to contribute to the landscape's significance for more than one context or historic period.

Contributing resources and character defining features associated with previously established historic contexts are listed below. The italicized features are recommended in this report.

Context: Founding and Growth of the United States (1774-1800)			
Sites: Independence Square	Structures Independence Hall	Objects: Washington Statue	Character-Defining Features: *Spatial Organization* *views axis* *building complex boundary* *Circulation* *perimeter sidewalk* *central walk* *Vegetation* *grove of trees*
Context: Philadelphia, Capitol City (1744-1800)			
Sites: *Independence Square*	Structures: Philosophical Hall	Objects: None	Character-Defining Features: *Spatial Organization* *views axis* *building complex boundary* *Circulation* *perimeter sidewalk* *central walk* *Vegetation* *grove of trees*

Contributing resources and character-defining features associated with potential new areas of significance as recommended in this CLR.

Context: Philadelphia Politics and Government, 1765-1820			
Sites: *Independence Square*	Structures: *Independence Hall*	Objects:	Character-Defining Features: *Spatial Organization* *boundary* *building complex* *views and axis* *Circulation* *perimeter walk** *Vegetation* *grove of trees* *turf* *Site Furnishings* *seating**
Context: Centennial of the American Revolution, 1876			
Sites: *Independence Square*	Structures: *Independence Hall* *Congress Hall*	Objects: *Washington Statue**	Character-Defining Features: *Spatial Organization* *building complex* *boundary* *topography* *views and axis* *Circulation* *current stairs* *interior walks (radial design)* *perimeter sidewalk* *Vegetation* *grove of trees* *turf*
Context: Historic Preservation, Professionalism in the Early 20th Century			
Sites: *Independence Square*	Structures: *Independence Hall* *Congress Hall*	Objects: Washington Statue Barry Statue Lincoln Plaque	Character-Defining Features *Spatial Organization* *building complex* *boundary* *topography* *views and axis* *walls and stairs* *Circulation* *interior walks (radial design)* *perimeter walk* *cobblestone drive* *Vegetation* *grove of trees* *turf* *Site Furnishings* *lighting* *bollards and chains* *cannon*

*Features that have been altered or replaced, but which still help to define the character of the square in a specific context.

For a more detailed description of the resources and features listed above, please see Chapter 3: Landscape Features.

CONCLUSION

Independence Square, although preeminently the setting for the founding and early political history of the United States, also follows in form, function, and historical development, the public squares of the seventeenth, 18th, and 19th century town and city throughout the country.

Whether developed by settlers from Great Britain, France, or Spain, the earliest New World towns had plazas, commons, or town squares that were the setting for public buildings and public events. Here, inhabitants carried out civic rituals and expressed community values and beliefs. These earliest colonial squares with buildings fronting on open spaces had their 19th century equivalent in midwest and southern courthouse squares, with a centrally located courthouse.

The earliest squares were not designed spaces, but yards, commons, or fields. But by the late 18th century and into the 19th century, an active effort was frequently made to make these places park-like oases for growing cities. Nineteenth century squares were designed from the start. After the Civil War and with the celebration of the American Centennial in Philadelphia, the nation commemorated its past by transforming many public squares into symbols of nationhood and government, frequently replacing governmental and park functions with commemorative ones. Public art, hitherto largely unknown and restricted to a few icons, became common place.

The urban open space of Independence Square dates to Philadelphia's founding in 1683, but it became a public square in 1736, when the Pennsylvania legislature purchased land for an assembly hall. Prior to and after its use by the national government, Independence Square, then called the State House Yard, was the location of Pennsylvania's provincial and state government. Although the Pennsylvania Assembly intended in the 1730s for the State House Yard to be landscaped with walks and trees, it appears that throughout the Revolutionary War and up until 1784, the grounds were more of a service area surrounded by a board fence than a public green.

In the 19th century, after the removal of the state capitol to Harrisburg, the square became the site of Philadelphia city government. From the Colonial and Revolutionary periods through the 1860s, Philadelphians used the square as a political and civic gathering place. During the period between 1870 and 1895, the city relocated its government, redesigned the square into a commemorative space, and began to rehabilitate the square and to actively preserve it as a historic open space. In the 20th century, the square's redesign became the charge of the newly professional historic preservation movement.

The first landscape design for the square occurred in 1785 when Samuel Vaughan, applying current tastes in landscape gardening, created serpentine and undulating paths in a space surrounded by a high brick wall. The design, remained throughout Philadelphia's period as the nation's capitol (1790-1800) and was altered somewhat during the period Independence Hall was used by the city government. The earlier design and its modifications, was largely replaced by William F. Dixey's Centennial design of 1875. This second plan, characterized by

a lowering of the perimeter wall and a new radial and diagonal pattern of paths effected the removal of a number of trees and created an accessible and easily maintained open space in the midst of a heavily trafficked area of a large city. Ironically, the redesigned Independence Square, although commemorative in intent, did not include the monumentation that later became associated with the resurgent nationalism that followed the celebration of the Philadelphia Centennial at Fairmount Park in 1876. The city, in approving Dixey's design, rejected other plans proposing extensive commemorative statuary to Revolutionary era figures. Not until 1907 was a bronze statue of Commodore John Barry, a Revolutionary naval officer, placed as the focal point of the radial paths.

The 1875 plan represents a transitional design. It evidences the formal characteristics of the redesigned squares of the mid-19th century and the openness and accessibility of later public squares. Between 1875 and the early 20th century, an historic preservation ethic began to replace the monumentation to which the Philadelphia Exhibition helped give rise. Historic preservation, often credited as originating with the activities of the Mount Vernon Ladies Association, was accompanied, in the early 20th century, by a colonial revival movement in architecture that had become a national phenomenon. However, through the 1920s, professional architects in historic preservation continued to view landscapes simply as settings for historic buildings.

In Philadelphia, the Philadelphia Chapter of the American Institute of Architects formed a Committee on Preservation of Historic Monuments in 1898. When they began work on the restoration of the Independence Square complex of buildings in 1911, the committee's involvement in Independence Square was secondary. Initially, in fact, the AIA's interest appears to have been centered on a compatible lamp design. In any case, the AIA redesign of Independence Square involved the application of rehabilitation principles to the 1875 Centennial design.

RECOMMENDATIONS

Although this analysis does not constitute a National Register nomination, the concepts proposed here could inform or enhance an amendment to the current historic district listing and ultimately, amending the nomination to reflect the new areas and periods of significance for the square.

Based on the information included in this chapter, appendix A, and the *Independence Square Historical Narrative,* it appears that Independence Square is independently significant in at least three historical areas — for its role as the political heart of the City of Philadelphia (1765-1870), for the commemorative design associated with the Philadelphia Centennial of the American Revolution (1876), and for its contributions to the historic preservation movement as demonstrated by the AIA design (1913-1917). It is also very likely that the square is significant in other areas, such as for its 260-year history as an urban square.

The park may need to consult with the State Historic Preservation Officer (SHPO) regarding the proposed additional areas of significance proposed here. In the interim, the features, materials, and spaces associated with the three contexts listed above should be considered significant in the schematic design phase of this CLR. The additional themes not addressed in this report might be better developed in a historic resource study that more clearly and

definitively addresses the importance of Independence Square in these contexts, especially related to historic preservation and urban squares.

ENDNOTES

1. Timothy Keller and Genevieve P. Keller. "National Register Bulletin 18: How to Evaluate and Nominate Designed Historic Landscapes." National Park Service, 1987. p.2.

2. Ibid.

3. National Park Service, National Register of Historic Places. *Bulletin 16A: How to Complete the National Register Registration Form* and *Bulletin 15: How to Apply the National Register Criteria for Evaluation.* (Washington, D.C., United States Department of the Interior, National Park Service, Interagency Resources Division, 1991).

4. Ibid.

5. Ibid.

6. Ibid.

7. Ibid

8. National Park Service, National Register of Historic Places, Inventory-Nomination Form for Independence National Historical Park. Entered 1-21-88.

9. Ibid. Section 7, p. 5.

10. Ibid. Section 7, p. 7.

11. Ibid. Section 7, p. 7.

12. Ibid. Section 7, p. 29.

13. World Heritage Nomination Form for Independence Hall. Prepared by Jim Charlton, National Park Service. Entered on the World Heritage List on October 24, 1979, 25.

14. Note that the presence or absence of specific features over a long period of time does not necessarily create significance. This analysis is intended to evaluate Independence Square for its contribution to defined events in American history.

15. See Anna Coxe Toogood. "Cultural Landscape Report for Independence Square, Historical Narrative." Philadelphia: Independence National Historical Park, National Park Service. Draft April 1996. The revised outline for the National Historic Landmark Program is the National Park Service, "Thematic Framework," revised, 1994.

16. NR Bulletin 15, p. 39.

17. NR Bulletin 15, p. 39-40.

18. Toogood, 121.

19. This quote refers to an 1821 action by the City Councils as cited in Toogood, 189.

20. Paul Zucker. Town and Square, From the Agora to the Village Square. Cambridge: the MIT Press, 1970. p. 242.

21. Morton, W. Brown III. "What do we Preserve and Why?" In *The American Mosaic. Preserving a Nation's Heritage,* 170.

22. Ibid.

23. National Register Bulletin 16A: *How to Complete the National Register Registration Form*, U.S. Department of the Interior, National Park Service, Interagency Resources, Division, 1991, 4.

24. Nora J. Mitchell, "Cultural Landscapes: Concepts of Culture and Nature as a Paradigm for Historic Preservation." PhD dissertation, Tufts University, Department of Urban and Environmental Policy, 1996.

CHAPTER 3: LANDSCAPE FEATURES

INTRODUCTION

This section addresses the features of Independence Square that visually and spatially contribute to the character of the property as a whole. The qualities of a landscape conveyed by its materials, features, spaces and finishes are often termed "contributing" or "character defining".[1] Contributing features are those elements that were present in the landscape historically or are surviving replacements of historic features that give a landscape integrity. The attributes that work synergistically contributing to the integrity of a place are: historic location, design, setting, materials, workmanship, feeling, and association.[2]

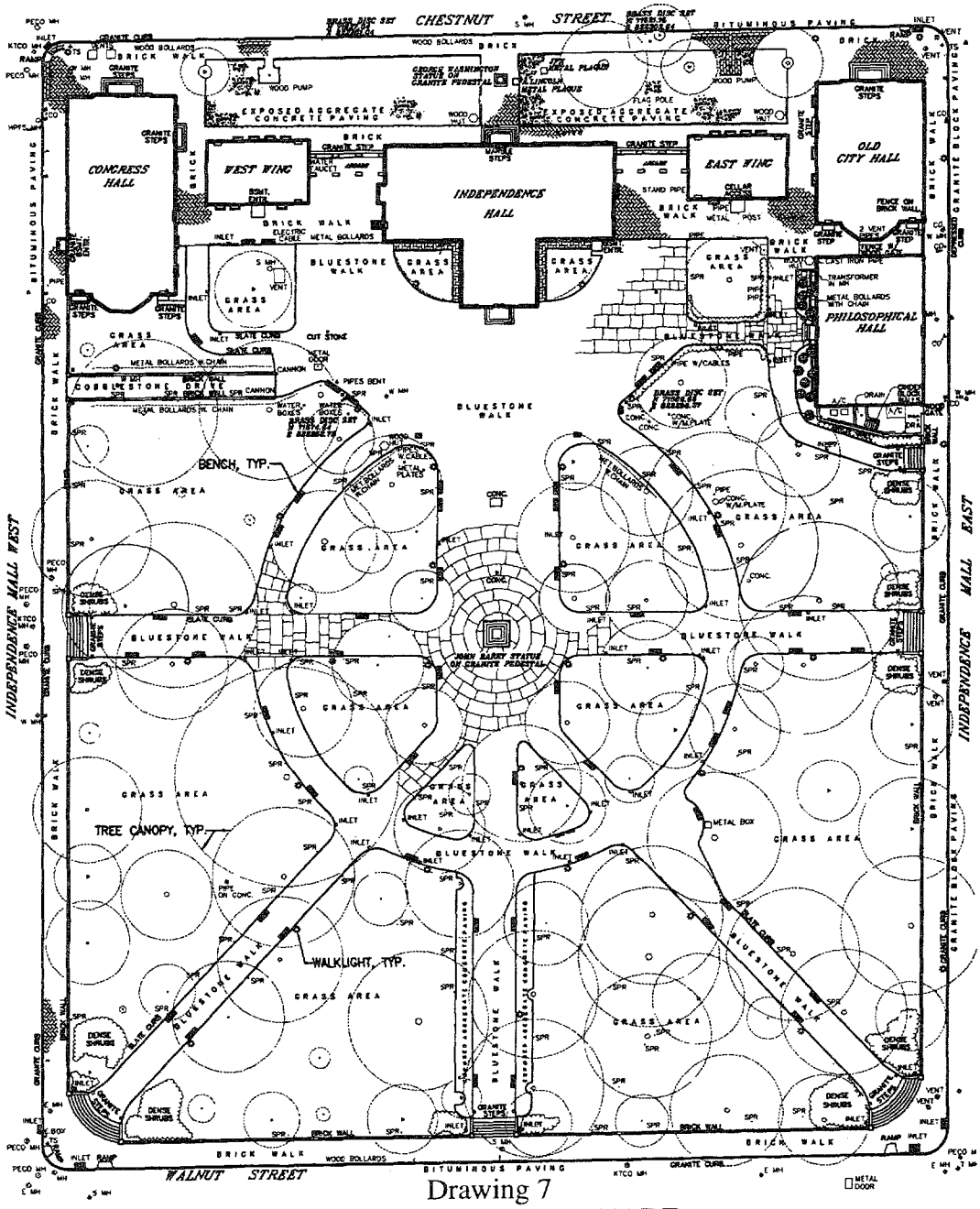
As the Independence Square landscape has evolved, many of its components have been removed while others have been modified or transformed. As discussed in the introduction, to facilitate the description and understanding of the role played by the landscape features, the square may be conceptualized as two distinct areas: the "north square" and the "south square." The north area of the square along Chestnut Street is street frontage for the buildings and creates a spatial link to Independence Mall directly across Chestnut Street. Views from the Mall terminate at the north square and the facades of the Independence Hall building complex. The brick walkway along Chestnut Street continues around the city block forming the perimeter walks of the square. South of Independence Hall is an open shaded plaza (south square) with bluestone walks radiating outward from a central statue, dividing areas of lawn planted with large hardwood trees. This pastoral, quiet space is separated from the heavy traffic on the surrounding streets by retaining walls, averaging 4 feet in height.

Linking these two areas are brick walks between buildings, either open to the sky (between Congress Hall and West Wing, and Old City Hall and East Wing) or through the arcaded walls connecting the wings with Independence Hall. Stairways provide controlled access points from street level to the bluestone walks of the south square. Although they provide a separation from the busy streets, they are not dominant features within the landscape.

The discussion of the landscape features is based on historical information as well as contemporary description. For each feature, a detailed description is given often illustrated by drawings and photographs. A background discussion follows the description explaining how the feature came about and its evolution through time. A condition assessment evaluates the feature as we see it today highlighting deficiencies that will be addressed in the Treatment Recommendations and Schematic Design portions of this report. Lastly, a statement of its significance is provided for each landscape feature.

SPATIAL ORGANIZATION

Independence Square is organized symmetrically about the north/south axis from Chestnut Street at the north to Walnut Street at the south. A row of buildings runs along the north end, centering on Independence Hall. The area along Chestnut Street ties into a perimeter walk surrounding the entire site, and into a building apron surrounding the buildings. South of the buildings is a formal square of walks, lawns and shade trees, bounded by retaining walls and stairs separating it from the perimeter walks (drawing 7).



Drawing 7

INDEPENDENCE SQUARE
EXISTING CONDITIONS

60 0 60 120

SCALE OF FEET

391/20116

Drawing 7: Today Independence Square encompasses one full city block bounded on the north and south by Chestnut and Walnut Streets, and on the east and west by Fifth and Sixth Streets, respectively.

MICROFI

Feature — Boundaries

Description: The boundaries of Independence Square are Chestnut Street on the north, Walnut Street on the south, Fifth Street on the east, and Sixth Street on the west. These boundaries constitute one full city block. The boundaries have not changed significantly since the 1769 purchase of the remaining privately owned lots on the block. However, the streets themselves have been widened over the years, and the walkways are now narrower than they were originally. Many changes have occurred around the perimeter of these boundaries. In the 1700's, the site was near the western edge of the city.

Condition Assessment: The boundaries of the site have remained unchanged since 1769.

Background: Independence Square is bounded by streets which were a part of the 1683 gridiron city plan laid out by Thomas Holme on behalf of William Penn.[3] Independence Square was originally reserved by Penn's agents as "bonus lots" given to settlers as incentives for settling larger tracts in the countryside near Philadelphia. In the original plan for Penn's new city of Philadelphia, five public squares were designated to be used as public open space, one in the center of the design, and one in each of the four quadrants of the new city: northeast, northwest, southwest, and southeast. The Independence Square block is located immediately north-east of the city's "Southeast Square", now known as Washington Square.

In 1730, the first purchase of land was made for an assembly hall for the Pennsylvania legislature. In 1732, when construction began for the provincial state house, only the northern half of the block had been purchased. By 1769, the Assembly had purchased the remaining lots, making up the entire city block. In 1770, a wall was completed around the southern perimeter of the block.

Significance: This feature contributes to the significance of Independence Square because the boundaries identify and mark the location of events relating to the entire history of the property including all relevant historic contexts. Further significance of the property's existing boundaries relates to the relationship they create between the square and the adjacent city and in their ability to fix the location of other features within the square.

Feature – Topography

Description: The topography of Independence Square is generally flat with the entrance to the square from Chestnut Street at street level, and rising gently to the buildings. Independence Hall sits on the high point of the site. South of the buildings the site remains generally level. The surrounding retaining walls maintain grade an average of 4 feet above the adjacent perimeter sidewalks.

Overall the topography creates the effect of a plinth or platform emphasizing the shrine-like qualities of the square which is primary to the experience today.

Condition Assessment: Topography remains essentially unchanged since the 1915 work. However, ground settling and tree root growth throughout the square creating surface

undulation has caused drainage problems. Specific drainage related issues are discussed later in this report.

Background: The original building site for the State House (now called Independence Hall) was situated on a small rise, with the ground sloping down to the south and southwest, resulting in the corner of Sixth and Walnut Streets being approximately 9 feet lower than the base of the tower. Following the beginning of construction for the new State House cellar, the Assembly considered a motion "that the Ground belonging to the State-house may, with the least Expence, and with all convenient Speed, be levelled, and enclosed with a Board Fence, in order that Walks may be laid out, and Trees planted, to render the same more beautiful and commodious."[4] This motion, reveals an early goal of creating a level plane for the setting of the State House. However, this goal was only realized over many years. The surface of the square at that time was very irregular, and little attention was paid to its appearance. Fill was occasionally placed in the square during basement excavation and by a nearby potter, but no organized earthwork took place until 1775.

In 1775, prompted by a growing rebellion in the colonies, soil fill was placed in Independence Square to help facilitate the storage and easy movement of cannon and munitions. Through the Revolutionary War and up until 1784, the grounds were more of a service area than a public green.

The first serious landscaping efforts for the State House Yard began in 1785, when Samuel Vaughan was hired to create a more refined setting for the State House. Vaughan's design applied the then current taste in landscape gardening and design to the grounds. The coarse textured contours of the square were soon smoothed and shaped, creating small artificial mounds for additional interest. Vaughan's walks were undulating, and not necessarily level with the adjacent ground.

In 1790, the leveling of the "footway" or sidewalk on the north side of Walnut Street further cut into the street and created the need for four additional stairs up into the square, and the square began to be perceived as an elevated ground plane when viewed from the south.

The topography of the grounds received a major redesign in 1875. This redesign was undertaken in preparation for the Centennial and included lowering the walls which bordered Walnut, Fifth and Sixth Streets from 3 feet to 1 foot in height. This required terracing the ground at the edges of the square to meet the lower height of the retaining wall. These changes in grading were largely undone by work carried out 1915-1916 under the direction of the Philadelphia Chapter of the American Institute of Architects. As specified by the AIA plan, the low stone wall in place since 1875 was removed and replaced with a brick wall 4 feet high. Soil was backfilled behind this wall to create the approximately level ground plane one experiences today.

Significance: The existing topography relates to the context of *Historic Preservation — Professionalism in the Early 20th Century*, specifically the changes in grade made to meet the new perimeter wall constructed at the direction of the Philadelphia Chapter of the American Institute of Architects. This work relates to the professionalization of the field of historic preservation in the early twentieth century.

Feature — Walls and Stairs

Description: A retaining wall interspersed with stairs is located along the perimeter of the west, south, and east sides of the square, terminating at Philosophical Hall and Congress Hall. Two sets of stone stairs, one on each side of Independence Hall, lead from the north square into the south square, through the arcaded walls connecting the East and West Wings to Independence Hall. These granite stairs run the full length of the arcades (photo 20).

The retaining wall is constructed in a Flemish bond, capped with a white marble coping stone. The base of the wall steps out slightly towards the sidewalk, incorporating molded brick forming a water table (photo 21).

Walls and stairs are inter-related to both boundaries and topography, helping to define and gain access to the spatial volume of the south square. The walls and stairs south of the buildings are not separate features but built as one, the stairs fundamental to the openings in the walls. By accommodating the elevation difference between the street and square levels, the stairs provide a graceful entry and clear signal to users that they are entering a special public space.

There are eight openings in the wall for entries into the square, with all but two having stone stairs. The entry south of Congress Hall is for the cobblestone driveway (see below). The gated entry just south of Philosophical Hall provides access to a service area behind the building. A brick pier sits on each side of all the openings in the wall. The wall then turns the corner, and terminates where the grades of the drive or walk meet the soil level (photo 22).

Entry stairs are located at the southeast and southwest corners of the square as well as mid-block on Walnut, Fifth and Sixth Streets. The stairs are constructed of white marble and are flanked by brick wing walls with a white marble coping (photos 23 and 24).

The brick piers extend above the height of wall, and are capped with marble finials or ornamental tops. The brick wall and marble coping curve upward to meet the corner piers. Three styles of finials are present on site. The finials at the cobblestone drive are ball finials. The entry south of Philosophical Hall has ball finials which look the same, but are a slightly different size. The rest of the entries have newer finials, similar, but with a ball pierced by a square plane. Piers flanking the gated entry behind Philosophical Hall have simple copings (photos 25 through 28).

The underside of the marble coping stone has two shallow grooves, presumably providing a drip edge. The coping appears to have been only mortared in place with no indication of dowels or anchors used as fasteners.

Site investigations verify the research indicating that the vitrified clay pipe lateral drain and cast iron weep holes, included originally in the 1915 contract documents, were deleted at the time of construction. The walls have acinder drainage fill along the bottom 2 feet, but no drainage tile. The wall and pier footings are concrete pads which bear on an old stone footing which was in place before the present wall was built. The pier footings are only slightly wider than the base of the pier (drawing 8). The piers are freestanding, and are only mortared to the walls. Weep holes occur approximately every 30 feet on center by means of a "missing brick" (photo 29).

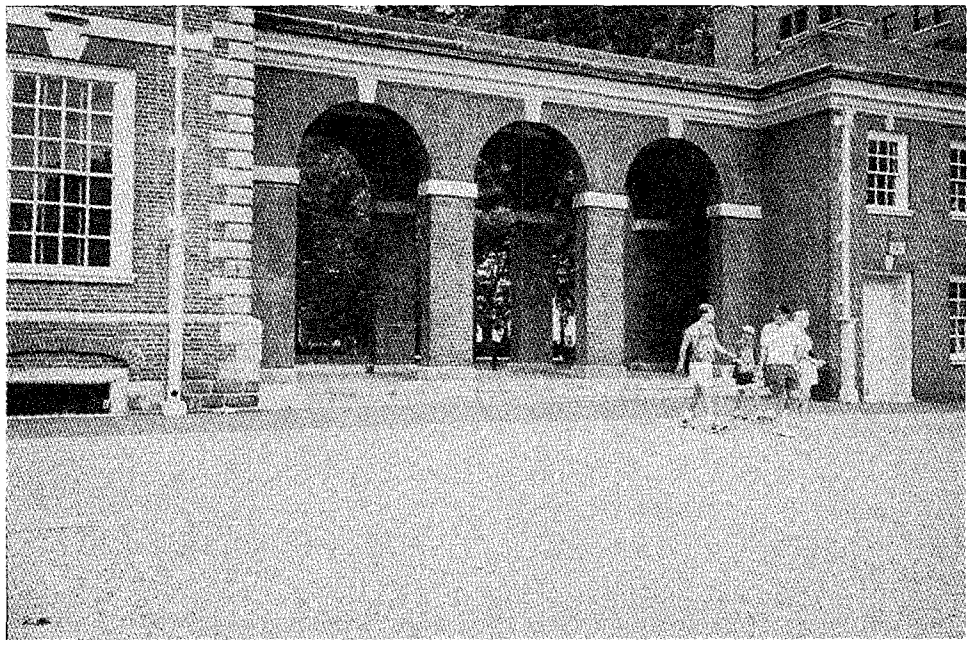


Photo 20: Granite stairs run the full length of the west arcade connecting Independence Hall with the West Wing.

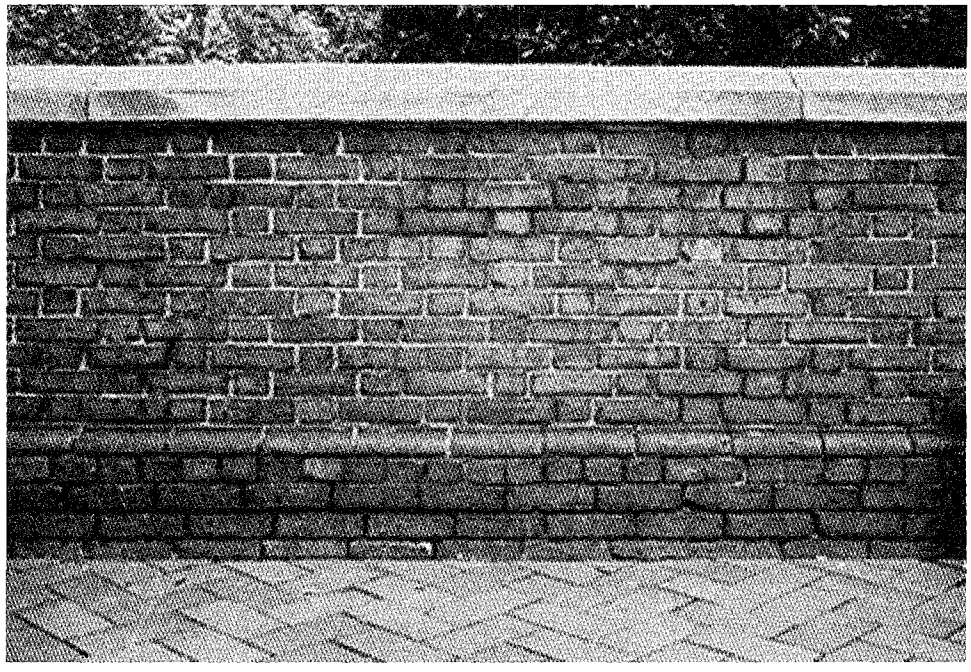


Photo 21: Brick retaining wall enclosing much of Independence Square. Note the white marble coping, Flemish bond, and molded brick water table at the base of the wall.



Photo 22: Brick pier at north side of cobblestone driveway.

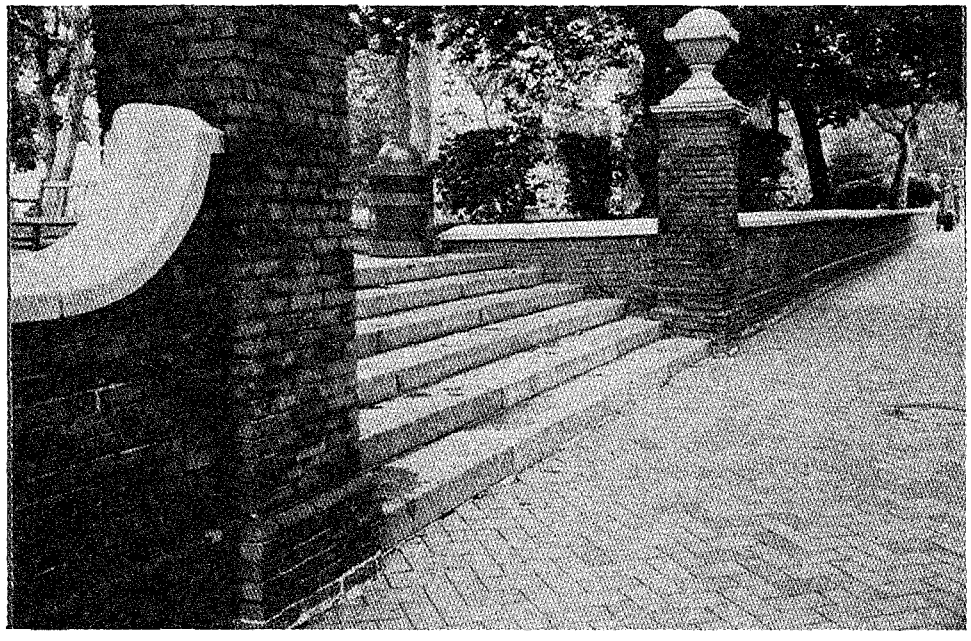


Photo 23: Central stairway along Walnut Street with brick piers flanking the marble steps. Note how brick wing wall meets grade at the top of the stairs.



Photo 24: Curved stone stairway, typical of the east and west corner entrances to the south square along Walnut Street.



Photo 25: Ball finial atop piers at cobblestone driveway.

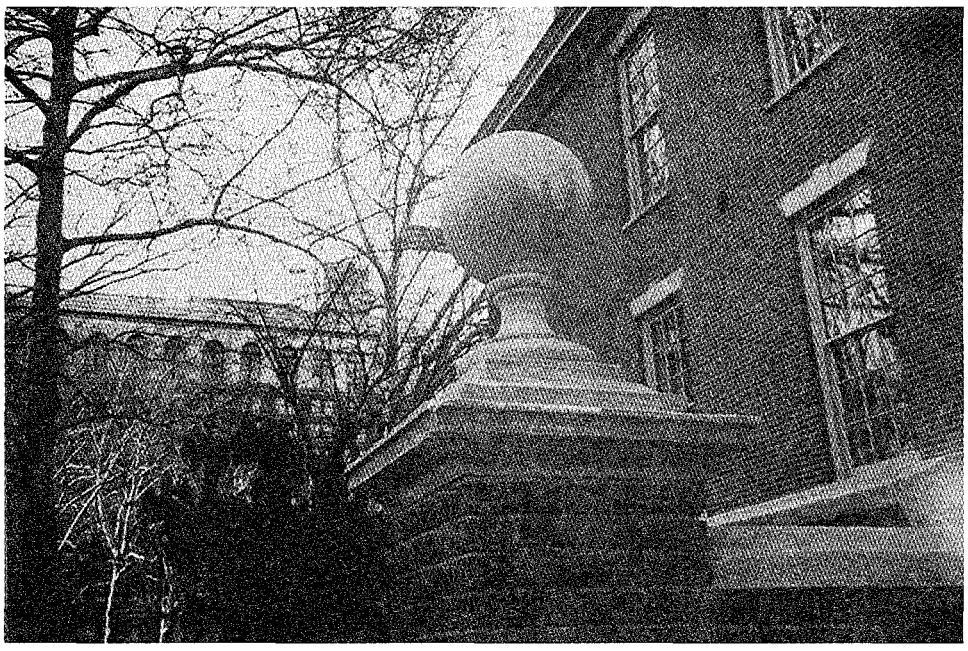


Photo 26: Newer ball type finial is somewhat larger than those found on the piers at the cobblestone driveway.

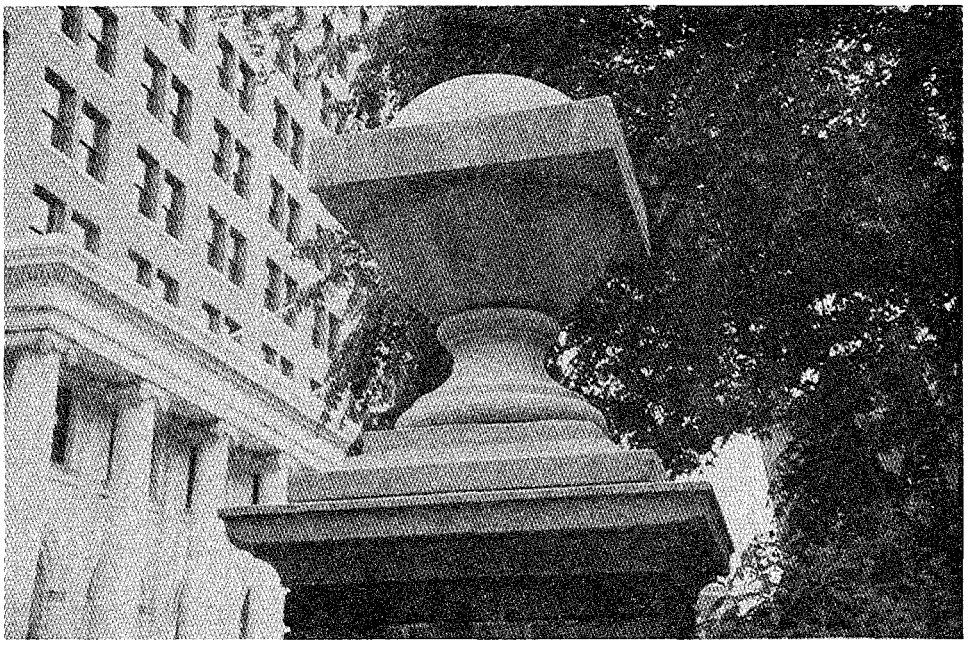


Photo 27: Ball pierced by square plane finial.

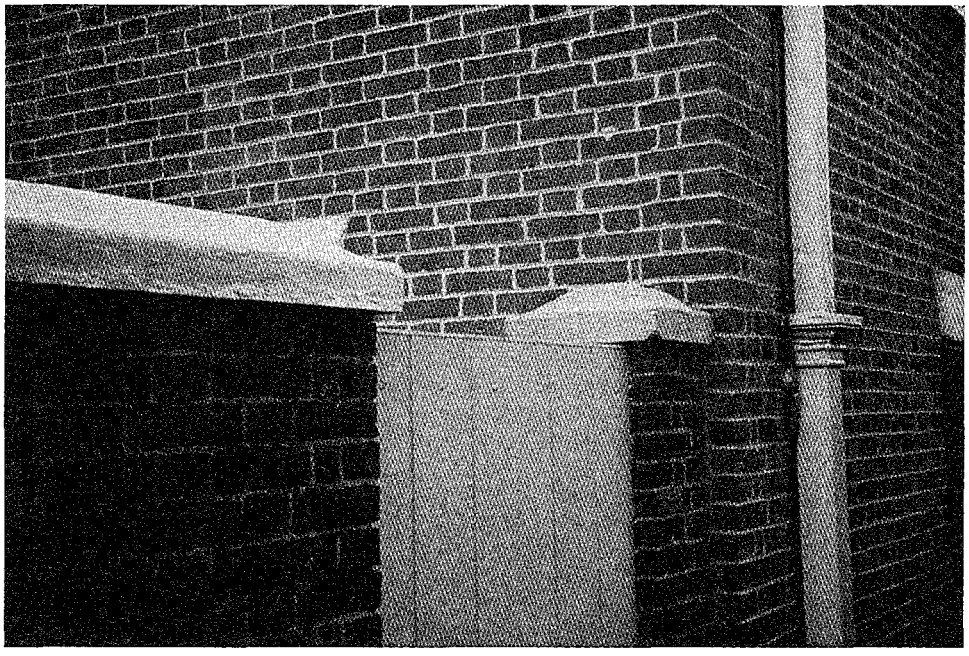
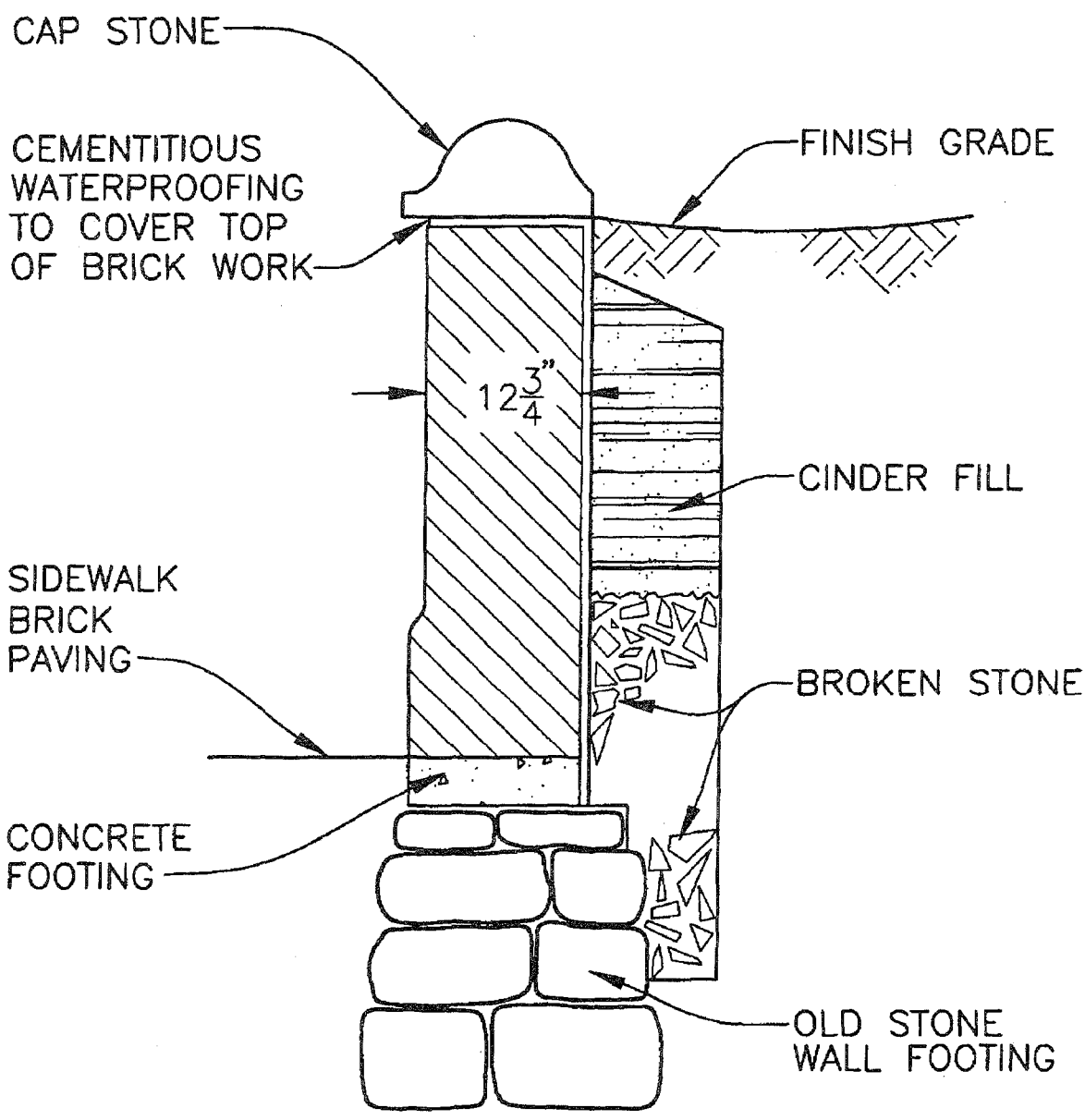


Photo 28: The brick piers behind Philosophical Hall have simple marble capstones matching the marble coping of the brick perimeter retaining wall.



Photo 29: Typical "missing brick" style weep hole occurs every 30 feet along the base of the brick perimeter retaining wall.



BRICK RETAINING WALL–TYPICAL SECTION

NO SCALE

Drawing 8

391/20117

Drawing 8: Excavations verified that the brick retaining walls were backfilled with cinder fill and broken stones. Weep holes provide drainage for water behind the walls.

Condition Assessment: The stairs in the north square are in good condition.

The brick masonry retaining walls are in good condition, showing little sign of movement, and are straight and plumb. Some cracking is evident, especially near the piers. The weep holes along the bottom of the wall are not functioning well, and drainage seeps through the walls at various locations, especially near the corner piers.

The masonry piers are not tied to the walls with reinforcement, and almost all have rotated and/or moved outward away from abutting walls, leaving gaps ranging up to 1-1/2 inches wide. This is likely caused by the freezing and thawing of water in the crack between the wall and pier. Mortar has been used to patch gaps, but this has done little to inhibit additional movement. This pier rotation has resulted in cracking of the abutting walls and brick at the base of the piers.

The marble coping stones show significant movement as a result of water infiltrating the mortar setting bed. Some of the edges of coping stones have chipped but in general, the coping stones are in good condition.

The ball finials at the end of the cobblestone drive and the central stairway on Sixth Street appear to be older and more weathered than the others, with cracks and chips evident in their bases. The finial on the column at the north end of the cobblestone driveway is leaning slightly. Although some chipping is in evidence, finials at stairways appear to be in good condition.

The stairs are in excellent condition. Beneath the center stairway entry along Sixth Street voids are evident, suggesting the subgrade has settled or otherwise eroded. Voids are less evident under the other stairways.

A full report of the structural condition of the wall is attached at the end of the document (appendix C).

Background: The State House yard was completely enclosed with a wall for the first time in 1770. The historical narrative indicates that this first wall was 7 feet in height and to a great extent constructed of brick. This type of high wall was characteristic of many private lots, school yards, the Pennsylvania Hospital, and several churchyard cemeteries in the city. Walled private spaces such as these provided Philadelphia's elite with settings where they could temporarily escape the city's often unhealthy and dangerous environments as well as avoid its largely uncultivated population.[5]

It appears that these walls did indeed closely control access to the State House yard, at least until after 1790 when the Columbian Magazine noted that, "These gardens will soon, if properly attended to, be in a condition to admit on our citizens indulging themselves, agreeably, in the salutary exercise of walking."[6]

Soon thereafter, the high wall fell into disfavor, and petitions began to circulate to lower the wall so that those passing by on the streets and footways would benefit from better air circulation and the pleasant view of the green open space. A 1791 act authorizing the lowering of the wall to 3 feet in height was not realized until 1812. At this time the wall was lowered, capped with a marble coping and surmounted with an iron palisade fence. Work

also included the installation of narrow entries on the east and west sides of the square, adding to the existing Walnut Street gate.

Additional iron palisade fencing was installed during 1832 immediately south of the State House, apparently to control access to the building environs after official visiting hours.[7] The square was further subdivided with iron fencing in 1867 after the construction of the New District Courthouse in 1866. This interior fencing was apparently removed as part of restoration efforts of the late 1890's soon after the city's offices moved to their new quarters in Philadelphia's "Center Square."

The perimeter walls surrounding the east, south and west sides of Independence Square were again lowered in 1875, this time to 1 foot in height. This work was undertaken in preparation for the Centennial celebration of the signing of the Declaration of Independence taking place the following year.

Forty years later, in 1915 the perimeter walls were again redesigned through the efforts of the Philadelphia Chapter of the American Institute of Architects, and attained their current configuration and height. Notes prepared by the AIA on "Improvements to Independence Square" indicate that restoration of the walls to their original 7-foot height was considered, yet dismissed as inappropriate. The current configuration of the walls and stairs were designed in sympathy with the common building practices and typologies in use during the 18th century. The AIA designers took as their model the churchyard walls adjacent to St. Peter's church and other old walls then extant in the city of Philadelphia. This 1915 redesign made use of existing cut stone stairs dating to the 1875 Centennial plan for the square. The 1915 AIA design terminated the walls at these existing stairs, using brick piers surmounted with marble ball finials as end pieces.

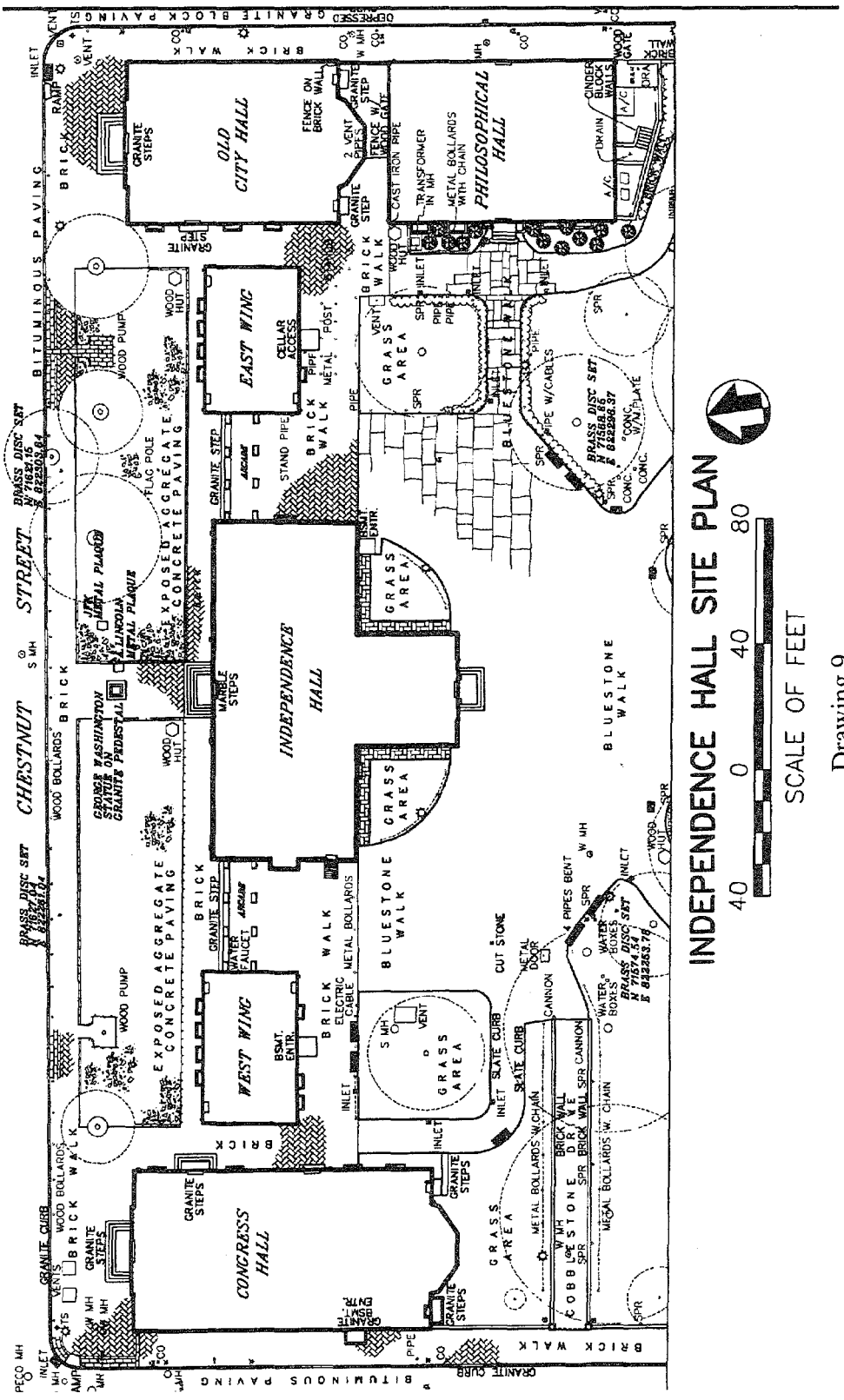
During the 1960's, Independence National Historical Park's plans to restore the walls to their 1770-1812 7-foot height were scuttled by political pressure from neighboring insurance companies.[8]

Significance: The significance of the property's perimeter walls and stairs relates to the area of *Historic Preservation — Professionalism in the Early 20th Century*, including the work of the Philadelphia Chapter of the American Institute of Architects.

Feature — Independence Hall Building Complex

Description: The combined buildings of the Independence Hall group include, from west to east; Congress Hall, West Wing, Independence Hall, East Wing, Old City Hall and Philosophical Hall (behind Old City Hall). These buildings have been well documented in historical studies and are not considered in detail here except as elements in the landscape. The buildings on Independence Square traverse the entire block from Sixth Street to Fifth Street between the perimeter walks. The front facade of Independence Hall is set back approximately 50 feet from the southern curbing of Chestnut Street. These buildings and the arcades which connect them create a street wall along Chestnut Street, which effectively blocks the square behind the buildings from view (drawing 9).

The creation of this dense grouping of buildings along Chestnut Street helped to carry out the intention of Pennsylvania's provincial assembly, the members of which voted in 1736 that



Drawing 9: The Independence Hall complex of buildings is set back approximately 50 feet from Chestnut Street. These facades essentially create a wall along the street blocking views into the majority of the square south of the buildings.

the grounds south of the State House as it was then configured should "...remain a public open green and Walks forever." This measure on the part of the Assembly helped to initiate one of the earliest designed public landscapes in North America.

As a contributing feature, the relationship of the Independence Hall group of buildings to its landscape setting only applies to within the boundaries of Independence Square. The relationship of buildings to landscape outside the boundaries of Independence Square represents a contemporary situation and cannot be considered a contributing feature of the square's landscape.

Condition Assessment: As noted in the background, the decision was made in 1736 that no buildings be constructed south of the State House, now called Independence Hall. Exceptions to this decision have been made over the years, but of these Philosophical Hall is the only building which remains in this space south of Independence Hall.

Background: At the time construction for the new State House was begun, the area was located at the edge of town, its landscape lightly settled, and the adjacent forest cleared only as far as Broad Street. In 1734, with the State House unfinished, the assembly held its meetings in one of the houses on the State House square adjoining the construction site. This and other small buildings on the northern half of the block were razed when the Assembly moved into the State House the following year.

During 1736, the Assembly restricted the future use of the newly cleared property. It was at this time the Assembly voted "That no part of the said ground lying to the southward of the State House as it is now built be converted into or made use of for erecting any sort of buildings thereupon, but that the said ground shall be enclosed and remain a public open green and Walks forever."

Of course, encroachments were made on the square, most notably for Philosophical Hall. The American Philosophical Society was granted a building site southeast of the State House in 1785, and its building today remains in the private hands of that group. The construction of the New District Courthouse in 1866 represented another violation of the 1736 directive, yet was remedied in 1901 when the building was torn down. Privies were examples of small buildings located in the square south of Independence Hall at various places during its history. These small buildings are no longer a part of the landscape, but once were an important, oft-criticized element of the building complex until they were abandoned with the advent of modern plumbing.[10]

Significance: The significance of the buildings located within the boundaries of Independence Square contribute to all historic contexts evaluated in this report.

Feature — Views and Axial Relationships

Description: The entrance and central walkway on Walnut Street occupies an axial relationship with the bell tower of Independence Hall, dividing the property into two symmetrical halves. There is a direct view of the building from the Walnut Street entrance along this axis. The Barry Statue now stands in the center of this view (photo 30).

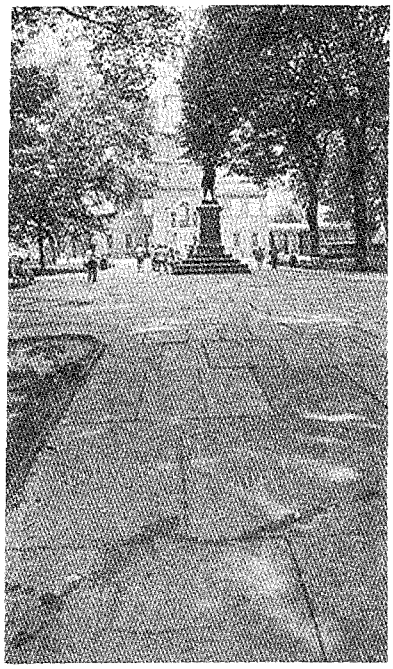


Photo 30: Commodore Barry Statue situated along the axial bluestone walk south of Independence Hall.

The north-south axis continues on the north side of Independence Hall, with the George Washington Statue centered in front of the building entrance, and on through Independence Mall with the current Liberty Bell Pavilion centered on the same axis (photo 31).

On the north side of Independence Hall, the important view is that of the building from the mall across from the square. The view north from Independence Hall has varied greatly over the years, and is therefore not contributing.

Condition Assessment: The view from Walnut Street to Independence Hall along the central axis survives from the eighteenth century Vaughan design. The Barry Statue diminishes the view, but maintains balance along the axis. The widening of the central walkway between the Barry Statue and the Independence Hall tower helps to widen the central view, but does not entirely mitigate the placement of the statue in that view. The strong central axis survives.

The central axis is carried through the north side of the building, and through the first block of Independence Mall. Although views of the buildings from the first block of the Mall have varied greatly over the years, and Independence Mall has been found not to be historically significant, the current symmetry in the Mall serves to reinforce the symmetry around the central axis on the square north of Independence Hall.

Background: In 1732, the decision to place the State House at the center of the block between Fifth and Sixth Streets neatly divided the square into two symmetrical halves. This geometry was reinforced in 1750 with the construction of the bell tower as a vertical element, and again in 1769 when it was noted that one of the expensive features of the new brick wall was a grand gateway on Walnut Street. Vaughan's 1785 plan linked the tower and the Walnut Street gate with a broad central walk connecting the two points with a straight line. Double

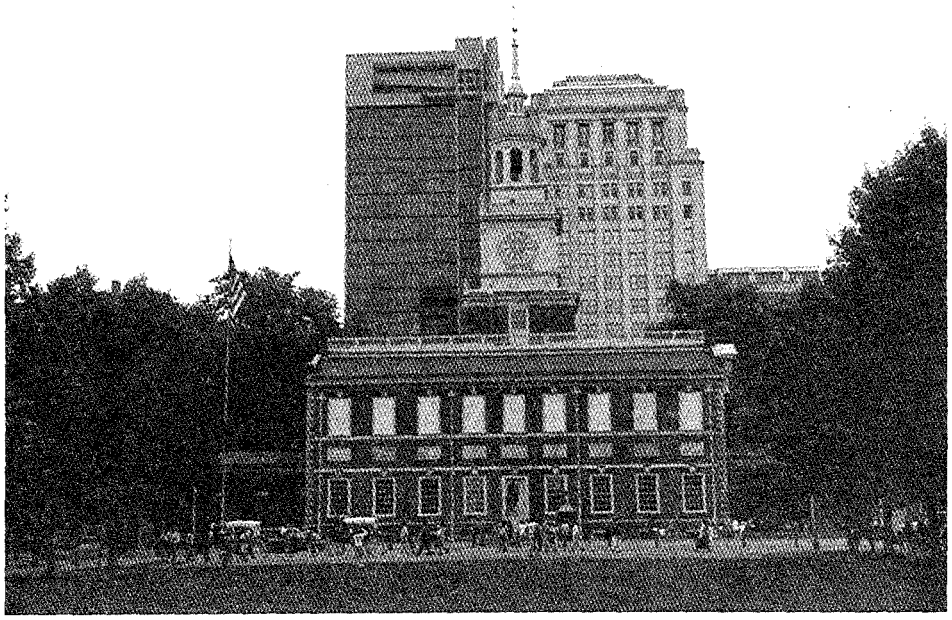


Photo 31: Statue of George Washington located along Chestnut Street in front of the entrance to Independence Hall.

rows of trees on either side of this central walkway reinforced the dignified axiality of the Walnut Street approach. In 1865, this strong axiality remained in place while Abraham Lincoln's catafalque made a sober progression down the central walk from Walnut Street to lay in state in the "Declaration Chamber" of Independence Hall.

In the 1875 redesign of the site, in preparation for the nation's centennial celebration, a radial pattern was introduced for the walkways in hopes of creating a central site for a monument to the thirteen original states. This large monument never came to pass, and the circular plot remained vacant.

In 1907, the city accepted as a gift a bronze statue of Commodore John Barry, a naval hero during the Revolutionary War. The placement of this statue in the central walkway was bemoaned by the Philadelphia Chapter of the AIA in 1914, writing, "the broad avenue which formerly led from the tower door of the State House to the central entrance on Walnut Street and which in former times afforded the interesting vista that the statue has in great measure destroyed."[11] The AIA plan attempted to mitigate the placement of the Barry Statue by widening the central bluestone walkway north of the statue, as well as eliminating four small grass islands within the bluestone walkway. Gravel was used to continue the widening along this axis south of the statue. In 1769, soon after the "back lots" adjoining the State House property to the south were added to the State House holdings, there emerged some interest in providing a more dignified setting for the building when viewed from the north. While other priorities of the day prevailed, this idea merely lay dormant. In 1928, the possibility of clearing an area north of Independence Hall was again seriously considered when architect Paul Cret made designs for the first block north of Independence Square. Thus began a

contentious campaign for the creation of both Independence National Historical Park and Independence Mall State Park, the latter of which reached completion in 1967. The result, which well represents many urban renewal initiatives of the 1950's, involved clearing several blocks of the city north and east of Independence Square of 19th and 20th century buildings.

Significance: Extant views and axial organization of the site is a major surviving element from pre-Vaughan landscape and contribute to the earliest context, the Founding and Growth of the United States. These elements have been consciously retained throughout all later periods and alterations, therefore contributing to all historic contexts.

CIRCULATION

Overview — Pedestrian Circulation / Accessibility

Description: Pedestrian circulation at Independence Square is defined by the many walks and stairs on the site. Brick walks form the perimeter of the site, with the sidewalk along Chestnut Street widening out at the building entries. Pedestrian links from the north square to the south square are through arch walled stairways between Independence Hall and its wing buildings, and along brick walks between the wing buildings and Old City Hall and Congress Hall.

Curb ramps are located at the four corners of the city block, with the brick paving warping down to meet curb cuts. There are two ramps at each corner (photos 32 through 34).

Current wheelchair access to the buildings is accommodated by moveable fiberglass ramps set in place as needed by park rangers. To maneuver these ramps most wheelchair users require assistance (photo 35).

Fixed access ramps have been designed for Independence Hall, Old City Hall, and Congress Hall and at the time of this writing are awaiting contract award (Appendix F).

Condition Assessment: Pedestrian access from the perimeter walks to the south square is via stairways and via the cobblestone driveway. Most of these are not accessible for wheelchair users, nor do any of them have handrails.

Only the two brick walks adjacent to Old City Hall and Congress Hall are barrier free. The cobblestone drive, although providing access for pickup trucks and fire equipment, is far too rough a material for mobility impaired individuals to navigate easily.

Grades on the paved surfaces are within the 5% maximum grade allowed by ADA. The exposed aggregate paving and most of the brick paving is within ADA parameters for surface texture. There are many areas in the bluestone paving where the surfaces of abutting stones differ by more than the 1/4 inch in height allowed by UFAS and ADA. However, wheelchairs have been used on the area, usually with assistance.

The weathered granite stone stairway entries to the building are potentially hazardous for visually impaired individuals, as there is little color or textural contrast between tread edges and surfaces. However, at Independence Hall there is a slight change of texture between the



Photo 32: Cut granite stone curb ramp.

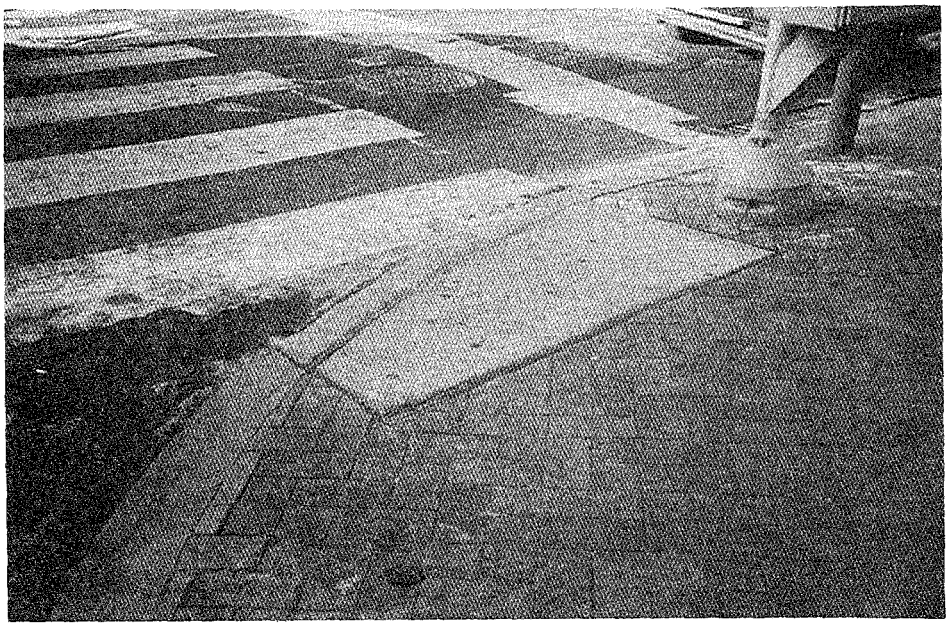


Photo 33: Concrete curb ramp is incompatible with adjacent stone curbing and brick paving.



Photo 34: Granite curb was ground down creating a flush joint with the street paving.

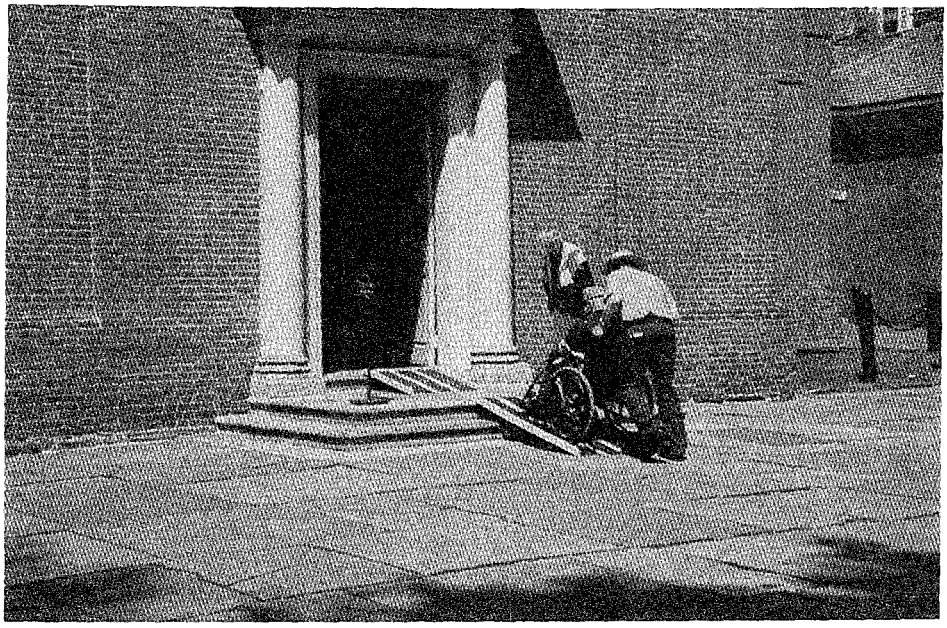


Photo 35: Moveable ramps providing disabled access to Independence Hall first floor.

stone pavers and stair treads that may be discerned by cane users. The only stairs with hand railings are at Philosophical Hall, and these railings are not built to current code.

Curb cuts occur at the four corner intersections where pedestrian crossings are appropriate. However, a greater than 1/4-inch change in grade from the stone curb cut to the street occurs in several locations, failing to meet current UFAS and ADA guidelines. Some of the placements of curb cuts are not aligned with the cross walks, and therefore do not function well.

Background: The Architectural Barriers Act (ABA) (Public Law 90-480), passed in 1968 and amended in 1984, requires that buildings built with federal funds be "so designed and constructed as to be accessible to the physically handicapped." This includes structures which are altered by the government. Therefore, in conjunction with the utilities improvements on buildings in Independence Square, accessibility is being studied. The Uniform Federal Accessibility Standards (UFAS) (49 FR 31528) provide design standards for meeting the accessibility requirements in the ABA.

Section 504 of the Rehabilitation Act of 1973, as amended, "prohibits discrimination on the basis of handicap, in programs or activities conducted by Federal executive agencies." In 1985, Rule 43 CFR Part 17 requires enforcement of nondiscrimination on the basis of handicap in Department of Interior programs, which includes the National Park Service. This requires the interpretive and other programs to be made accessible as well as the facilities.

NPS Management Policies for cultural resource management (Chapter 5, Page 14), state that "The National Park Service will provide the highest feasible level of physical access for disabled persons to historic properties, consistent with the preservation of the properties' significant historical attributes. Access modifications for disabled persons will be designed and installed to least affect the features of a property that contribute to its significance.

Significance: Some impairment of some features will be accepted in providing access. If it is determined that modification of particular features would destroy a property's significance, however, such modifications will not be made."

In 1990, the Americans with Disabilities Act (ADA) was passed, paralleling the Architectural Barriers Act and Rehabilitation Act for non-Federal facilities. The Americans with Disabilities Act Accessibility Guidelines (ADAAG) closely parallel the UFAS for Federal facilities. Although regulations mandate that the Federal Government follow UFAS, there were some refinements made in the ADAAG, and it is generally recommended to design to whichever standard is more stringent or provides the better accessibility.

In December 1996, Independence National Historical Park produced a draft Accessibility Plan, with the goal of providing employees and visitors with "the highest level of accommodation" consistent with NPS and INHP missions and legislation, and with the "least impact on historic fabric". This document identifies deficiencies in access and circulation to Independence Square, and program elements for visitors with disabilities. Possible solutions to access deficiencies are developing an access route from the south side of the square, and resetting the bluestone pavers so that no abrupt changes in grade occur in excess of 1/4 inch.

Among the design parameters for an accessible route, the following apply to Independence Square: maximum grade of 5% unless there are landings and handrails, maximum height

difference in abutting surfaces of 1/4 inch (bluestone, brick, etc.), color and texture change to indicate stairs or ramps, and signage for accessible routes.

Significance: Contemporary modifications facilitating universal accessibility have not been found to be historically significant.

Feature — Streets

Description: Independence Square is bordered by four city streets: Chestnut Street to the north, Sixth Street to the west, Fifth Street to the east, and Walnut Street to the south. Chestnut, Sixth, and Walnut Streets are currently paved with bituminous concrete (asphalt). Fifth Street is paved with "Belgian block" pavers. All streets are owned and maintained by the City of Philadelphia (photos 36 and 37).

The street edge consists of a granite curb, 6 inches wide, flush with the brick sidewalk paving and 3 to 4 inches higher than the current street surface. The street is sloped, carrying surface water to the drain inlet system along the curb. Curb stones are cut at crosswalks, forming a warped surface for curb ramps.

While owned and managed by the City of Philadelphia, and outside the boundary of Independence Square, the city streets which bound and define the square are an important part of the landscape setting. The busy and often crowded movement of vehicles through these streets connects Independence Square to the life of the city, a continuity of use that has been in place for over 260 years.

Condition Assessment: The street surfaces are in generally average condition. Some pot holes, cracking, rutting, and other irregularities typical of center city asphalt roadways are evident. Curbing is in generally good condition, with occasional stones knocked out of alignments by vehicles. Due to repeated overlays of the asphalt paving in the streets, the curb reveal is no longer the 8 inches it was designed to be, but is only three to 4 inches, which is not sufficient to stop a car tire. Curb cuts are uneven through the curb stones, and thereby deviating from accessibility standards. Metal edging on curb drain inlets has been crushed by vehicles causing the brick paving to come apart.

The belgian block paving found on Fifth Street creates an unsafe walking surface at the crosswalks. People with wheelchairs, baby strollers, bicycles and high heels have difficulty traversing the blocks.

Background: Originally laid out in 1683, Philadelphia's streets have had a variety of surfaces throughout their history. At the time the State House was being constructed during the 1730's, Philadelphia's streets were unpaved and often impassable. During inclement weather, the poor condition of the roads hampered traffic with mud wallows and ruts. During the dry season, traffic kicked up dust from the roads obscuring sight and coating carriages and travelers alike. In addition, it was common practice to dump garbage in the streets for the benefit of free-ranging hogs.[12]

In 1762 the city began a widespread municipal program to pave city streets, requiring adjacent property owners to pave the "footway" in front of their holdings at the same time. It



Photo 36: View of Chestnut Street north of Independence Hall.

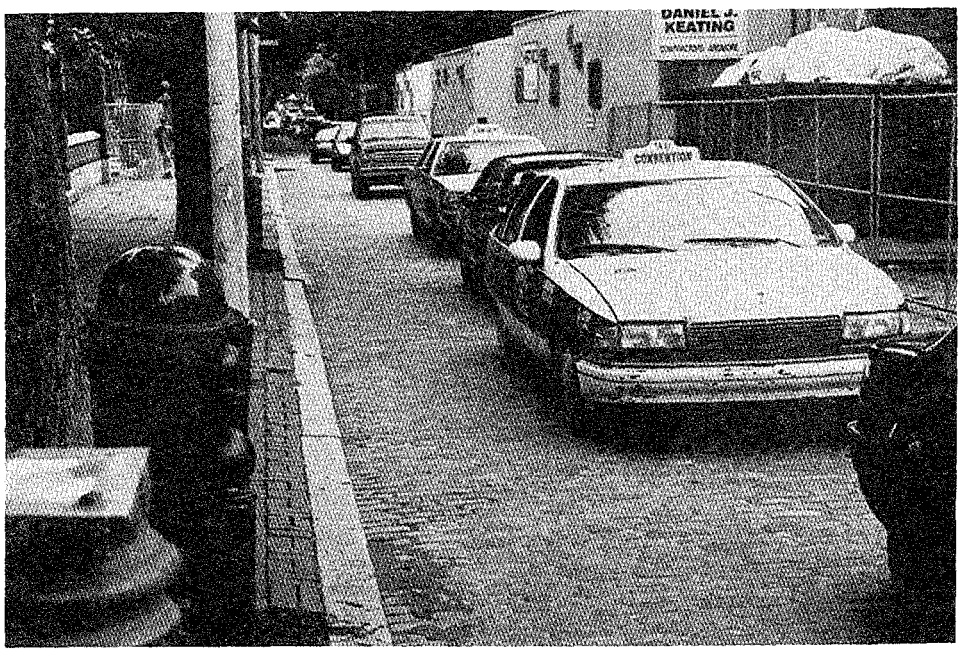


Photo 37: View of Fifth Street looking south from Chestnut Street.

is unclear whether or not this early effort made it as far west as the State House Yard which was then on the western edge of the city.

In 1795, a new style of paving was described in a Pennsylvania Gazette: "...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 s no longer necessary."[13] The exact method of construction of these early paving surfaces is unclear.

By 1831 authorization had been given to "Macadamize" Chestnut Street between Fifth and Sixth Streets.[14] This technique was named for John Louden McAdam, a Scottsman who greatly advanced the technology of road building in the early nineteenth century.[15] The first "macadam" road in America was completed in 1823 in the State of Maryland. The technique prescribed a crowned subgrade surfaced with a system of successive layers of relatively small stones, generally smaller than 2 inches in size. A final layer consisting of a mixture of smaller stone sizes was applied last such that it would pack together and provide a water resistant surface.

In 1858 a trolley system was added to Philadelphia's busy streetscape. By this time, streets in the vicinity of Independence Square had been paved with "blocks of hammered stone", almost certainly what we know today as "Belgian block." This surface, typically a mix of Belgian block or brick, prevailed for over 100 years.

Chestnut Street was widened in 1954 on its northern side as part of the Independence Mall State Park project taking place during that time. Later, during 1967, Chestnut Street was paved with asphalt concrete, after complaints of the unkempt appearance of the trolley tracks and brick surface. The Belgian block surface on Fifth Street was restored by the Pennsylvania Department of Transportation in the 1990's.

Significance: Streets and street life are key elements in establishing the historic *setting* of Independence Square. These features contribute to all historic contexts identified in Chapter 2, in particular the Founding and Growth of the United States and Philadelphia, Capitol City.

Feature — Chestnut Street North Square

Description: Paving in the north square consists of two large, exposed aggregate panels bounded by different patterns of brick paving. The panels are separated by a herringbone brick walk leading up to the entry stairs of Independence Hall. A single stretcher course of brick acts as an edging for all brick adjoining the exposed aggregate. Set within each exposed aggregate panel is an area of running bond brick providing a setting for period replica water pumps.

Adjacent to the granite curb and abutting the exposed aggregate on the north is a brick sidewalk that incorporates a section of herringbone pattern with a band of five stretcher courses and six running bond courses intended to resemble the historic . This band of running bond and stretcher coursing follows along the stone Chestnut Street curbing and

turns the corners of Sixth and Fifth Streets, terminating in a line parallel with the front facades of Old City Hall and Congress Hall (photos 38 through 41).

Treatment of the triangular spaces formed when the herringbone patterned brick meets adjacent pavement is inconsistent. Adjacent to the exposed aggregate paving, the triangles are filled with more exposed aggregate concrete and edged with a stretcher course of bricks. In areas where the herringbone is bordered by the running bond brick, both cut brick pavers and trowel finished concrete have been used to fill in the triangular spaces.

Three trees, remnants of the double row allee, are located in tree pits set into the pavement. The north square is furnished with modern interpretive and directional signage, modern street fixtures, and reproduction 18th-century elements including period water pumps, lighting, wooden bollards, and watchboxes. Contemporary street fixtures include traffic signs and signals, steam vents, fire hydrants, and manhole covers (photo 42).

Condition Assessment: The north square is in poor condition. Only three trees remain from the double row allee. The exposed aggregate paving shows many cracks and patches. Brick pavers are in good condition, except along the street where cars have driven on and broken them. Some light fixtures have been removed, and some of the bollards have been hit by cars. The street has been repaved, so that the granite curb is only 3 inches high in places. The overall appearance is somewhat stark.



Photo 38: Running bond brick pattern symbolizes the open gutter that historically ran along Chestnut Street.

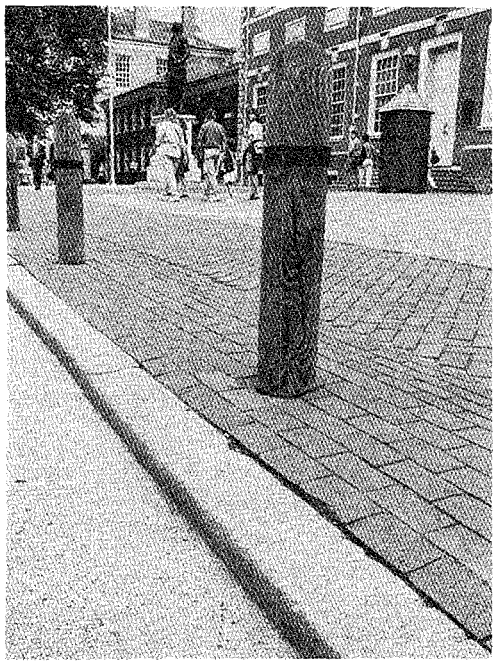


Photo 39: Running bond and herringbone patterns of brick paving and the adjoining exposed aggregate paving.

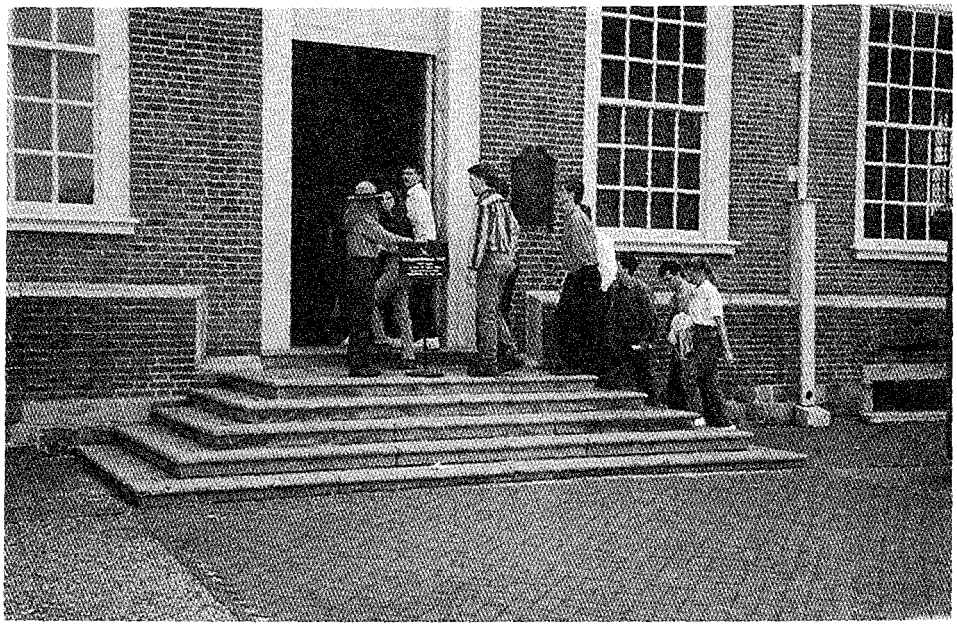


Photo 40: Independence Hall brick herringbone pavement entry approach.



Photo 41: Brick paving patterns which symbolically articulate the base of the water pumps located along Chestnut Street.

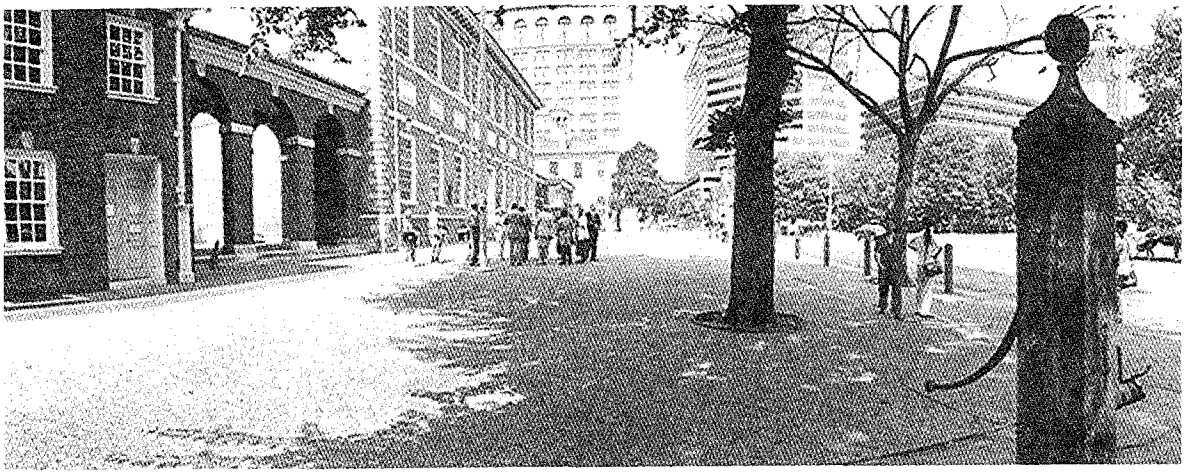


Photo 42: North square view looking west along Chestnut Street. Note the exposed aggregate paving, the remaining trees, and site furnishings including the period water pump in the foreground.

Exposed Aggregate Pavement — The paving includes several areas with visible joints where the surface was filled when trees were removed. Since the quality of these patches vary, the tree planting pattern remains evident due to the highly visible joints. Mortar used to fill cracks is lighter in color and smoother than the surrounding paving. The exposed aggregate paving is in poor condition with extensive cracking and settlement. There are several long cracks, particularly in narrow areas between the brick paving and tree wells or other changes in materials. Cracks in particular radiate out from the corners of the John F. Kennedy Plaque. Several concrete patches inconsistent with the original material are evidence of repairs made since its installation (photos 43 and 44.)

Brick Pavement — The brick pavement is in generally good condition. There are occasional broken bricks. A few loose bricks are more than 1/4 inch higher or lower than the adjacent pavers creating potential tripping hazards or difficulties for wheelchair users.

Background: The brick and exposed aggregate plaza fronting Chestnut Street was installed in 1974, a reconstruction project undertaken in preparation for the nation's Bicentennial (figure 20). The work, including the turned pine bollards, reproduction hand pumps and watchboxes, was informed by graphic and archeological documentation of conditions present c. 1800. Exposed aggregate concrete paving, referred to as "pebblestone" on the reconstruction plans, was used in place of gravel (photos 45 and 46).

Exposed Aggregate Pavement — Construction drawings indicate 4 inches of exposed aggregate on top of a 6-inch "sand-clay cushion" placed above the historic paving.

Brick Pavement — A band of running bond runs along the stone curbing of Chestnut Street, and curves around the corners at Sixth and Fifth Streets to the line of the front of the corner buildings. The pattern, designed to represent the old , consists of six courses adjacent to the curb laid flat, followed by five courses set on edge. A herringbone pattern is used in most areas, with running bond as an accent. A single stretcher course of brick provides an edge for the brick adjoining the exposed aggregate. Herringbone pattern also articulates the entrance to Independence Hall, and two period replica water pumps within the exposed aggregate pavement.

Construction details show 4" x 8" x 2-1/4" wire cut brick pavers on a 1-inch mortar bed, on a 6-inch concrete base. A sand cushion protects the historic paving which remains underneath.

Prior to Bicentennial reconstruction efforts, the surface of the north square on Chestnut Street had been of flagstone, consistent with the treatment of the walkways south of Independence Hall. The flagstone surface was installed in the 1870s and itself had replaced an earlier pavement of brick. Prior to the introduction of brick sidewalks or "footways" in the 1780s and 1790s, the historical narrative suggests the square's perimeter walks, including the Chestnut Street frontage, were surfaced with gravel. [16]

Most of the colonial style lamps placed along the sidewalks during the 1915 AIA rehabilitation of the square were removed in 1958, however, several are remaining.[17]

Significance: The widened north square separating Independence Hall from Chestnut Street provides the immediate *setting* for Independence Hall and relates to the *architectural* expression of the buildings and their placement on the square.



Photo 43: Patching of old tree well within area of exposed aggregate paving.



Photo 44: Example of cracked and spauled exposed aggregate paving along Chestnut Street in front of Independence Hall.

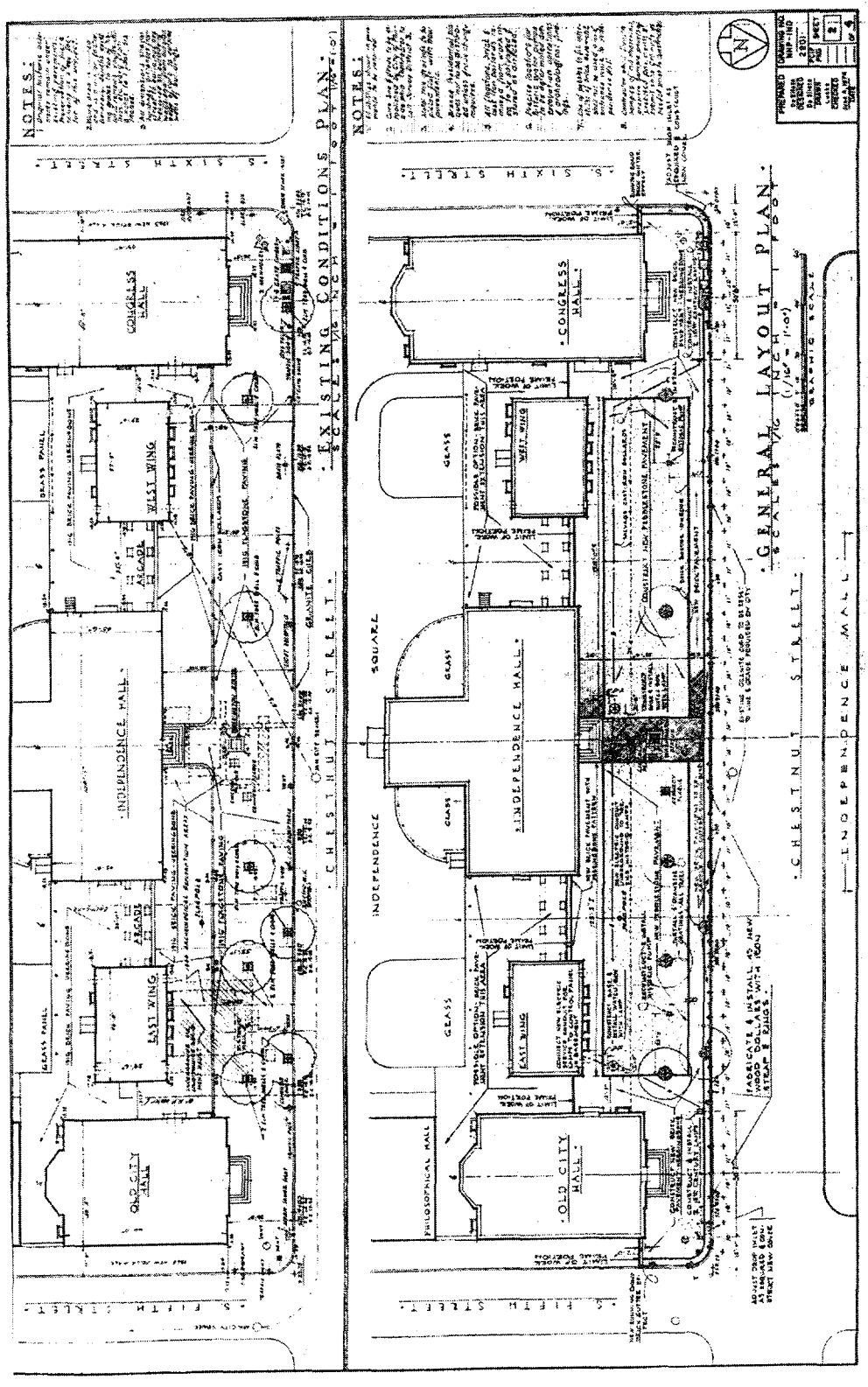


Figure 20: This site plan was used as the basis for implementing the 1974 "Capitol City" landscape reconstruction undertaken in preparation for the Bicentennial celebration of the founding of our nation. From Denver Service Center files. Drawing # 391/2901, sheet 2 of 4.

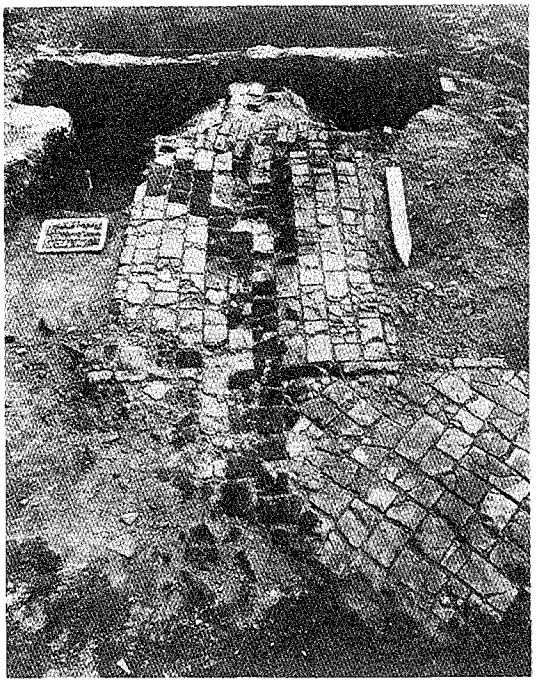


Photo 45: Historic brick paving uncovered during archeological investigations along Chestnut Street in front of Independence Hall.



Photo 46: Archeological investigations revealed historic herringbone brick paving pattern and brick edging.

The paving material on the north square was reconstructed in 1974 to reflect the Capitol City decade. While this new paving is helpful in interpreting the Capitol City period, as a new feature it does not contribute to the contexts described in Chapter 2. However, if information becomes available determining the Bicentennial to be significant, then this new paving would contribute to this later historic context.

Feature — Brick Building Apron

Description: Brick paving in a herringbone pattern surrounds the row of buildings on Independence Square, from a line even with the north edge of the stairs on the north side of Independence Hall to a line even with the south face of the main portion of Independence Hall. This brick paving connects to the perimeter walks, the north and east sides of Old City Hall, and the west side of Congress Hall. A stretcher course edges the paving separating it from the adjacent bluestone and exposed aggregate. The small triangles in the paving where the herringbone pattern meets a straight edge are filled in with cut bricks. The building apron connects into the perimeter walks along Chestnut Street (photo 47).

Condition Assessment: The building aprons appear to be in good condition. Occasional brick joints exceed the 1/4 inch maximum in the accessibility guidelines.

Background: The 1915 AIA plan included an exception to the bluestone paving by providing for brick building apron. These were thought to serve as a "more appropriate and attractive paving material when brought in direct relation with the base of the old buildings." This was

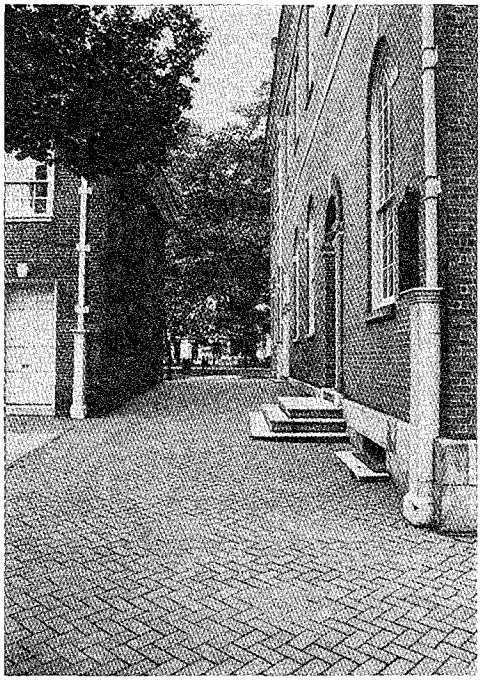


Photo 47: Herringbone building apron provides a visual base unifying the Independence Hall complex of buildings.

supported with the argument that the use of brick pavement around the buildings was typical of the historic period.

The construction drawings for the 1974 reconstruction of the north square indicate replacement of the brick building apron on the south of the buildings as a bid additive. It appears that the brick was replaced in this reconstruction, as the current material is a wirecut brick consistent with the pavers in the north square, which would not have been readily available in 1915.

Significance: The brick building apron was an important element in the rehabilitation undertaken by the AIA in 1915 and the colonial style which they intended to affect. In this respect, the brick apron relates to the context of *Historic Preservation — Professionalism in the Early 20th Century.*

Feature — Brick Perimeter Sidewalks

Description: The sidewalks along Sixth, Walnut, and Fifth Streets are wire cut brick pavers, in a herringbone pattern, bounded by buildings or walls on the inside, and a granite curb on the street side. The herringbone pattern runs to the edges, with brick pavers cut to fit as necessary (photo 48).

The granite curbs have been ground down at the four corner intersections creating curb ramps, with brick paving warping down to meet the curb cuts. There are two ramps at each

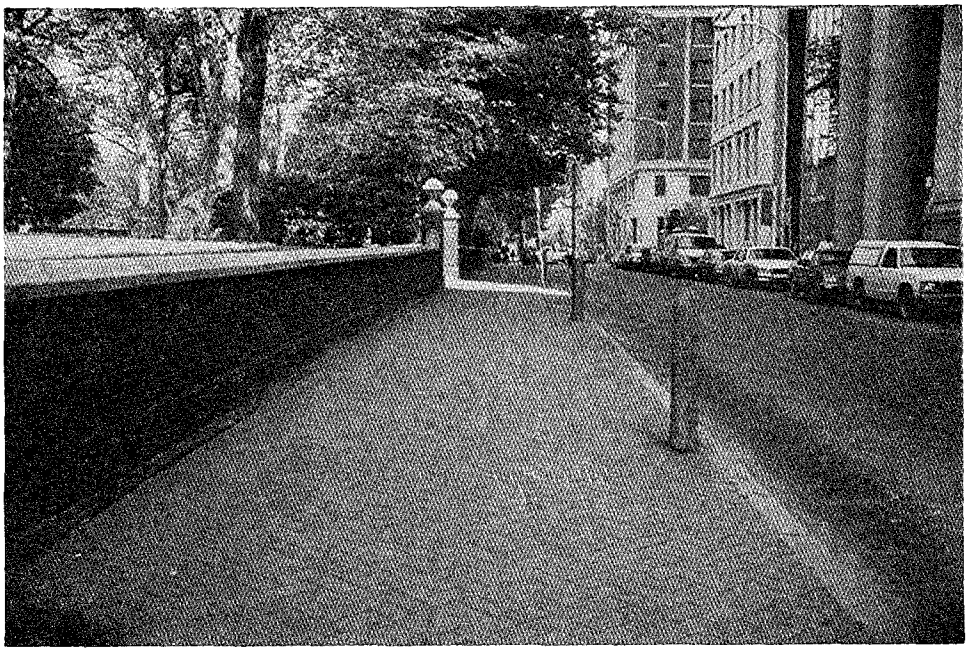


Photo 48: Herringbone brick paving pattern typical of the perimeter street sidewalks.

corner. No ramps occur mid-block, such as at Sansom Street on Sixth Street, midway between Chestnut and Walnut Streets.

Condition Assessment: The brick paving is in good condition, and generally smooth and flat. Some areas show lifting or settling particularly where utility lines run beneath the brick. In other areas, particularly adjacent to the granite curb, brick pavers show damage including cracking and crushing, probably from vehicles running over the curb (photos 49 and 50).

Background: The historical narrative suggests that the square's original perimeter sidewalks were surfaced with gravel.[19] During the 1780's and 1790's, brick sidewalks, or "footways", were introduced around the square.

In the 1870's, the perimeter sidewalks serving Independence Square were resurfaced with large pieces of bluestone flagging. This was the result of a long term effort to give the old State House building the dignified setting that many felt it deserved. As early as 1790, one citizen had recommended that the approach walk to the State House and the passageway through it to the gardens should be "paved with neat slabs either of Marble or Free-stone" in contrast to the brick sidewalks which would have been commonplace in the city at that time.[20]

In 1962, the bluestone perimeter walks, excepting the north square along Chestnut Street, were replaced with brick paving.[21] These NPS reconstructions were undertaken through a series of cooperative agreements with the city government. The current brick sidewalks are intended to represent the conditions present during the 1790's, the decade during which Philadelphia served as the nation's capitol.



Photo 49: Damaged sidewalk brick paving along curb line.



Photo 50: Subtle indications of settlement as indicated by depression in sidewalk brick paving.

Significance: As reconstructions installed during the 1960's the brick perimeter sidewalks are intended to interpret *Philadelphia, Capitol City*, 1774-1800. The alignment, rather than the specific surface treatment, contributes to all historic contexts

INTERIOR CIRCULATION

Feature — Interior Walkways

Description: A wide central walk occupies the north/south axis between the bell-tower and the Walnut Street entrance and is crossed by a narrower 20-foot-wide walk running east/west between Fifth and Sixth Streets. Two diagonal walks extend from the crossing towards the two intersections of Walnut Street with Fifth and Sixth, forming a goosefoot or "patte d'oie" pattern in the southern half of the square. A circular walkway, 210 feet in diameter and 15 feet wide, is superimposed into this pattern creating wedge shaped areas of turf which point towards the center of the square (drawing 10).

The surface of the interior walks are paved with large bluestone flagging, laid in a European coursing pattern (random setting within an even horizontal band). The slightly crowned walks are bordered by a narrow stone curbing set on edge and served by drain inlets leading to a subsurface system of pipes. South of the Barry Statue, the central walkway is bordered on either side with an exposed aggregate concrete apron incorporating what was once an allee of trees (photo 51).

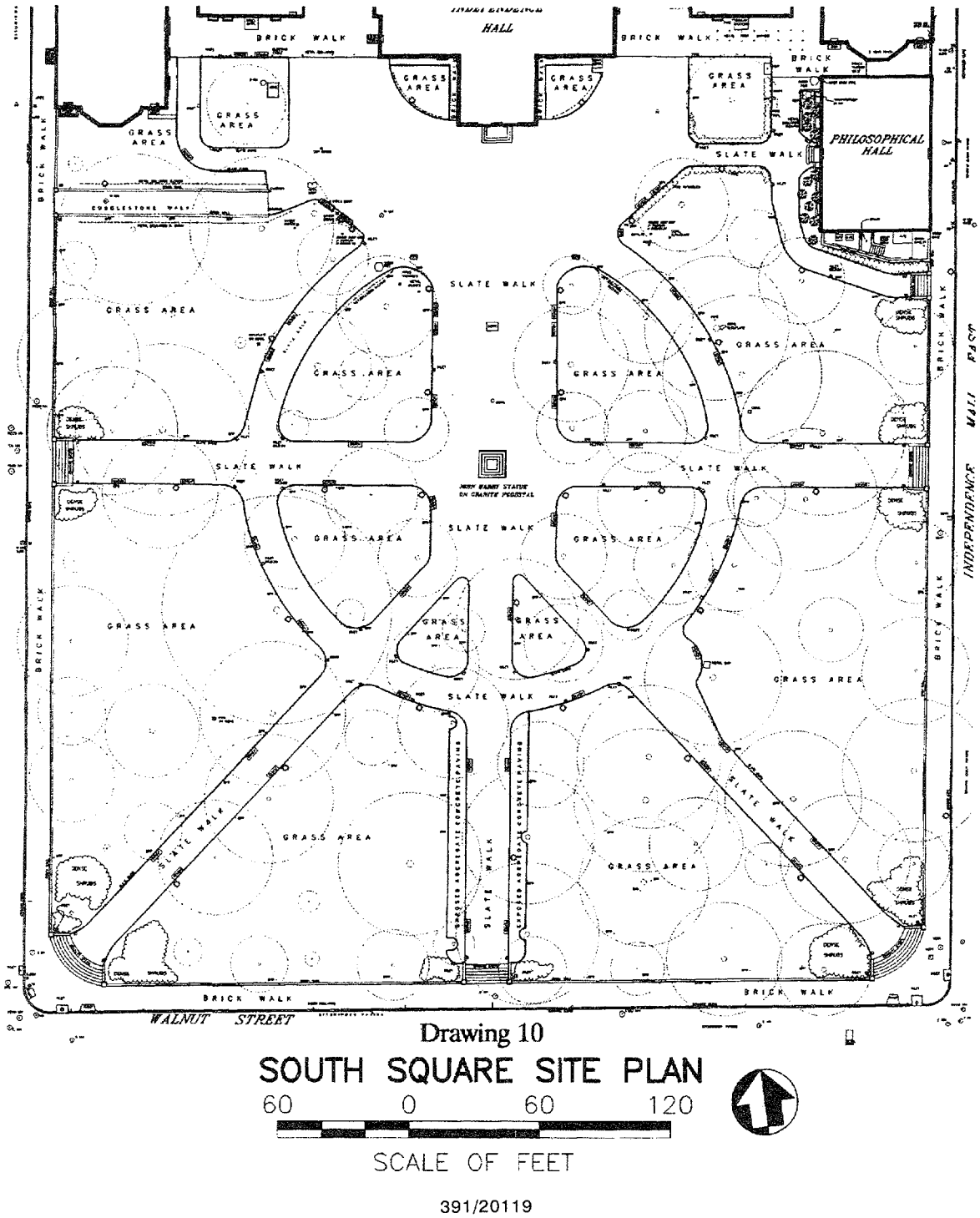
The bluestone coursing runs perpendicular to the direction of the main walks. At the Commodore Barry Statue, the coursing forms concentric circles. Where the circular pattern intersects the straight walkways, stones have been cut, accommodating the paving patterns of the straight walks. On the walks adjacent to Philosophical Hall, the bluestone is set in a random pattern (photos 52 and 53).

The width of coursing ranges from 4 to 9 feet, with most in the 4-foot range. Stones are somewhat larger in the immediate vicinity of Independence Hall.

The original bluestone was 4 to 6 inches thick, typically ranging in size from to 5' x 6' down to 2' x 3'. Replacement flagstones are smaller ranging from 1-1/2 to 2 inches thick. The stones are cut on the edges, and split faced on the top surface. The original stones are probably split faced on the bottom as well; replacement stones are sawcut on the bottom and edges, split faced on the top.

Condition Assessment: Overall the bluestone walks exhibit signs of age, including heaving, shifting of stones, and inappropriate concrete patching. Replacement bluestone flags are typically smaller in area and thickness. These replacement stones are subject to breaking, particularly when driven on by maintenance trucks. Many of the bluestone flags are unstable, indicating subgrade disturbance. This condition is more prevalent further from Independence Hall. Damage from settling is especially apparent in the location of the no longer extant Sons of Temperance fountain and around drain inlets (photos 54 through 56).

The principal loading on the bluestone paving is provided by pedestrians, maintenance vehicles, and limousines transporting dignitaries at special events. Often times this use results



Drawing 10: The area south of Independence Hall is a broad, open landscape with large trees and grass areas integrated with a system of bluestone walkways providing the principle pedestrian circulation for the square.

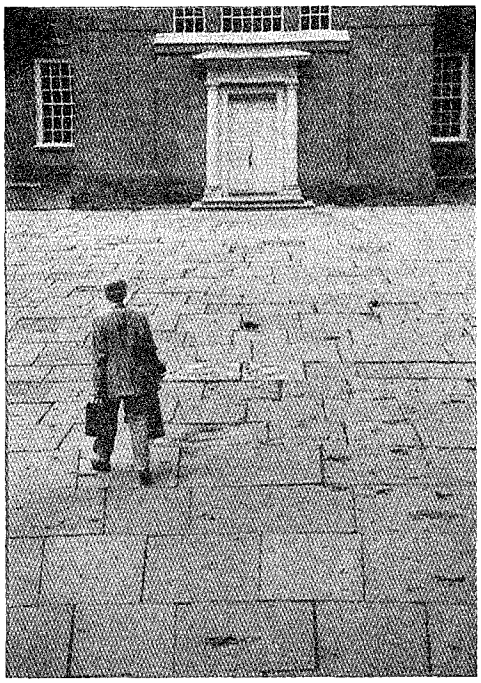


Photo 51: European coursed bluestone flagging. View is of the south entrance to Independence Hall.



Photo 52: Concentric circular flagstone paving pattern in the vicinity of the Commodore Barry Statue.



Photo 53: Rectangular pattern of the bluestone walks in areas adjacent to Philosophical Hall.



Photo 54: Bluestone paving damage resulting from subgrade settlement causes extensive ponding.



Photo 55: Bluestone damage at the location of the no longer extant Sons of Temperance Fountain.

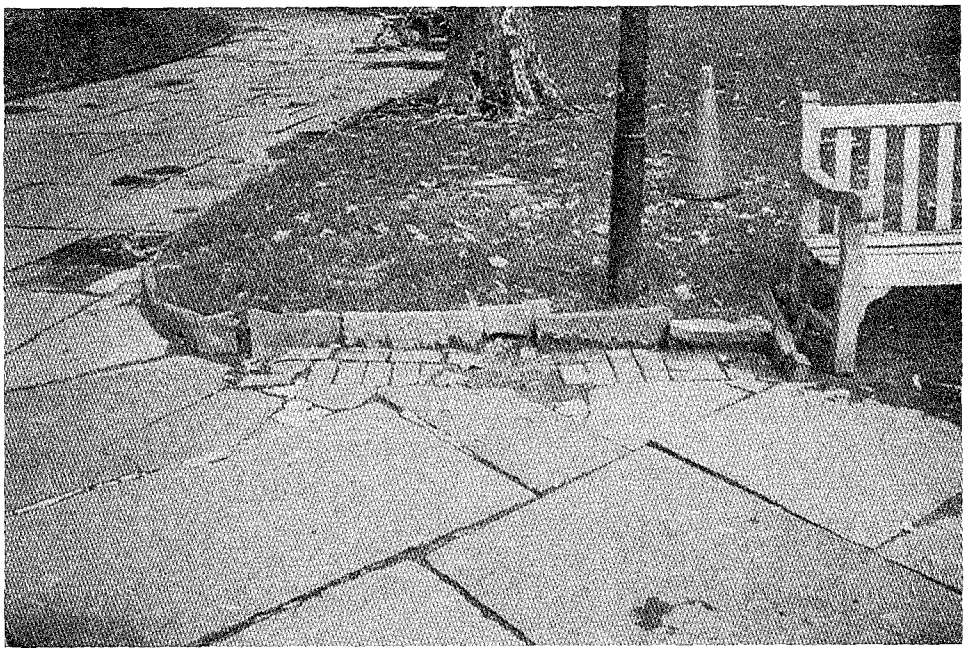


Photo 56: Damaged bluestone paving and stone curbing along lawn area. Note the infill brick pavement next to the bench.

in vehicle loads in excess of 6000 pounds per axle. As long as the paving base and sub-base remain in good condition the older, thicker flagstones are able to accommodate the pickup trucks and tree pruning trucks without incurring damage.

Background: Prior to Samuel Vaughan's display of "rural fancy" constructed during 1784-1787, the State House square resembled little more than an enclosed service yard with a covering of long grass, interspersed with the occasional tree and shrub. Vaughan's work reinforced the axial relationship between the tower on the State House and the pre-existing Walnut Street gate by connecting the two points with a wide central pathway bordered on each side by a double row of trees. Around the perimeter of the square, Vaughan laid out a serpentine walk in keeping with the fashion of the day. Indeed, Vaughan's installation of this serpentine walk may have been in response to direction provided by others, for thirteen years before the implementation of his plan, one writer had noted that the small size of the square would limit the extent of any walkways, "unless they make them of a circular or serpentine form."[22] Looking elsewhere in American Federal period design precedent, it is interesting to compare the layout of the Vaughan serpentine walkways with the estate gardens of George Washington at Mount Vernon and Thomas Jefferson at Monticello for their similarities.

Vaughan's walkways were surfaced with gravel and remained so until they were removed in 1875 to make way for a redesign of the square in preparation of the centennial celebration of the signing of the Declaration of Independence. Photographs taken in 1868, prior to the removal of the Vaughan walkways show the central walkway elevated approximately 1 foot above the surrounding ground surface. This walk was spanned by two 33-foot-wide stone stairs that provided access to the intersection of the central walk with the serpentine perimeter path at the Walnut Street gate. Entrances at mid block, and at the corners of Walnut Street also made their way into Vaughan's plan as it appeared at mid-century.

Among other perceived advantages, the redesign of the walkways during 1875 introduced two walkways encircling the center of the square, satisfying the wishes of some citizens wanting a site for a prominent monument. The circular plot created by the 1875 redesign remained vacant for years as many argued that there was no more appropriate a memorial to the events that took place here than Independence Hall itself. Seasonal floral displays filled the circular plot until 1907, when the city accepted the gift of a statue of Commodore John Barry and placed it in the center of the circle.

The details of the 1875 Centennial plan, evolved from many different proposals that were being put forward at the time. One of the most striking changes undertaken prior to the Centennial was a change in walkway surfaces from gravel to bluestone flagging. The installation of flagstone walks at the interior of the square was intended to match the treatment of the wide plaza on Chestnut Street in front of Independence Hall, which had been surfaced with bluestone earlier in 1870.

In 1914, the Philadelphia Chapter of the American Institute of Architects in concurrence with the city's Art Jury elected to retain the bluestone surface material on the square in the new plan. One exception was made to provide for brick building apron which served as a "more appropriate and attractive paving material when brought in direct relation with the base of the old buildings."[23] This was supported with the argument that the use of brick pavement around the buildings was typical of the historic period. Other changes brought about by the AIA's plan also closed and obliterated four redundant entrances and walks at the southern half of the square, and paved the remaining circular plot surrounding the Barry Statue with a radial pattern of bluestone, matching the material of the existing walks.

Significance: The alignment of the central walk contributes to all historic contexts while the radial pattern and bluestone material contribute to the Centennial of American Independence and *Historic Preservation — Professionalism in the Early 20th Century* contexts.

Feature — Exposed Aggregate Concrete Aprons, South Square

Description: Exposed aggregate aprons line the bluestone walkway on both sides from the Walnut Street entrance north to the circular walkway south of the Barry Statue. Tree wells were provided accommodating rows of trees lining the walk. Voids created by loss of trees have been filled with exposed aggregate (photos 57 and 58).

Condition Assessment: The exposed aggregate paving lining the south end of the central bluestone walk is in relatively good condition. Patching of old tree pits in this area has been done in like materials, but due to the jointing pattern the locations of these pits are still evident. The expansion joint lines of the original exposed aggregate paving panels are not continued through the patched tree pits.

Background: In 1915, as a part of the AIA rehabilitation of the square, two gravel aprons were installed flanking either side of the central bluestone walkway from the Walnut Street gate to the center circle. In 1959, the National Park Service removed the apron from the islands north of the circular walkway, and replaced the remaining aprons with exposed aggregate concrete. This change may have been motivated by the desire to replace the high maintenance gravel surface with one requiring a lower incidence of repairs as well as the

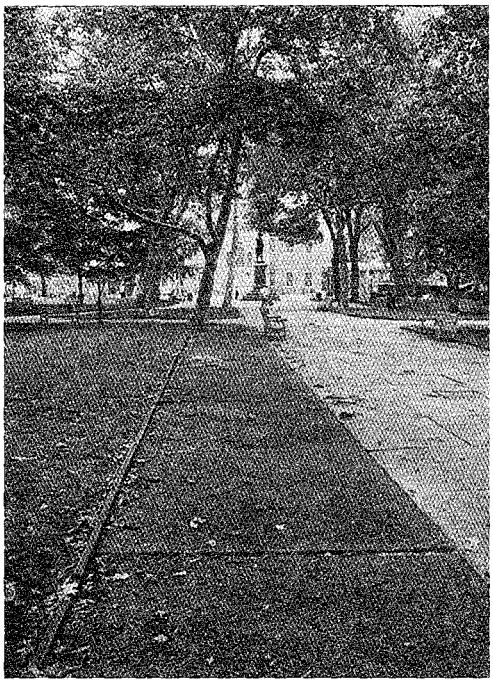


Photo 57: Exposed aggregate aprons lining the southern portion of the central walkway in the south square.



Photo 58: Central walkway apron tree well infilled with exposed aggregate paving.

need to eliminate the potential for the loose gravel to be used as projectiles. The motive for this change in surface has not been documented.

Significance: As a contemporary surface treatment. These aprons in themselves do not relate or contribute to the historic significance of the property.

Feature — Cobblestone Driveway

Description: Approximately 50 feet south of Congress Hall, a cobblestone driveway enters Independence Square from Sixth Street. This ramped drive provides minimal access to the square for maintenance and service vehicles. The entry to the driveway from Sixth Street is gated with a black iron chain and lock to restrict vehicular access.

The driveway is 97 feet long by 10 feet wide, paved with cobbles. The surface is crowned, draining to swales lining both sides. Each swale terminates at a drain inlet. Brick retaining walls with marble copings border the drive on both sides, matching the retaining walls surrounding the square. The walls terminate with a pair of cannon upended into the ground, serving as fenders protecting the ends of the wall. The top of the walls are bordered with iron bollards strung with heavy gauge chain (photos 59 and 60).

Condition Assessment: Except for the siltation of the drainage system, the driveway appears to be in good condition. Due to the large size of the cobbles, the driveway is difficult to walk on, and is not accessible. The chain across the entry piers is worn and poorly attached to the piers. Drain inlets are silted in and difficult to see. The bluestone pavers are broken and poorly patched at the cannon placements (photo 61).



Photo 59: Cobblestone driveway provides vehicular access from Sixth Street.

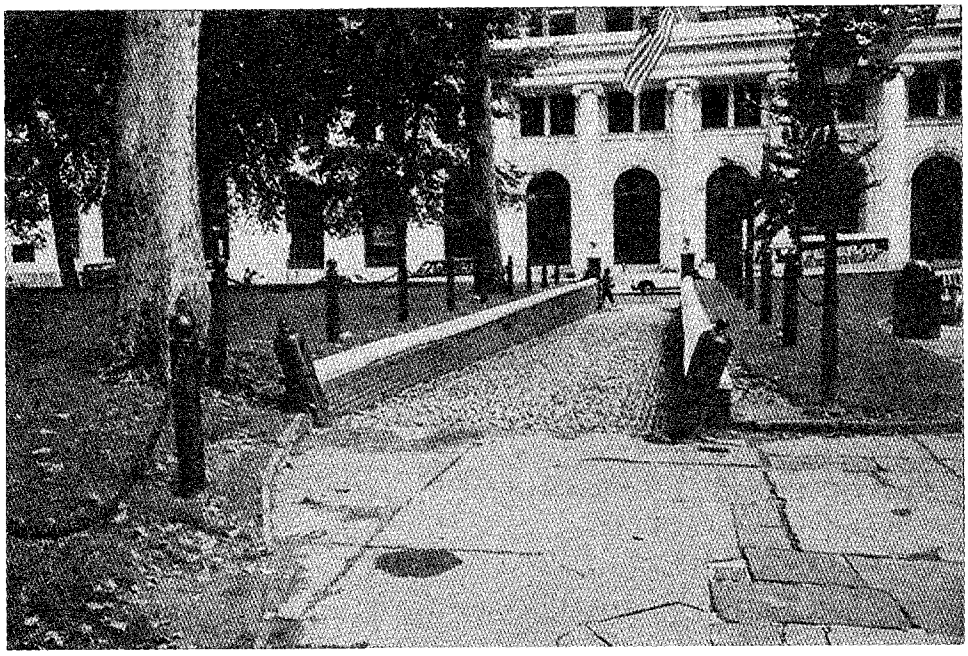


Photo 60: Cannons protect the ends of the brick wall edging the cobblestone driveway.



Photo 61: Paving at the base of the cannon is severely damaged.

Background: The origin of the cobblestone driveway is not clear. However, it is likely that the driveway is a vestige of the New District Courthouse, which was extant to the south of the drive between 1866 and 1901. The cobblestone driveway or cartway appears to have served as an access point for the New District Courthouse when the openings between the fireproof Mills buildings and the County and City Hall buildings were infilled with additional office space in 1872.[24] During the life of the courthouse building the driveway would have been useful as an access for the police van, which transported prisoners by way of a "door on the north side of the building."[25] The driveway is clearly visible in photographs taken after the courthouse building was removed in 1901.

The AIA plan of 1915 retained this driveway, making note of its utility for "hauling coal to the buildings and for similar traffic into the square as occasion" required.[26] In this plan, walls were installed along this pre-existing driveway in keeping with the treatment of the rest of the square. The plan called for the driveway to be surfaced with cobblestone, designed to be reminiscent of pavings typical of the eighteenth century.

In 1919, a pair of cannon were upended into the ground at the ends of the driveway walls to serve as fenders.

AIA correspondence files (from the 1915 Independence Square rehabilitation) suggest that the cannon are actually facsimile reproductions of those used by the Continental Army during the Revolution. One of the letters even included the manufacturer's brochure, complete with photos showing two types of cannon proposed for the driveway: a 3-pounder 40 inches in length and a 6-pounder, 5 feet in length. Although these facsimile cannon were proposed for use in the square and a letter was sent to the contractor requesting a price for purchasing and installing the cannon, no letter was discovered directing their installation. Copies of the AIA correspondence may be found in appendix D.

Recent physical examination of the cannon revealed rim base numbers of 867 and 821 located near the vent holes. Undiscovered but expected, are the inscriptions of "JRA and TF," which should be located on the right trunnion faces, with the dates of production imprinted on the left trunnion faces. This information indicates that the cannon are Civil War 12-pound howitzers, Confederate artillery manufactured by the Tredegar Iron works of Richmond, Virginia.[27]

The cobblestone pavement originally installed in 1915, was last reset by the National Park Service in 1960 during restoration work then taking place on Congress Hall.

Significance: The significance of the cobblestone driveway relates to the context of *Historic Preservation — Professionalism in the Early 20th Century.*

VEGETATION

Introduction

There are 88 deciduous trees present within the boundaries of Independence Square. Of the 26 species represented, almost half are American Sycamore (*Platanus occidentalis*). The trees vary in age from very recent plantings, to specimens estimated to be up to 120 years old. Updated estimates of tree age were prepared as a part of this report by relating field

observation and measurement to historical drawings. Estimates suggest that 60 percent of the trees are over 43 years old, predating NPS stewardship. Approximately 40 percent of the trees are over 82 years old, predating the AIA rehabilitation of 1915.

There are 46 mass plantings of shrubs at Independence Square. These plantings are typically located in planting beds flanking the entrances to the square south of Independence Hall. However shrubs are also used in foundation plantings associated with Philosophical Hall.

Condition Assessment: The park's ongoing tree care program is effectively preserving the grove of trees in Independence Square. However, poor and urban site conditions are leading to the decline of several older trees at the site. During an arboricultural evaluation in preparation for this report, all but ten of the trees were found to require attention. Most of the work identified is needed to correct minor problems such as poor limb structure and growth and insect infestation. Twenty trees, however, harbor hazardous conditions which present immediate health and safety issues. The most serious hazards include dead and/or hanging limbs directly over pedestrian use areas, weak structural stability such as split leaders, and deteriorated arboricultural hardware such as broken cabling.

Furthermore, a great deal of the soil in Independence Square is highly compacted. This condition is resulting in poor water infiltration and a very low capacity for air to reach tree roots. These conditions affect the ability of trees to take up critical nutrients from the soil. This in turn inhibits root growth and has been known to accelerate decline. Many of the trees in the square are exhibiting poor growth caused by compacted soil. This is indicated by exposed surface roots, roots growing around or "girdling" the trunk, minimal shoot growth and reduced leaf size. Compaction is particularly a problem at the square's entrances, along the edges of planting beds, and in areas where visitors wait to enter Independence Hall and adjoining buildings. Detailed recommendations for the treatment of the trees on Independence Square can be found in appendix B of this report.

Background: The last surviving tree from the Eighteenth Century Vaughan landscape plan was identified as a cypress tree in the 1930's, and has since died.

While shrubs have been found throughout the square historically, planting plans and locations have not been documented. The present shrubs on site are attributed to NPS stewardship after 1951.

Prior to the turn of the twentieth century, during the Victorian era, herbaceous plantings of annual flowers and spring bulbs regularly decorated the square. The installation of additional flagstone pavement over former flower beds in 1915 discontinued this practice.

Feature — Trees on Chestnut Street

Description: There are three surviving elm trees in the north square, forming the remnants of a row approximately 15 feet south of the curbline. Visibly patched or covered tree wells in this area confirm photographic and cartographic records of the former existence of a double row of trees lining the Chestnut Street frontage (photos 62, 63 and 64).

Condition Assessment: The condition of the three remaining trees on Chestnut Street appear in this evaluation and are included as an appendix to this report. Generally, this evaluation

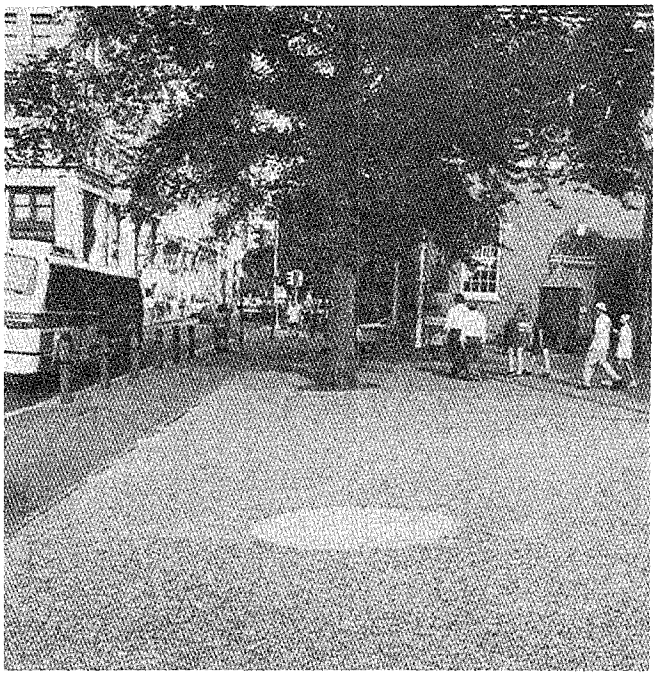


Photo 62: Patching of exposed aggregate paving indicates location of former double row of trees lining Chestnut Street in front of Independence Hall.



Photo 63: One of the remaining trees along Chestnut Street. The root growth and paving edging indicates that the tree well has been enlarged.



Photo 64: View showing the few trees remaining from the double row allee that once lined Chestnut street.

suggests that the remaining trees are approaching the end of their life cycle. Declining conditions may have been advanced by stress resulting from insufficient rooting space due to the small sizes of planting pits in addition to heat reflected off of nearby pavement, the use of ice melting chemicals and exhaust from buses and automobiles.

Background: In 1752, Heap recorded the intention to plant rows of trees on the State House Square, in keeping with then current design traditions. The double row of trees does not appear in either Peale's 1778 view or Malcom's c. 1792 view of Chestnut Street. It is possible, therefore, that trees may have been present on site, but could have been edited out of these early views in an effort to more clearly delineate the architectural facade of the buildings.

The double row of trees is first mentioned in a c. 1817 guidebook of the area.[28] In 1821, Councils authorized the replacement of what were probably Lombardy poplars with English Lindens.[29] The trees first appear graphically in drawings c. 1825. In 1844 the Lindens were pronounced "doomed" and after a hard pruning were replaced with five Sugar Maples transplanted from Philadelphia's Logan Square.[30]

In 1869, an order was given to remove the trees on either side of the location where the Washington Statue was to be placed so as to not interfere with views of the statue from a distance. However, photographs from the 1870's show trees in this location, suggesting that the order was never carried out.[31]

In 1880, more trees died along Chestnut Street after flagstones at their base were removed and replaced. A new plan was made to create circles in the new flagstone with at least a 6-foot diameter to allow the trees to grow and not girdle them.[32]

In 1896, four trees, this time Carolina Poplars, had to be installed to replace two trees that had been killed by a natural gas leak.[33] The tenure of the poplars was not long. In 1896, the newly hired city forester characterized the poplars in front of Independence Hall as being samples of a "whole brood of cheap and nasty trees," and planned to have elms installed in raised grass panels. Eight Carolina Poplars did come down the following year. The second part of the plan, however, which called for the installation of elms was not carried out.[34] Photographs of the area between 1900 and 1905 show the Chestnut Street frontage without any trees.[35] Later photographs taken in 1906 show a single row of young trees in front of Independence Hall.

The AIA pointed out in a 1914 memorandum, "Improvements to Independence Square: It is also suggested that by restoring the row of trees that formerly existed on the frontage the present baldness of the unshaded sidewalk will be relieved, besides still further creating a feeling of separation from the traffic of the street that it is believed so venerable a structure as the State House should possess."[36] In 1919, the AIA's recommendations were implemented when the Fairmount Park Commission cut holes about 45 feet apart on the Chestnut Street sidewalk on either side of the Washington Statue to restore the double row of trees. This work made places for six elm trees set back 15 feet from the trees already present on the curb line, bringing the total number of trees on Chestnut Street to thirteen, one for each original state.[37] A tree inventory of the square during 1953 documents that these trees survived at least to the beginning of NPS stewardship of the square.

Three existing elms along Chestnut Street constitute the remnants of that double row of trees standing in front of Independence Hall. These three trees are the survivors of what was the southern row of trees nearest the buildings. The last surviving tree on the northern row, also an elm, was removed from the curbline in June of 1996.

As a feature, the double row of trees north of Independence Hall has appeared, disappeared, and reappeared since its first mention in the historical narrative, c. 1817. As late as 1953, during the time when the NPS assumed stewardship for the property, this double row of trees was a complete and striking feature in the landscape.

Significance: The continuity of a double row of trees on the north square along Chestnut Street contributes directly to the contexts of the Centennial of the American Independence and *Historic Preservation — Professionalism in the Early 20th Century*, even though the original trees have been replaced.

Feature — Grove of Trees

Description: The grove of trees south of Independence Hall includes deciduous shade tree species. Primary genera include oak, elm, and sycamore, illustrative of a great simplification of the variety of trees which have existed in the square historically. However, these three genera which now dominate the grove have been well represented on the square since Vaughan's 1785 plan.[38] The grove of trees, evolved from the original design, no longer has a discernible physical pattern or order. Instead of relating to individual trees, or their layout, the character of this historic landscape is defined by the interlocking canopy of trees which has shaded the square through so many events and periods in its history (photo 65).



Photo 65: An interlocking canopy of trees provides shade in the area south of Independence Hall.

Condition Assessment: Soil compaction is a major problem affecting the health of the trees and other woody plants. This is particularly evident at park entrances, and in areas where visitors wait to enter Independence Hall. As a result, many trees have developed girdling roots leading to declining health.

All but ten of the trees need stabilization or critical resource protection. The most significant maintenance need among trees is deadwood removal and general pruning. Replacement of cabling is also needed in many of the trees. Most display leaf stippling and skeletonizing.

A detailed report on the inventory and condition assessment of vegetation conducted during July 24-26, 1996 is attached in appendix B.

Background: As early as 1752, Scull and Heap's "Map of Philadelphia" indicates of an intention to lay out the grounds of the State House with "walks and Rows of Trees."[39] It is speculated that Nicholas Scull, who served as surveyor-general of the province in 1748, would have been familiar with the Pennsylvania trustee's future plans for the grounds and noted them on this early drawing. In 1763 the provincial assembly ordered the preparation of "a plan for laying out the square behind the same with proper Walks, to be planted with suitable trees for Shade."[40] Although no trees were planted until after the Revolution, these two references help to place the later landscape design of Samuel Vaughan into a understandable context.

Landscape design in colonial America during the mid to late eighteenth century clung to earlier landscape design patterns of the English Renaissance rather than embrace the new "landscape gardening" fashions then being popularized by Brown and Repton in England. The earlier fashion had been introduced to England by John Evelyn's "Silva or a Discourse on Forest Trees" (1664) and by Andre Mollet's "Jardin de Plaisir" (1651). Mollet's "Jardin" recommended planting "a big avenue with a double or triple row of female elms, or lime trees...which must be planted in line at right angles to the front of the chateau..."[41] French landscape design elements such as allees of trees and avenues were further popularized in 1712 with the English translation of "La Theorie et la Practique du Jardinage," by Antoine-Joseph Dezallier, a student of Andre Le Notre.

Thus when Samuel Vaughan laid out both double rows of trees along the State House central walkway, and informal clumps of trees along the perimeter serpentine path, he stood squarely astride two traditions in landscape design. The old traditions were well established in the region, a well known local example being the home grounds of internationally known botanist John Bartram. Bartram had planted a double row of elms along the walk from his house to the Schuylkill River that almost certainly had been admired by the Pennsylvania trustees. By Vaughan's time, the current fashion in naturalistic landscape gardening had become well known to America's elite who read widely and returned to Europe on a routine basis. Vaughan's synthesis of these two traditions, and his design response to the axial relationship between the existing tower on the State House and the elaborate Walnut Street gate resulted in the square's first landscape design.

It had been Vaughan's plan to introduce to the square one example of every tree species known to the original thirteen states. By 1785 he had collected over eighty different kinds of trees only to see them damaged by the hot dry summer. Although plant lists survive from Vaughan's purchases from the Bartram nursery, a planting plan for the square does not. While exact locations of plantings are unknown, it is understood that one of the most dramatic design effects turned out to be the double row of elm trees lining the gravel central walk between the State House and the Walnut Street gate.[42] Photographs taken in 1875 reveal that these trees lining the central walk remained a dominant feature of the landscape for almost 100 years. In addition to the elms on the central walkway, by 1844, Andrew Jackson Downing was commenting on the superb specimens of Plane or Buttonwood Tree (*Platanus*) growing at the State House Square.[43] As late as 1859 as many as 210 different tree species survived, their interlocking branches forming "a canopy of verdure." Among others, these varieties included "horsechestnut, elm maple, buttonwood, and one small evergreen."[44] This small evergreen, a cypress, was identified in 1932 as the last surviving tree from the Vaughan landscape.[45]

As the square's landscape matured and many of the older specimens died, Independence Square hosted many statesmen, generals and dignitaries who came to the square to plant a tree and honor the place where the nation was founded. These VIP's included the Prince of Wales, later King Edward VII of England (1861), General Grant (1879) and General Pershing (1919). Civic and patriotic groups also participated in tree planting including the Women's Committee of the Sesquicentennial and the National Gardeners Association, who in 1926 planted thirteen red oaks along Sixth Street naming them for the thirteen original states. During this century, Independence Day and Memorial Day have served as the typical venue for this kind of memorial tree planting. Opportunity and initiative rather than planning has driven replanting efforts, and this in combination with disease, has removed the double rows of trees along the central walk from the landscape. The number of varieties of trees have also been simplified, as tree planting choices have reflected the experience of which trees perform well on this challenging urban site.

Significance: The persistence of a grove of trees on the property, rather than individual specimens, is among the very few landscape characteristics surviving from the Samuel Vaughan plan of 1784-1787. As Vaughan's work was undertaken to embellish a legislative building complex, this grove most clearly relates to *Philadelphia, Capitol City, 1774-1800.* The significance of retaining this central landscape feature over 200 years relates to the context of *Historic Preservation — Professionalism in the Early 20th Century.*

Feature — Shrubs

Description: Plantings of shrubs are located on either side of the entrances to Independence Square south of Independence Hall. Shrub beds are also planted along the walks by Philosophical Hall, and along the edges of turf beds where visitors wait to enter Independence Hall and its adjacent buildings (photos 66 and 67).

There are 46 mass plantings of shrubs on Independence Square, including 17 species. Euonymus is the most frequently occurring genus of shrub.

Condition Assessment: Detailed evaluation of each individual shrub massing is provided in an appendix to this report. Generally, this evaluation suggests that the shrub plantings have become large and over mature. A hard pruning has been recommended for a majority of the plantings to stimulate new bud growth lower on the stem and restore compact growth habit. Soil compaction has affected the health of some shrub plantings, particularly along the edges of planting beds and in areas where visitors gather to wait for tours.

Background: Prior to Vaughan's efforts in the 1780's the State House Square is known to have contained a scattering of trees and shrubs. The pre-Vaughan shrubs have been referred to as Whortleberry in the historical record. Whortleberry, formerly *Andromeda latifolia* is now classified as *Lyonia ligustrina*, or "Fetterbush" and is a native deciduous shrub in the Heath family that can grow to a height of 10 feet.[46]

Plant lists surviving from Vaughan's first purchases from the Bartram nursery includes shrubs of varieties of Hydrangea, Euonymus, Arborvitae, Carolina Allspice and Virginia Sweetspire. Among others, Vaughan's later shrub plantings in 1786 included varieties of St. Johnswort, Indigo, Bayberry, Mountain Laurel, Viburnum and Deciduous Holly.[47]

In 1836, when Lawrence Hart was hired as the gardener for the Independence Square, keeping the shrubbery trimmed and free of insects was listed among his responsibilities.[48] It is unclear as to the changes of the shrubbery during the remainder of the 19th and early 20th centuries.

Photographs taken in the early 1950's indicate that there were no shrubs present on the site at that time. Shrub plantings were initiated by the NPS after it began managing the park in 1953. The planting of the thorny Barberry shrubs south of the East Wing building were installed in 1989 in an effort to help direct pedestrian foot traffic.

Significance: Existing shrub plantings on the property are contemporary with NPS management and have not been found to be historically significant.

Feature — Herbaceous Plantings

Description: Herbaceous plantings are no longer extant within the boundaries of Independence Square.



Photo 66: Many of the stairway entrances to Independence Square are lined with shrub beds such as this one at the corner of 6th and Walnut Streets.

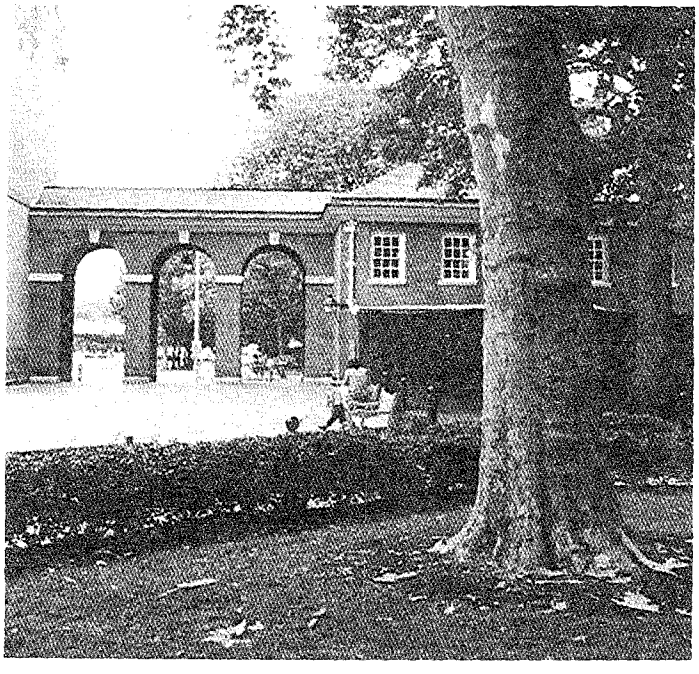


Photo 67: Lawn areas immediately south of Independence Hall are edged with a shrub hedgerow.

Condition Assessment: Herbaceous plantings of annual flowers and spring bulbs are a "missing feature" of the Independence Square landscape.

Background: Historical data suggests that the early landscaping in the square did not include flower beds. In 1875, the Committee on restoration of Independence Hall approved a new landscape design prepared by the city surveyor which was "more consistent with the square's past memories, unlike other schemes that would turn it into a flower garden."[49]

However, the square did not escape displays of "bulbous bloom" during the Victorian era.[50] City forester John Lewis and his supervisor had an enthusiasm for trees and flowers that resulted in heart shaped flower beds of red, white and blue hyacinths in the grass plots on either side of the bell tower. Other flower beds, including the circular grass plot south of Independence Hall were planted with designs of stars, the flag and the Liberty Bell.[51] After 1901, these floral displays became more subdued, and most probably were eliminated after 1915 when the circular grass plot surrounding the Barry Statue was paved with flagstone to match the existing walks.

Feature — Turf

Description: The ground plane of Independence Square with its covering of turf grass is as fundamental to the character of the historic landscape as the canopy of trees overhead. The composition of the turf grass species is not historic as those charged with maintaining the grass have struggled to keep it in good condition for generations. This effort has required using any methods available including improved modern varieties. Nevertheless, the continuity of the use of grass as a groundcover in the square stretches back for over two hundred years (photo 68).

Condition Assessment: Dry shady growing conditions resulting from great quantities of water taken up and transpired by the square's trees has made growing grass a difficult proposition at Independence Square. The installation of an irrigation system during NPS stewardship has been intended to ameliorate this situation, however portions of the irrigation system are no longer functional. Soil compaction occurs at the intersections of pathways, where pedestrians have taken shortcuts across the turf. These factors have contributed to the development of large bare areas of soil throughout the square (photos 69 and 70).

Background: Grass holds a central place in the history of the square as well illustrated by reports during the Revolutionary War of American prisoners dying of hunger, with unchewed grass in their mouths as they were held captive in the State House Square."[52] Indeed, there was no shortage of grass prior to the Vaughan landscape, which introduced shade trees to compete with the grass for sunlight. The turf covering Independence Square was allowed to grow long and was cut for hay well after mid-century.[53] To this utilitarian end, grass seed for both Independence and Washington Squares was purchased in 1842 which contained a mixture of red and white clover.[54]

The development of agricultural reaping and cutting machines between 1851 and 1855 coincided with the growing aesthetic for well trimmed lawns.[55] The United States Patent Office issued the first patents for mechanical lawn mowers to replace the scythe in 1868.[56] While it has not been documented, due to these historical developments, it is likely that after

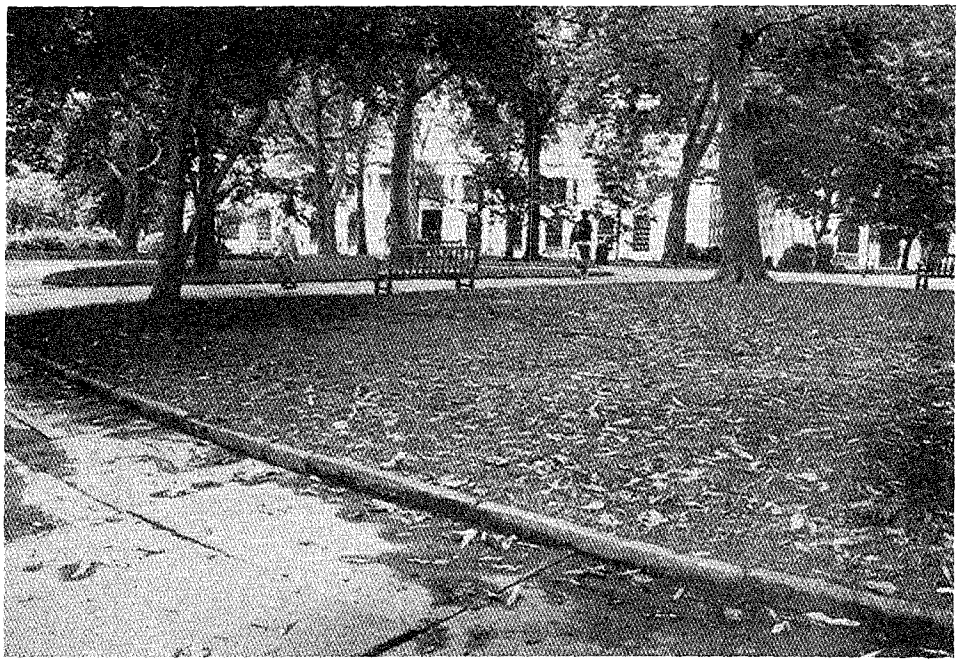


Photo 68: Lawn areas south of Independence Hall.

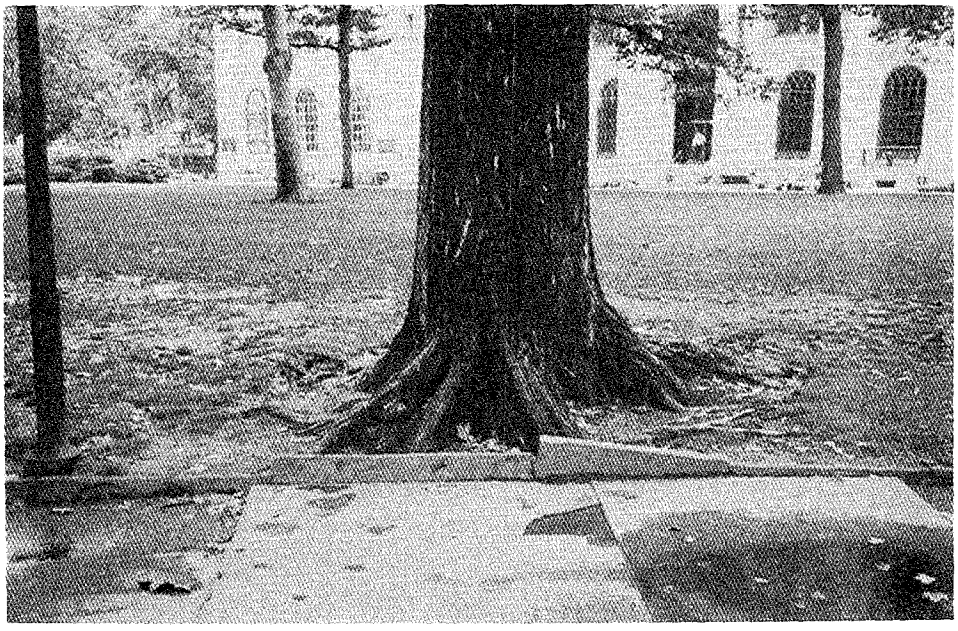


Photo 69: Barren areas around trees caused from a dry shady growing environment.



Photo 70: Soil compaction along heavily used paved areas results in loss of turf grass groundcover.

the 1870's, the turf at Independence Square began to be mowed and managed with the goal of a lawn in mind rather than a meadow.

As trees on Independence Square matured and cast their shade on the grass, the square also witnessed political events which further stressed the health of the turf. The greatest of these events was the establishment of "Camp Independence," on the square during the Civil War which served as Philadelphia's most effective army recruitment station. Given various political rallies and general visitation to the shrine, the ground had been "beaten hard by the tread of countless feet," making the growth of grass a challenging enterprise for many generations of gardeners and groundskeepers.[57]

Significance: Turf covering the ground plane has persisted on the property throughout all periods of its history and therefore contributes to all historic contexts.

SITE SYSTEMS AND FURNISHINGS

Feature — Grading and Drainage

Description: The north square is relatively flat, and sheet drains towards Chestnut Street. Drainage is collected in drainage swales adjacent to the curb where it is carried to curb inlets.

The south square sits 3 to 6 feet above the surrounding streetscape. Within this elevated portion, the land is generally flat. The lawn areas within the square are edged with bluestone curbing and are slightly bermed above the surrounding pavement.

Drop inlets dispersed throughout the south square collect drainage from the pavement and grassy areas. They consist of a cast iron grate mounted atop a brick and concrete box. Many of the inlets have a U-shaped cast iron pipe trap, causing the box to act as a sump trapping silt and debris.

Research did not discover the full extent of the subsurface piping connecting the drop inlets to the city sewer system. The lateral piping plan for the inlets behind Philosophical Hall was the only one located (appendix G). Discussions with Park maintenance personnel revealed that many of the inlets may connect to "dry wells" within the grass areas. The capacity of the drainage system is unknown. However, with all of its apparent problems, park staff stated that it functions remarkably well.

Condition Assessment: Irregularities in the bluestone surface over time have resulted in many of the cast iron grates sitting well above the pavement, no longer collecting runoff. In addition, due to the loss of turf in some areas, the low ground suffering from soil erosion has silted in many of the drop inlets (photos 71 and 72). Poor access to the drains and the configuration of the box and piping make maintenance difficult.

Background: Little has been found in the historical narrative concerning the nature and origins of the subsurface drainage system for Independence Square. However, examination of historical photographs from the 1860's show a distinct crowned surface on the wide central walkway leading from the State House to Walnut Street. The crown on this walkway allowed water to drain off to the side of the walk into brick surfaces or "sidewalks" which existed in between the double rows of trees.

Subsurface drain lines had first been installed in the square in 1862, however these pipes were dedicated only to draining the roofs of the buildings and the toilets inside.[58] These early drains helped to facilitate the use of the square as a recruiting station for the Civil War which became known as "Camp Independence." More subsurface lines were laid during 1870 to route roof drains on the north side of the buildings underneath the Chestnut Street plaza to the common sewer under the street.[59]

The first mention of a subsurface drainage system for the square south of Independence Hall came in connection with the Dixey Centennial Plan for the square which stated: "...the walks are all to be provided with underground drainage to sewers, which will allow them to be free at all times, either from the accumulation of water or from using the sidewalks for surface drainage as at present."[60] Plans for the installation of subsurface drainage also appear in both bids and budgets for the implementation of the Centennial Plan.[61]

Since the underground drainage system origins in 1875, it appears to have been modified up to its present condition.

Significance: Contemporary modifications made to accomplish efficient drainage have not been found to be historically significant.

Feature — Lighting

Description: Walkway lights consist of a stanchion with a lantern type luminaire, both painted black. The luminaires consist of four panes of glass and contain no reflectors. This



Photo 71: Pavement irregularities have caused many drain inlets to sit higher than the adjacent ground, resulting in little runoff collection.

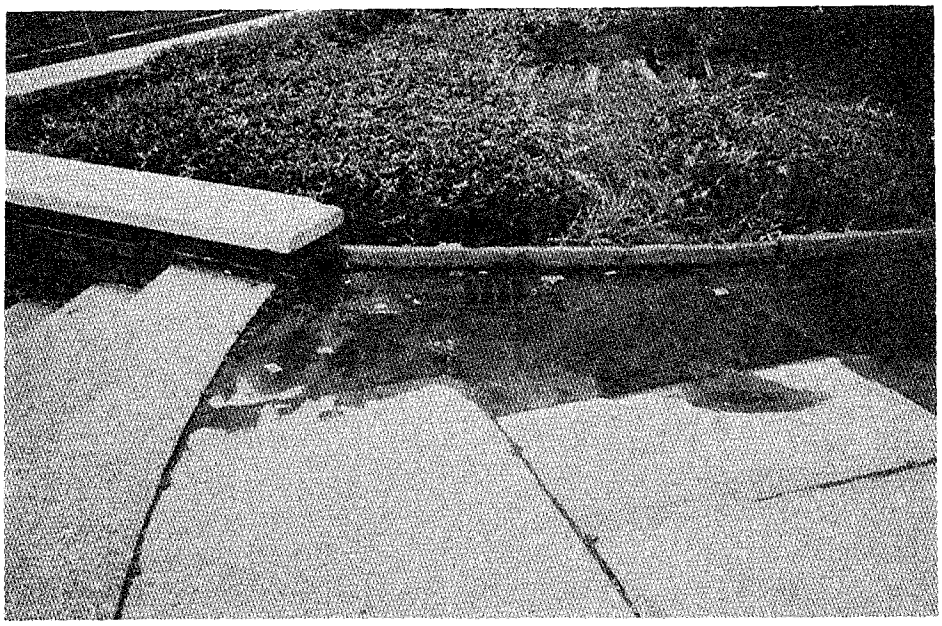


Photo 72: Many drop inlets are completely filled with silt and debris creating ponding.

style of lighting is used throughout the park. The high pressure sodium vapor bulbs produce an orange cast to the light.

Lighting is laid out along the sides of the bluestone walks on the south square, and along the Chestnut Street frontage in the north square. Lights are attached to the exteriors of the buildings, and floodlights across Chestnut Street light up Independence Hall at night (photo 73).

The north square lights are mounted on wooden lamp posts, consistent with graphic evidence of the colonial period. Period lanterns are also mounted on top of the two reconstructed sentry huts or "watchboxes" (photo 74).

Lighting along the walkways in the south square is mounted on iron posts. Light power cables run 6 to 8 inches or less beneath the surface, and are not encased in conduit (photo 75).

Condition Assessment: The park staff is concerned that low lighting levels create unsafe walking conditions and may not be sufficient for security in the square. A few glass panes are missing, and a couple of light poles and luminaires are crooked and need to be straightened. Otherwise, the existing lighting is in good condition. The electric cables are shallow and are not encased in conduit, and therefore are subject to damage from digging and other maintenance activities.

Background: During the eighteenth century, lighting at Independence Square was minimal. The security of the expensive improvements to the State House square had been a concern ever since Samuel Vaughan began the implementation of his landscape design in 1785. As part of a security measures taken during 1789, five lamps kept the square lit after sunset and two watchboxes provided shelter for three guards.[62]

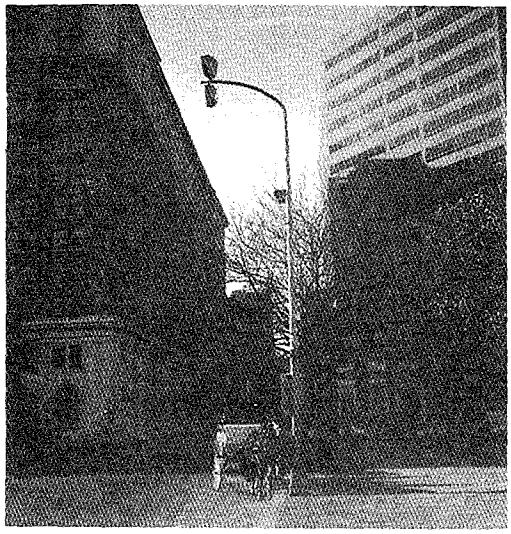


Photo 73: Pole and fixture used to illuminate the north facade of Independence Hall are located across Chestnut Street on the south end of Independence Mall.

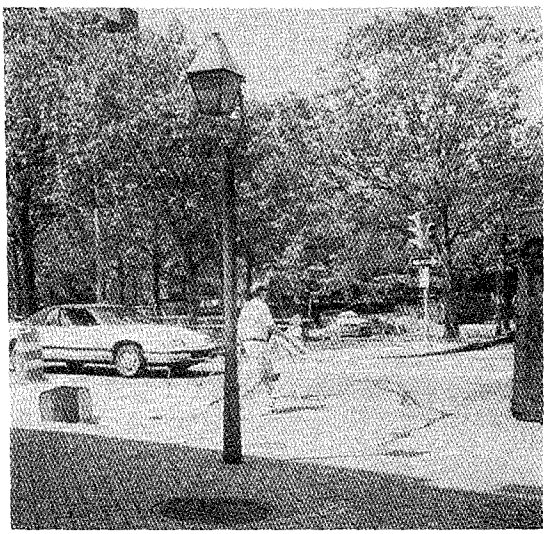


Photo 74: Typical north square light pole and fixture.

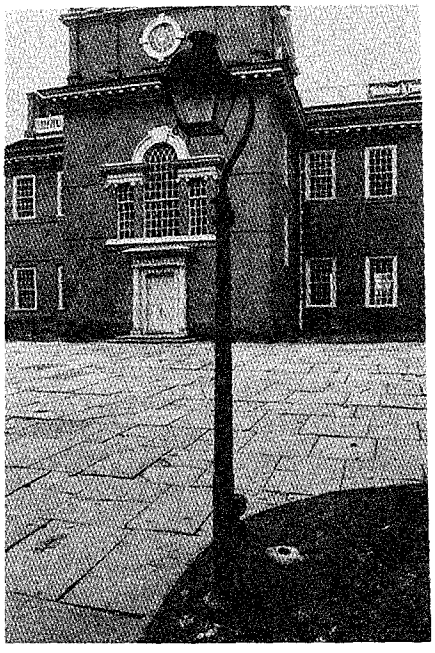


Photo 75: C. 1915 light pole and fixture found along walkways in the south square.

Prints c. 1800 show the Franklin style lamps placed on Chestnut Street and the historical narrative mentions that oil lamps were placed on the gates of piers at the southern entrance.[63] While there is a record of Washington Square having had gas lighting installed in 1827, the first mention of gas lighting for Independence Square appears in 1853.[64] In 1860, apparently there were a total of 24 gas lights at Independence Square, for that year, historical records document the details of the replacement of the gas burners with more efficient models.[65]

Between the 1860's and 1916, historic photographs record a variety of styles and locations of gas lighting fixtures in the square south of Independence Hall. Electric lighting was installed along Chestnut Street north of Independence Hall in the 1880's.[66]

Site lighting first drew the attention and participation of the AIA when an appropriation was secured to restore Congress Hall in 1910. The original proposal in the Loan Bill appropriation of 1910 called for the installation of electric lighting which "mystified" Philadelphia's Chief of City Property, who wanted the site lighting approached in the spirit of "restoration."[67] Soon after learning of the controversy, the AIA committee on preservation of Historic Monuments offered their services for free. The city requested 56 lamps, one for every signer of the Declaration of Independence. The AIA lamp design, based on the fixtures designed by Benjamin Franklin, which were used by the city of Philadelphia as late as 1830.[68]

The results of the AIA's protracted design efforts on Philadelphia's behalf resulted in a gas illuminated lantern consisting of four panes of glass and a metal funnel or chimney top, placed on an iron lamp post. This design was based on the description of a lamp designed by Benjamin Franklin which appeared in his autobiography, graphic evidence of the period which documented the Chestnut Street frontage, and actual measurements of a similar lamp

in the collection of the Philadelphia Historical Society. Franklin had designed the first of this style of lamp after he noticed that poor ventilation caused soot to form on the inside of the glass cylinders used in the oil lamps of the day. Furthermore, Franklin's design of the lantern with four separate panes of glass rather than one solid cylinder, facilitated more economical maintenance should the glass shatter or crack.[69]

Electric lighting was first proposed for the lights south of Independence Hall in 1951, when Charles Peterson made suggestions on how to modify the existing AIA lanterns for electricity and simulate the effect of the original c. 1800 oil lighting.[70] At this time both the AIA colonial style lamps and earlier Victorian lamps could be seen on the square in photography of the period.

The current lighting at Independence Square is an interpretation of colonial lighting. South of Independence Hall, the light standards and fixtures date to the 1915 redesign of the square under the supervision of the Philadelphia Chapter of the AIA These AIA fixtures served as examples for the lamps installed in Washington Square in 1958. It is likely that deteriorated lamps at Independence Square were also replaced and at the same time electrified when the lamps for Washington Square were being manufactured.

Significance: Existing light fixtures which date to the 1915 redesign by the AIA relates to the context of *Historic Preservation — Professionalism in the Early 20th Century.*

Feature — Water and Irrigation

Description: A 15-zone irrigation system provides water to the 23-acre turf area south of Independence Hall (drawing 11). The system is supplied water from the City of Philadelphia. The vault housing the main controls for the system has a large, heavy concrete lid, set within the bluestone paving (photo 76).

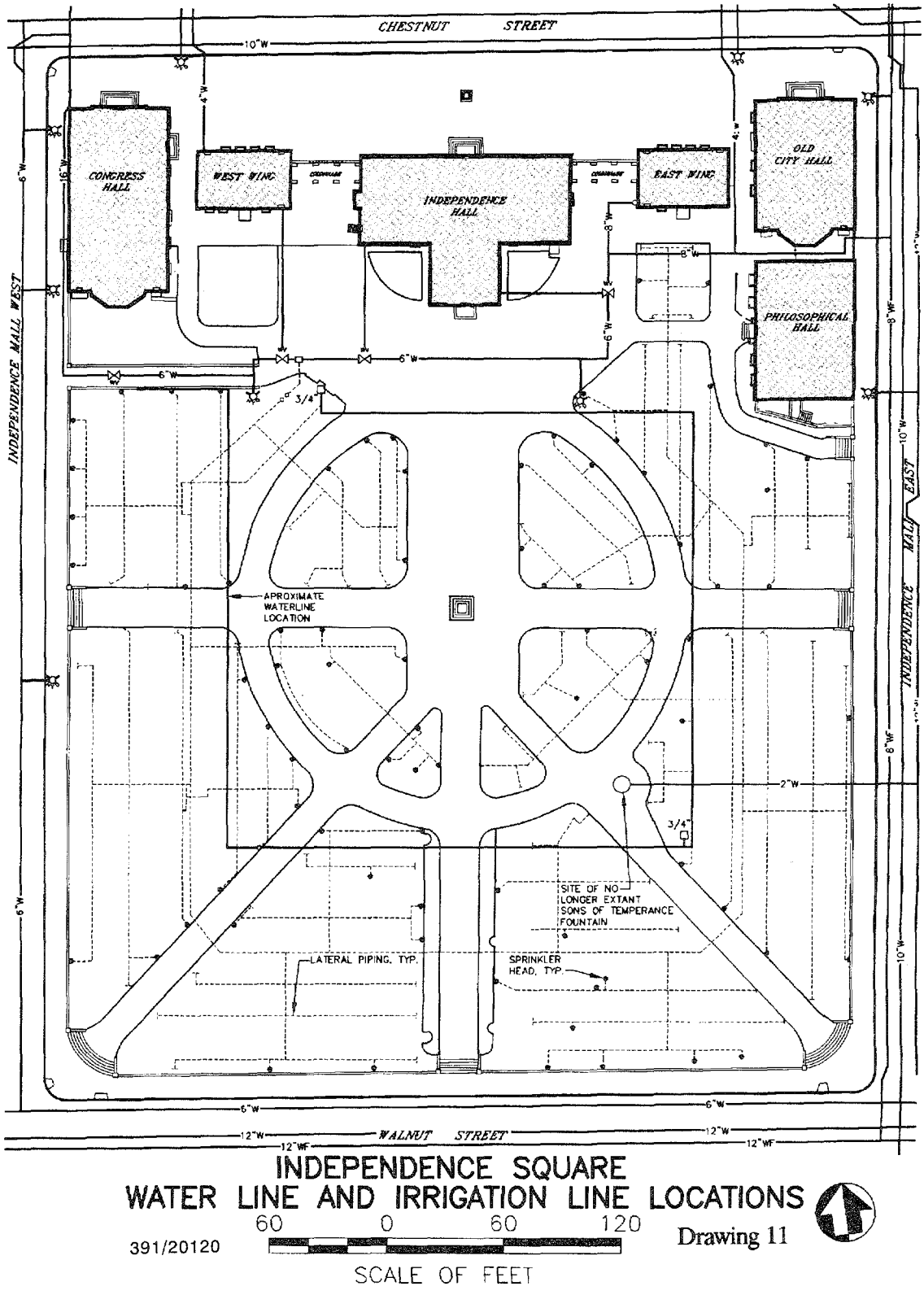
There is no irrigation system on the northwest corner for lawns by Congress Hall, the West Wing, or by the entry to Independence Hall.

Condition Assessment: Field inspection indicates that many of the sprinkler heads shown on the plan are either missing or were never installed. Discussions with park maintenance staff reveal that the original PVC piping is deteriorating creating extensive leaks. Repairs often cause spiral cracks in the extremely old brittle pipe creating even more repair work. Some new sprinkler heads have been installed during the repair operations.

According to park maintenance personnel, the general design of the system is adequate, but more quick couplers are needed throughout.

Background: The sprinkler system was installed in 1974. The only changes to the system have been as a result of routine maintenance.

Significance: Contemporary utility and service systems have not been found to contribute to the significance of the property.



Drawing 11: This plan shows the original south square irrigation system layout.



Photo 76: Concrete vault located in the south square houses the irrigation system controls.

Feature — Seating

Description: Seating at Independence Square consists of teak benches, found throughout the south square, along the bluestone walks. The benches are "off the shelf" and commercially available for replacement needs. benches are anchored to the bluestone paving in most locations. The benches are unpainted and allowed to weather to a silver-grey color. While not historic, these benches have a subdued and subordinate expression which is compatible with the overall character of the square (photos 77 and 78).

Condition Assessment: The benches are in good condition.

Background: Seating at Independence Square is an important feature in the landscape. The expression of the style of seating in the square has constantly changed with the fashion of the times.

Records connected with Samuel Vaughan's 1785 plan indicate that 94 feet of red cedar logs were delivered to the square to be made into two 9-foot-long garden benches.[71] Between 1802 and 1812, more seating was added including benches 12 feet in length as well as four single seats.

During this time, regrets were also being expressed towards the seating in that it seemed to be usually occupied by "indecent visitors."[72] The replacement of the benches with iron stools in 1842 may have been initiated as a device to encourage loiterers to move elsewhere.[73] However, complaints of "idlers" continued into 1849.[74]

By 1862, recommendations were being made to install seats with backs, a reflection that the existing seating was uncomfortable to vagrants and the elite alike. This was prompted by a

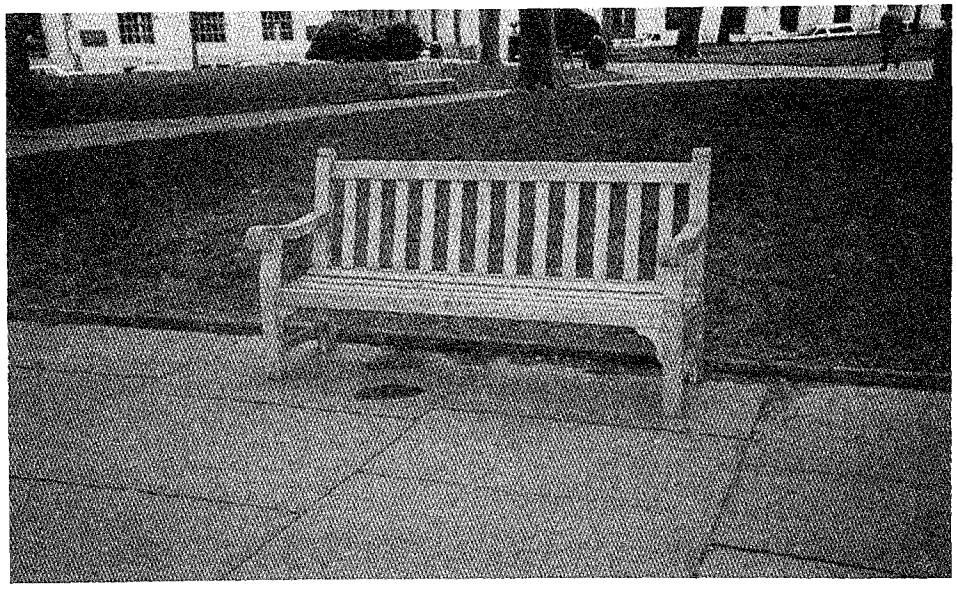


Photo 77: Typical bench found in the south square.

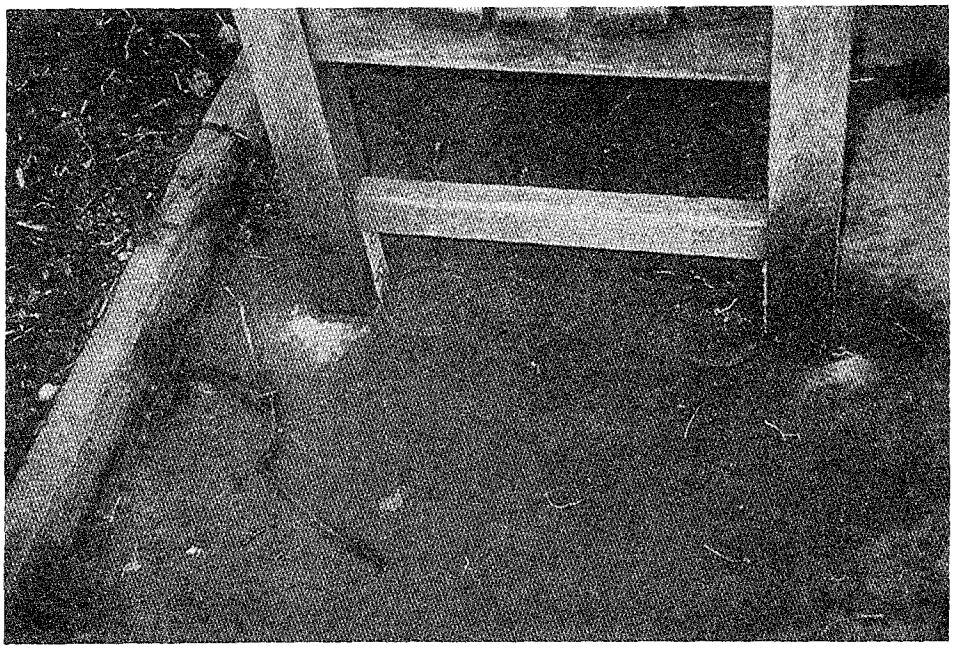


Photo 78: Bench anchoring brackets are embedded in the paving.

council bill which called for seats for parks and public squares. It was recommended that benches be made with an iron form and oaken slats, similar to those found in New York City's "Central Park."[75] It is unclear if these "Central Park" style benches were ever installed. In 1869, new stools were installed, this time with "sheet iron tops of a convex form," which resembled "toad stools."[76] Benches were again installed in 1883, but the city council ordered them removed the following year.[77]

By the 1930's the deteriorated condition of the city's squares drew criticism from the local press, leading to a beautification program which included the installation of 12 new "boulevard" style benches to replace the collection of older benches in place at this time.

The present benches were installed in the 1990's, and are of a style now used throughout the park.

Significance: It is the traditional use or activity of sitting, rather that the design expression of the furniture which relates to the significance of the property. Provision for public seating relates to both historical *feeling* and *design* of the square during various periods. The continuity of this use of the square extends back to the Vaughan plan of 1784-1787, and thus relates to the contexts of *Philadelphia, Capitol City, 1774-1800*, as well as Politics and Government. This traditional use was retained throughout the property's history.

Feature — Trash Receptacles

Description: Trash receptacles are round, metal containers with dome tops and spring controlled flip doors. These "off the shelf" containers are painted dark brown (photo 79).

Condition Assessment: Maintenance staff indicate that the springs require regular maintenance, and that the whole receptacle can be easily moved and tipped over, making it susceptible to rats. Trash receptacles which can not maintain a seal attract squirrels and yellow jackets. Many of the receptacles are dented, but they are generally in good condition.

Background: There are few clues in the history as to the types of trash receptacles used in Independence Square. 1930's photographs in National Geographic show common galvanized metal trash cans attached to posts, without lids.

The present trash receptacles are NPS era, and are of a style which is currently used throughout the park.

Significance: The generic provision of waste receptacles, rather than their design expression, are necessary elements in a public open space relating to *community planning and development*. Existing contemporary trash receptacles have not been found to contribute to the significance of the property.

Feature — Flagpole

Description: The flagpole is 70 feet tall, and is constructed of steel and painted silver. The flagpole is topped with a flying eagle carrying a ball (photo 80).

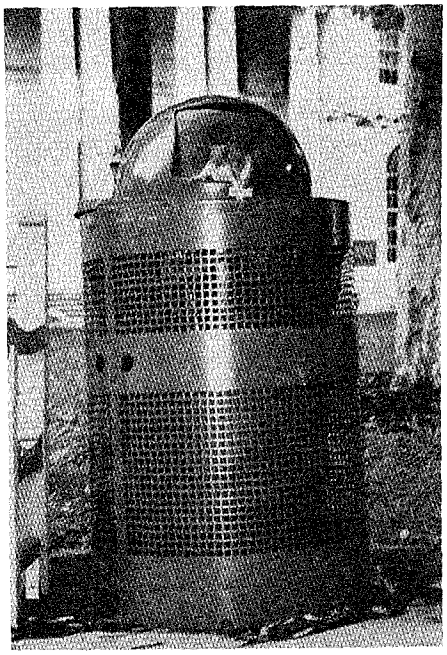


Photo 79: Brown painted metal trash receptacles found throughout Independence Square.

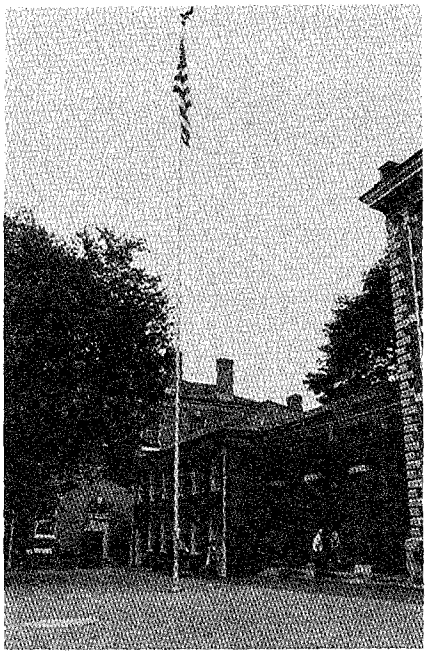


Photo 80: Flagpole located north of Independence Hall along Chestnut Street.

Condition Assessment: The flagpole appears to be in good condition.

Background: Prior to 1926, the United States flag was displayed on a flagpole mounted on Independence Hall itself. This early pole appears in historic photographs placed at the center of the roof of the building in line with the bell tower to the south. The flagpole was braced with four guy wires which held the tall pole upright.

In 1926, in preparation for the celebration of the Sesquicentennial of the signing of the Declaration of Independence, the present flagpole was erected south east of the bell tower, on a site then speculated to be the location of the 1769 "Transit of Venus" Observatory. In 1958, after the NPS had assumed stewardship of the property, the flagpole was moved to its present location on Chestnut Street in front of the east wing.

Significance: The current flagpole and its location date to the more recent history of Independence Square. As a new feature the flagpole does not contribute to the contexts discussed in Chapter 2. However, if new information becomes available finding the sesquicentennial celebration significant, then the flagpole would contribute to this later historical context.

Feature — Iron Bollards and Chains

Description: Cast iron bollards are located in the south square behind the cobblestone drive walls and around grass beds and shrub plantings in heavy traffic areas. The bollards are low round iron posts with ball tops, painted black, and strung with heavy gauge chain. These

features are intended to control pedestrian foot traffic and protect the turf on the site (photo 81).

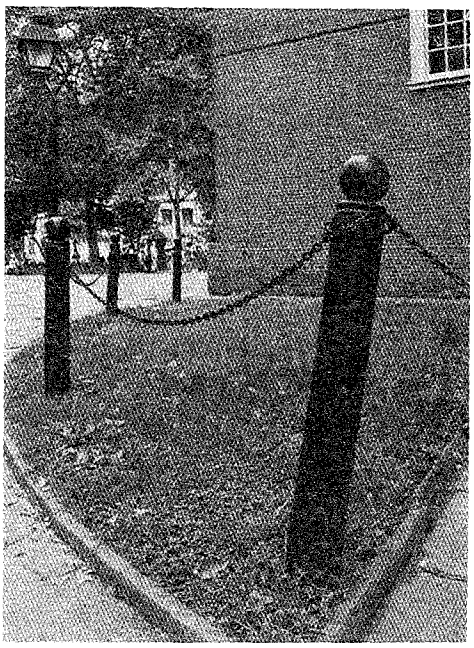


Photo 81: Cast iron bollards and chain barriers line the lawn areas south of Independence Hall.

Condition Assessment: The cast iron bollards appear to be in good condition. A few need to be straightened. Some are missing the chain barrier such as the bollards on the turf plot south of the East Wing. All bollards need repainting.

Background: Bollards have long been used south of Independence Hall to keep pedestrians to the walkways and off the grass. In 1828, a drawing of the square shows the State House with its new steeple, designed by William Strickland as a "restoration" of the missing original. This view shows a line of posts and chains along the central pathway and along the bowed pathways on the northern end of the yard.[78] Once the new corner entrances were created into the square at the southeast and southwest corners in the 1830's, records indicate that councils also authorized the placement of "chains and posts" to protect the grass plots that were being damaged as a result of the new circulation pattern.[79]

Photographic evidence from the 1860's documents bollards that were painted white placed along the surviving serpentine walks of the original Vaughan landscape.[80]

The existing iron bollards and chains were introduced to the square as part of the 1915 AIA redesign. These iron posts were placed at the edges of the new brick aprons designed for both the north and south facades of the Independence Hall group of buildings. The bollards were intended to assist in setting the State House apart from the busy activities of both Chestnut Street and the square to the south.[81] Bollards were removed from the north square along Chestnut Street as a part of the 1974 reconstruction, and were marked for salvage. While these AIA bollards were removed from the edges of the brick aprons surrounding the buildings, they continue their intended function in directing pedestrians and protecting the grass in the square south of the buildings.

Significance: As part of the work directed by the AIA in 1915, this feature relates to the context of *Historic Preservation — Professionalism in the Early 20th Century.*

Feature — Wooden Bollards

Description: Wooden bollards occur along both Chestnut and Walnut Streets. The bollard height is 3 feet 6 inches tall above grade, and are made from posts 6 feet long and 10 inches in diameter. The turned posts feature simple domed tops. The bollards on Chestnut Street

feature 2-inch wide iron rings or bands riveted to the bollards 12 inches below their tops, each with a 3-inch iron ring (photos 82 and 83).

The wooden bollards are spaced 10 feet and 11 feet on center along Chestnut Street, and sit 1 foot 4 inches back from the outside edge of the granite curb. They are set in a 6-inch deep concrete sleeve, with sand tamped between the bollard and the sleeve.

Condition Assessment: The wooden bollards appear to be in good condition. They are occasionally hit by vehicles and several are missing, however, only the base of one of these is evident.

Background: The historical narrative provides the following information about the red cedar wood bollards of the period. "...The footways are defended from the approach of carriages, by rows of posts placed on the outside of the s, at the distance of 10 or 12 feet from the other..."[81] Prints and engravings by Charles Willson Peale (1778) and James Peller Malcom (1792) document the existence of these features at this time. The date when these wooden bollards disappeared is uncertain, however a drawing dating to 1825 indicates that these features had disappeared by this time.

The current bollards were installed in 1974 as a part of the sidewalk restoration undertaken by Independence National Historical Park in an effort to reflect the conditions extant during the "Capitol City Decade." The bollards were reproduction features belonging to those sidewalks, and were based on narrative and pictorial evidence surviving from the period.

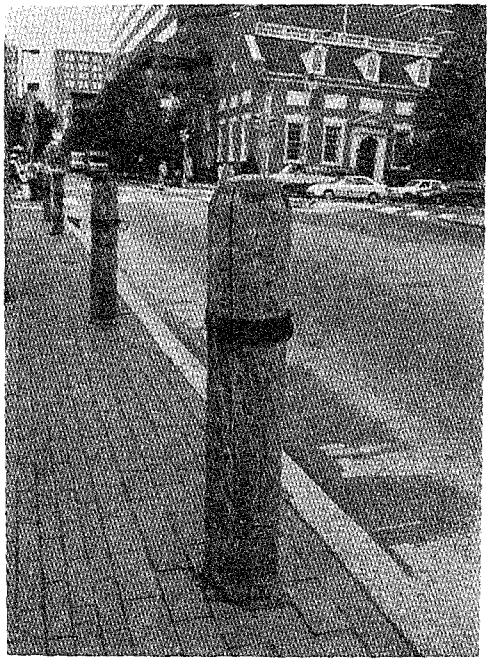


Photo 82: Wooden bollards found along Chestnut Street. Note the iron band with metal ring attached.



Photo 83: Plain wood bollard typical of those found along Walnut Street.

To assist in protecting the resources of Independence Square against possible terrorist attacks, there are plans to install new security bollards along Chestnut Street and continuing around the perimeter sidewalks to the south walls of Congress Hall and Philosophical Hall. Bollards will also be located at the top of all stairways of the south square. Ideally bollards would be installed along Walnut Street as an added measure of protection but current funding is not sufficient to cover this expense.

The bollards to be installed along the curb line are planned to be slightly larger, and spaced more closely than the historical reproductions now located on Chestnut Street. To prevent vehicular access to the square and resist impacts from vehicles, the design calls for the bollard to be constructed of a concrete filled steel pipe with a glue-lam wood shell. The bollard designed for the top of the stairways will be a concrete filled steel pipe capped with metal balls similar to the ones found lining the lawn areas south of Independence Hall.

Significance: As reconstructions installed during the 1970's the wooden bollards are intended to interpret *Philadelphia, Capitol City, 1774-1800.* This reconstructed feature is not itself historically significant.

Feature — Ornamental Cannon

Significance: As part of the work directed by the AIA in 1915, the placement of ornamental cannon as protective fenders relates to *Historic Preservation — Professionalism in the Early 20th Century.*

See cobblestone driveway, above.

Feature — Watchboxes

Description: Two small sentry huts, or "watchboxes," are located in the north square: one by Old City Hall and one by the entry to Independence Hall. Two watchboxes are also located in the south square: one by Philosophical Hall and one on a diagonal bluestone walk near the cobblestone driveway. The watchboxes are small hexagonal wood structures, 3 feet 6 inches in diameter, and 8 feet high to the roof, or 10 feet high overall. They are painted brick red, with wood shingle roofing (photo 84).

The watchboxes in the area along Chestnut Street are anchored to concrete foundations set into the exposed aggregate paving. In addition, these two watchboxes have lantern type fixtures mounted on top (photo 85).

Condition Assessment: The watchboxes appear to be in good condition.

Background: The security of the expensive improvements to the State House square had been a concern ever since Samuel Vaughan began the implementation of his landscape design in 1785. That year, the grand Walnut Street gate was fitted with a padlock so that the grounds could be closed after dark. During 1789, as an added precaution, five lamps kept the square lit after sunset and two watchboxes provided shelter for three guards.[83]

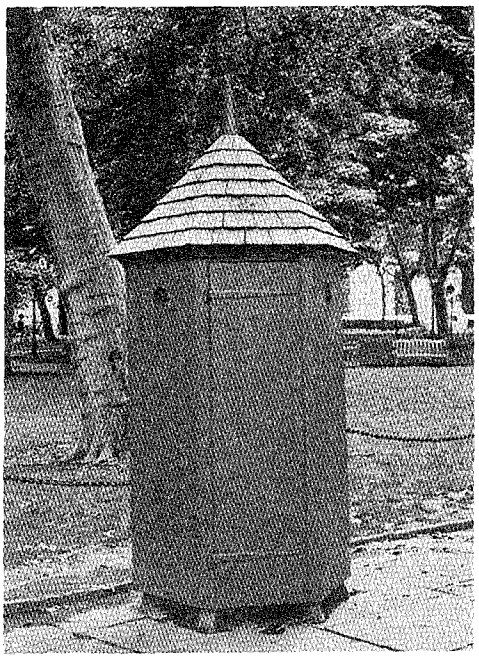


Photo 84: Wood watchbox without lighting.

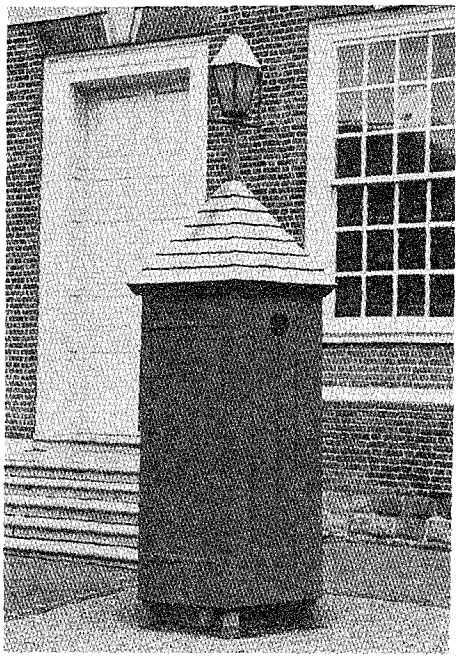


Photo 85: One of two watchboxes located along Chestnut Street. Note the rooftop light fixture.

At some point, the watchboxes were removed from Independence Square, but the date has not been documented. In 1921, an entry in the journal of the superintendent of Independence Hall recorded the visit of a representative of the city's Property and Forestry Division who expressed an interest in restoring the "old time Watchman boxes...at once."[84] However it would be another forty years before this came to pass.

In the early 1960's, during the early tenure of the National Park Service, watchboxes were again installed on the square.[85] These watchboxes, still present on site, were designed by W. Stowell in 1964 based on data from various Birch engravings and an extant 19th century watchbox which stood near the Friends Meeting House at Arch and Third Streets. It is uncertain if any archeological data were considered in the watchbox design or in determining their current locations. The two watchboxes in the area north of Independence Hall were installed on concrete foundations as a part of the 1974 reconstruction of the north square, and are the only examples that are topped with lamps, based on the historical pictorial record.[86]

Significance: As reconstructions installed during the 1970's the watchboxes are intended to interpret *Philadelphia, Capitol City,1774-1800*. This reconstructed feature is not itself historically significant.

Feature: Pumps

Description: The two hand pumps are non-functioning reproductions of 18th century style water pumps. They feature an octagonal housing between 5 and 6 feet in height and are surmounted with a turned wooden ball finial. The iron pump handle features a sweeping

curve and the wooden spout is reinforced with iron bands incorporating an iron bucket hook. The pumps are set in brick pavement within the exposed aggregate paving panels, in a pattern to represent the brick drains from the past. Adjacent to one of the pumps is a wood stave barrel (photo 86).

Condition Assessment: The wooden pumps appear to be in good condition. There are complaints from the rangers that the wooden barrelis often used as a trash receptacle and ashtray.

Background: In 1772, two hand pumps were placed near the curbstones on the Chestnut Street side of the State House for fire protection.[87] Brick paving around the pumps, including a brick drainage channel, was used to keep the gravel footway free of mud prior to the installation of brick sidewalks in the 1780's and 1790's. During 1821, these hand pumps were removed.[88]

Two reproductions of 1790's era hand pumps were constructed as part of the 1974 reconstruction of the north square. Both historical narrative and pictorial documentation of the period were consulted, along with more recent archaeology, in the design for reconstruction of these features.

Significance: As reconstructions installed during the 1970's the wooden water pumps are intended to interpret *Philadelphia, Capitol City, 1774-1800.* This reconstructed feature is not itself historically significant.

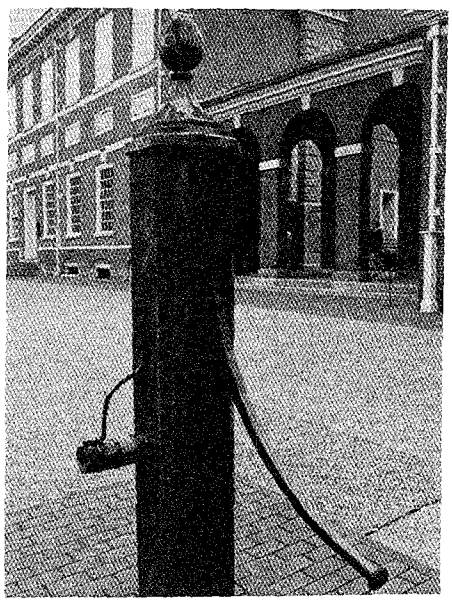


Photo 86: One of two nonfunctioning reproduction eighteenth century style water pumps located along Chestnut Street.

Feature — Interpretive and Directional Signs

Description: Interpretive signs are located near buildings on the square near both the north and south sides of the buildings. Directional signs are located at various building entrances, and on or adjacent to buildings (photos 87 through 91).

Two permanently mounted interpretive exhibit signs are located in the south square. Two temporary exhibits located in the north square are simple steel frames, painted dark brown, with replaceable fiberglass exhibits describing the current construction activities. A similar style of sign is used at the entry to Philosophical Hall.

Wood directional signs identify the building entrances for Old City Hall and the East Wing.

Condition Assessment: The exhibits are in good condition. The fiberglass faces of the signs are easily replaceable.

Background: Interpretive and directional signs date to the NPS era. The interpretive signs on the Chestnut Street side are temporary, interpreting the utilities improvement project currently underway on the buildings. When this project is complete, the signs will be removed. Exhibits on the south side are permanently mounted to the paving, and intended to remain.

Significance: Not historically significant.

Feature — Miscellaneous Traffic Related Furnishings

Description: Modern furnishings along the edge of the sidewalk include traffic signals, no parking signs, one way signs, crosswalk signs, fire hydrants, SEPTA bus stops with signs and other standard street operational furnishings common to a high traffic city street.

Condition Assessment: Many of these show evidence of being hit by cars. Traffic related furnishings are owned and maintained under the purview of the City of Philadelphia.

Background: Traffic signs, fire hydrants, and similar furnishings are an eclectic mixture of typical street furnishings used in the city.

Significance: They have no particular historical significance.

STATUES AND MEMORIALS

Statues and memorials in Independence and Washington Squares continue more than a century of memorializing the Revolution and the importance of the square in American history.[89]

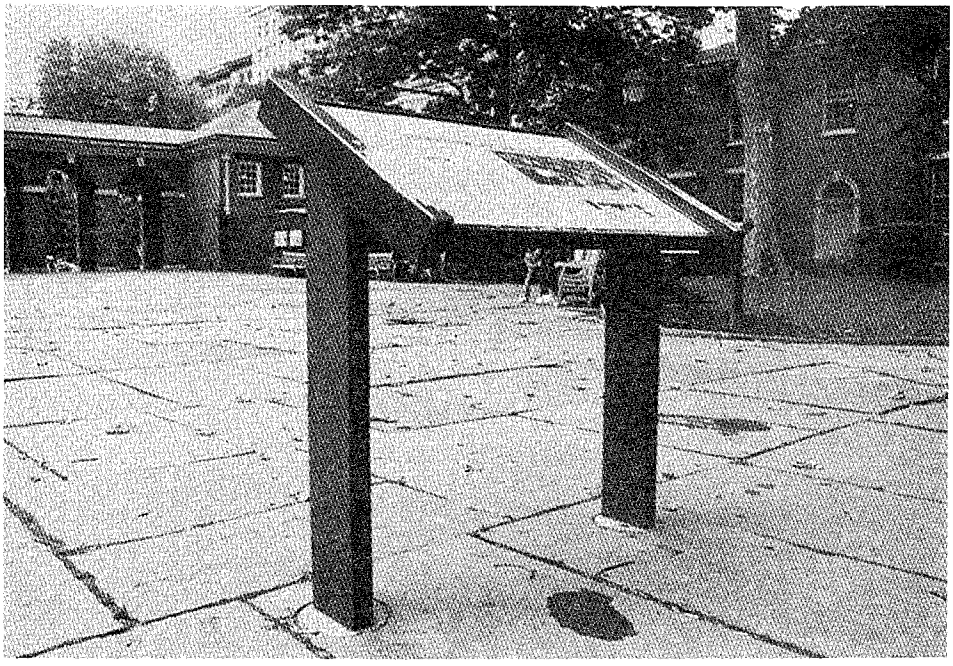


Photo 87: Permanent fixed mount interpretive sign located in the south square.

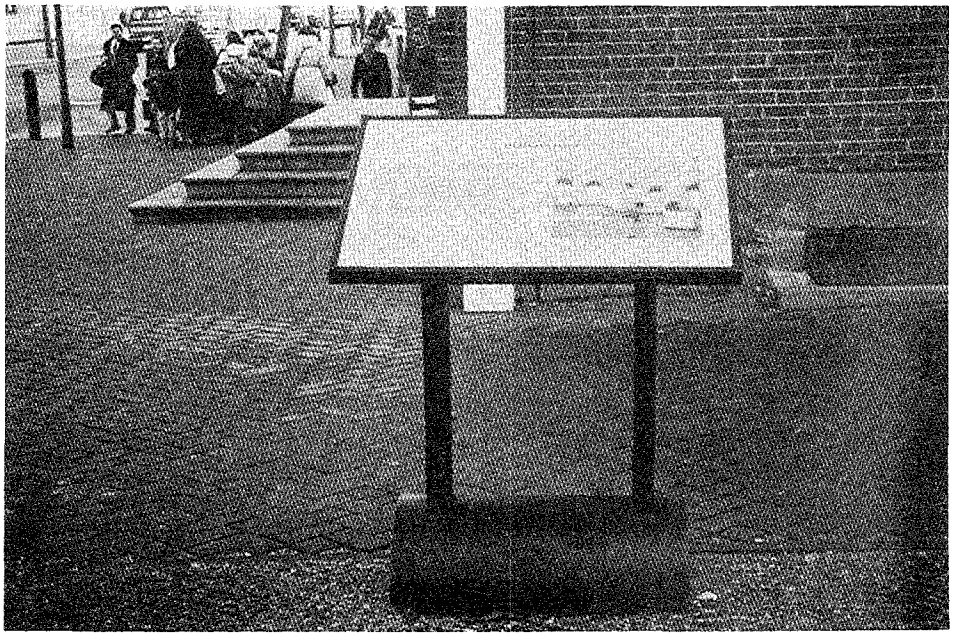


Photo 88: Temporary interpretive sign used in various locations near the north entrance of the Independence Hall building complex.

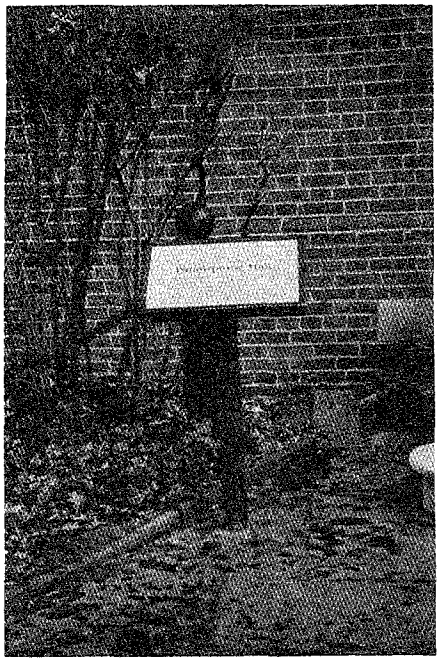


Photo 89: Philosophical Hall building name sign.



Photo 90: Independence Hall East Wing building name sign.

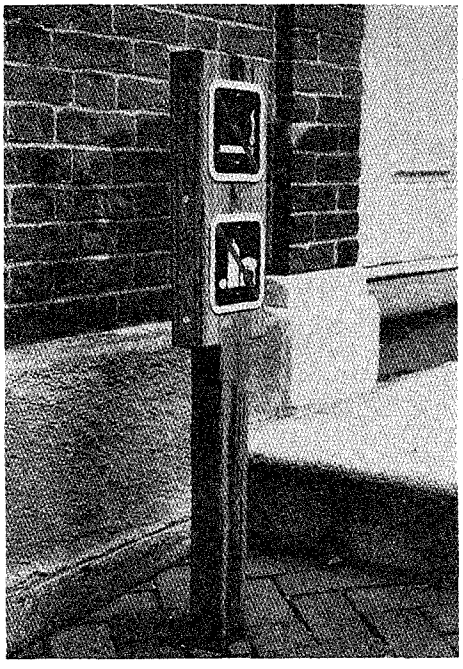


Photo 91: Regulatory sign located near the entrance to the Independence Hall building complex.

Feature — George Washington Statue

Description: The statue is located on the Chestnut Street plaza about 30 feet north of the entrance to Independence Hall.

The George Washington Statue is a bronze statue mounted on a dressed white marble pedestal. The base of the statue is 6 feet square; the pedestal is 3 feet square and 7 feet high; and the statue stands 8 feet high. Washington is depicted with his left hand on his sword and his right one on a book (photo 92).[90]

Condition: Both statue and base appear to be in good condition.

Background: Plans for a monument to George Washington began in the 1860's with a fundraising campaign on the part of the region's schoolchildren.[91] The statue was completed by J. A. Bailey for the U. S. Sanitary Commission Fair of 1864. In 1869 the statue was placed on Chestnut Street in front of Independence Hall.

At the time of its dedication, the original marble statue was placed on a pedestal of Virginia granite featuring the inscription: "Erected by the Washington Status association of the First School District of Pennsylvania, July 4th, 1869."[92] At the same time, the city council voted to surround the statue with a 4-foot-high cast iron fence.

By 1910 the statue had become weathered and worn, partly due to damage from cleaning it with muriatic acid.[93] At this time it was recast in bronze by Samuel Murray, with the new casting placed on Chestnut Street, and the original moved to Philadelphia's City Hall.

In 1919, a new base for the statue was completed in "Esperaza Blue" marble, which was thought to be much better proportioned than the original granite pedestal.[94] This marble base, quarried in Vermont, is made up of three parts, "base, die and cap," and fitted together to form the entire pedestal. In 1926, probably as part of the Sesquicentennial makeover for the square, the name "Washington" was carved into the side of the pedestal facing Chestnut Street.[95]

Significance: The Washington Statue, first installed on the property in 1869 to commemorate the American Revolution was retained in the Centennial Plan for Independence Square. The retention of this feature up to the present day is significant to the context of *Historic Preservation — Professionalism in the Early 20th Century.*

Feature — Commodore Barry Statue

Description: The statue is located in the center of the south square, at the intersection of the bluestone walks, on the main axis between the Walnut Street entrance and the bell tower on Independence Hall.

The Barry Statue is a bronze statue setting on a medium gray granite base with a bronze plaque on its north side. The base of the statue is 12 feet square, the pedestal is 11 feet high, and the statue is 8 feet high. Barry wears the uniform of the Continental Navy and has one arm outstretched (photo 93).[96]



Photo 92: Monument to George Washington is a bronze statue located in front of the entrance to Independence Hall.

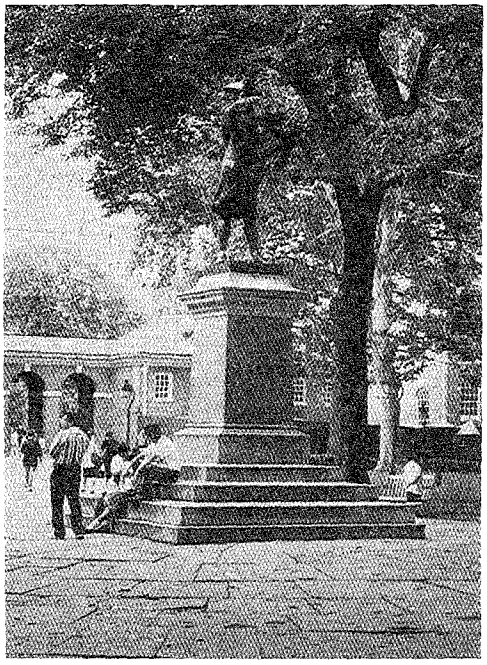


Photo 93: Monument to Commodore John Barry is a bronze statue located in the center of the south square flagstone paving.

Condition: Both statue and base appear to be in good condition.

Background: Plans for a monument in this location began as early as 1852, with proposals to erect a large monument having thirteen sides and a diameter of 60 feet.[97] The thirteen sided monument was intended to honor the thirteen original colonies. However, by 1857, the proposal was protested with the overwhelming sentiment that Independence Square retain its simplicity as a public green and as the setting for Independence Hall.[98] These protests, and the ensuing Civil War which tore apart the original thirteen states, put to rest these early plans for a monument in the center of Independence Square.[99]

After the Civil War, plans for a monument in the center of the square again surfaced as part of the Dixey Centennial plan for the square, and the other proposals which had preceded it. The Dixey plan called for ..."The pedestal for the proposed statue is to be placed at the intersection of the main paths, bringing it on a line with Library and Sansom Streets..." [100] Yet even with a space reserved for the monument, the site remained vacant for an additional 32 years.

A second monument to George Washington had been proposed for the site in 1891 by the Pennsylvania Society of the Cincinnati. In spite of protests by labor organizations over the proposed statue, an ordinance was passed for its authorization, only to be repealed two years later.[101]

While the circular site, 60 feet in diameter lay vacant wanting for a monument, the plot was used for many displays of seasonal flowers and plantings which were protected with a 4-foot-high cast iron fence. In the 1890's during the Victorian era, there are photographs and

descriptions of the center plot planted with displays of red, white and blue flowering spring bulbs.

In 1907, the *Friendly Sons of St. Patrick* presented the Barry Statue to the City of Philadelphia in honor of Commodore John Barry. For lack of a more inspired monument, the city placed the Barry Statue at the center of Independence Square's circular plot. The statue and its stone pedestal remained surrounded by the circular plot of soil.

In 1915, as a part of the AIA directed redesign of the square, the statue was placed on a new pedestal and the circular plot of soil was filled in with bluestone flagging consistent with the surrounding walkways on the square.

The placement of the Barry Statue in the central walkway was bemoaned by the Philadelphia Chapter of the AIA in 1914, writing, "the broad avenue which formerly led from the tower door of the State House to the central entrance on Walnut Street and which in former times afforded the interesting vista that the statue has in great measure destroyed."[102] The AIA plan attempted to mitigate the placement of the Barry Statue, by widening the central walkway north of the statue, and eliminating two small grass islands in the flagstone pavement.

The statue honors Commodore John Barry, Irish-born patriot and one of the most celebrated naval heroes of the Revolution. The statue was sculpted by Samuel Murray, a student of Thomas Eakins and a teacher at Philadelphia's Moore College of Art. After its casting in Philadelphia in 1907, the *Friendly Sons of St. Patrick* presented the Barry Statue to the City of Philadelphia, which still owns it.

Significance: The Barry Statue, first installed in 1907, contributes to the significance of the property because this feature was retained and given a new pedestal during the AIA rehabilitation which relates to the context of *Historic Preservation — Professionalism in the Early 20th Century.*

Feature — Abraham Lincoln Plaque

Description: The Lincoln Plaque is a 33" x 36" bronze tablet set into the brick pavement. It is located 30 feet north of Independence Hall, just east of the Washington Statue (photo 94).

Condition Assessment: The plaque appears to be in good condition.

Background: The Grand Army of the Republic, Post 2 of the Department of Pennsylvania placed the Lincoln Plaque on Chestnut Street in 1903. This was done in commemoration of the fact that president-elect Abraham Lincoln visited Independence Hall on February 22, 1861, to raise a 34-star flag to mark the admission of Kansas as a state. Ironically, Lincoln addressed the crowd with the words: "If this country cannot be saved without giving up that principle [of the Declaration of Independence], I was about to say, I would rather be assassinated on this spot than surrender it."[102] Following the end of the Civil War, as the war's last casualty, Lincoln returned to Philadelphia, for his body to lay in state inside Independence Hall.

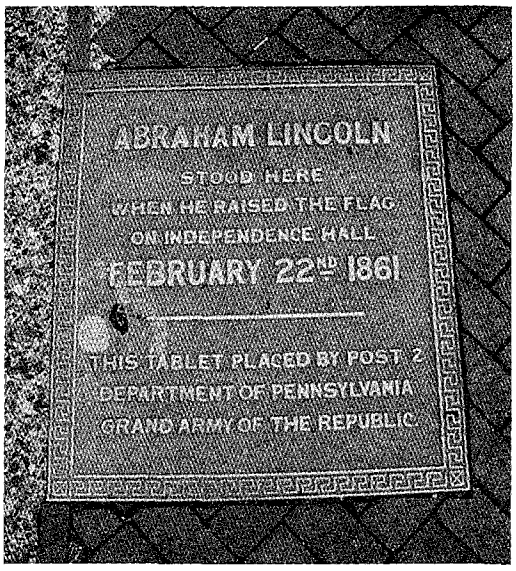


Photo 94: Plaque commemorating President Abraham Lincoln's visit to Independence Square on February 22, 1861.



Photo 95: Plaque commemorating President John F. Kennedy's visit to Independence Square in 1962.

The plaque was raised to meet the new grade of the paving in 1974, but was not relocated.

Significance: The Lincoln Plaque relates to the significance of the property because it was retained after comprehensive redesign efforts at the direction of the AIA in 1915. In this respect the plaque is associated with the context of *Historic Preservation — Professionalism in the Early 20th Century.*

Feature — John F. Kennedy Plaque

Description: The Kennedy Plaque is a 36" x 33" bronze tablet set into the exposed aggregate pavement. It is located about 10 feet east of the Washington Statue in front of Independence Hall. The plaque was installed in 1964 (photo 95).

Condition Assessment: The plaque appears to be in good condition, however, during the winter of 1996 the plaque was scraped off by one of the park's snow plows. The plaque was subsequently recast and reinstalled. Hairline cracks in the pavement radiate out from three corners of the plaque.

Background: This plaque commemorates a visit to Independence Hall by President Kennedy in 1962 to deliver the Fourth of July address. The City of Philadelphia placed the plaque in 1964, after President Kennedy's assassination.[104] When the area was repaved in 1974, the plaque was raised even with the new paving, but was not relocated.

Significance: Because the Kennedy Plaque is less than 50 years old, it is premature to evaluate its significance.

ARCHEOLOGY

Over nearly a century and a quarter, archeological investigations have been conducted intermittently within Independence Square. The earliest of these efforts dates to the c. 1874 observations of historian Frank M. Etting on the exposure by workmen of the supposed foundations of the Venus Observatory in the south square. This was to be the first attempt at archeological monitoring within the square. Etting's discovery, in turn, became the impetus for concerted archeological excavations during the first part of the twentieth century to confirm the location of the observatory. Those attempts were directed by Independence Hall curator, Wilfred Jordan, and historian, Horace Wells Sellers. No conclusive evidence for the observatory's location, however, resulted.

After a long hiatus, archeological investigations resumed in 1953 and, with a few brief intervals, continued into 1974. Studies during this period were supervised primarily by archeologists, Paul J.F. Schumacher, B. Bruce Powell, and John Cotter, with contributions in the later years by archeologists, Leland Abel, Daniel Crozier, Elizabeth Ann Gell, William Hershey, W. Jackson Moore, Jr., and Charles Wilson. This program established numerous landscape features associated with the locations of late seventeenth and early eighteenth century buildings along Walnut Street, the Vaughan Walk, the 1740 State House Yard wall, an early eighteenth century structure along Fifth Street, the 1770 State House Yard wall, the c. 1793 arcade, various wells and privies dating from the late seventeenth through early nineteenth century, and a host of nineteenth century building and landscape elements. During the 1960s, much of the archeology was conducted by interdisciplinary teams with architect, Lee Nelson, and numerous park historians playing significant roles in the definition of the Revolutionary-era Chestnut Street vista. These investigations uncovered historic brick herringbone walkways, brick s, water pump drains, pebblestone paving, round pits that may have had some utilitarian function, and limited areas stone paving. Since then, Independence Square has been the occasional subject of minor archeological projects associated with maintenance and construction activities. An example is the archeological investigation done for this report, conducted by Paul Inashima, which helped reveal the construction detailing of the south square perimeter walls. Unresolved at the end of these endeavors and remaining as a challenge for future archeologists and historians is the location of the Venus Observatory (appendix E).

ENDNOTES

1. National Park Service. Guidelines for the Treatment of Historic Landscapes. Draft, 1992.
2. U.S. Department of the Interior. National Park Service. National Register Bulletin 18, no date.
3. Bacon, 217.
4. Toogood, 10.
5. Toogood, 120.
6. Toogood, 102.
7. Toogood, 194.

8. Toogood, 395.
9. Toogood, 12.
10. Toogood, 393.
11. "Improvements to Independence Square," (c).
12. Toogood, 10.
13. As quoted in NR Nomination, 7/42.
14. Toogood, 423.
15. Rieley, 253.
16. Minutes of Assembly Sessions 9, 10, 11, 1784-87, as cited in Sellers Coll, INDE 4301, Folder 2; Pearson report in Independence Square, State House, Maintenance Vouchers, List, 1784, Oct., 10-Dec. 21, No. 1-25, State Archives, Harrisburg. As quoted by Toogood in Draft CLR, Independence Square, 73.
17. Toogood, 376.
18. Toogood, 310.
19. Toogood, 73.
20. Toogood, 122.
21. Toogood, 377.
22. Toogood, 27.
23. Toogood, 310.
24. Toogood, 233.
25. Toogood, 433.
26. Toogood, 310.
27. Physical description provided by Mr. Charles Smithgall of Lancaster, Pennsylvania, and Mr. Walter Knock, West Point Museum, West Point, New York.
28. Toogood, 118.
29. Toogood, 184.
30. Toogood, 200, 427.
31. Toogood, 231.
32. Toogood, 436.
33. Toogood, 436.

34. Toogood, 276.

35. Toogood, 277.

36. "Improvements to Independence Square," (d).

37. Toogood, 324. Also, map of 1926.

38. Toogood, 392.

39. Toogood, 15.

40. Toogood, 419.

41. Toogood, 16.

42. Toogood, 88.

43. Toogood, 427, Downing, "Landscape Gardening," 139.

44. Toogood, 431.

45. Toogood, 443.

46. Leighton, American Gardens in the Eighteenth Century, 392. Also Rehder, Manual of Cultivated Trees and Shrubs, 733.

47. Toogood, 86-87.

48. Toogood, 424.

49. Toogood, 434.

50. Lewis as quoted in Toogood, 278.

51. Toogood, 280.

52. Toogood, 53.

53. Toogood, 55, 423, 424, 431.

54. Toogood, 426.

55. Benjamin Butterworth, *The Growth of Industrial Art* (Washington, D.C.: Government Printing Office, 1892), 13. As quoted by Virginia Scott Jenkins in "*The Lawn: A History of an American Obsession.*" (Washington, D.C.: Smithsonian Institution Press, 1994) 29.

56. Toogood, 434.

57. Toogood, 434.

58. Toogood, 230, 434.

59. Toogood, 230.

60. Toogood, 255.

61. Toogood, 435.

62. Toogood, 95-96.

63. Toogood, 185.

64. Toogood, 176 and 429.

65. Toogood, 431.

66. Toogood, 223.

67. Toogood, 438

68. "Improvements to Independence Square," (e).

69. Improvements to Independence Square," (e).

70. Toogood, 369.

71. Toogood, 92.

72. Toogood, 427.

73. Toogood, 426-427.

74. Toogood, 428.

75. Toogood, 432.

76. Toogood, 433.

77. Toogood, 436.

78. Toogood, 189.

79. Toogood, 199.

80. Toogood, 234.

81. "Improvements to Independence Square," (d).

82. As quoted in NR Nomination p 7/42.

83. Toogood, 95-96.

84. Toogood, 328.

85. Toogood, 377. Toogood refers to a 1964 photograph which shows a recently installed watchbox southwest of the bell tower.

86. List of Classified Structures, 80227.

87. Toogood, 28, 420.

88. Toogood, 421.

89. Toogood, 22.

90. NR Nomination, 7/20

91. Toogood, 431.

92. Toogood, 231.

93. Toogood, 437-438.

94. Toogood, 441.

95. Toogood, 443.

96. NR Nomination, 7/20.

97. Toogood, 236.

98. Toogood, 208.

99. Toogood, 208.

100. Toogood, 255.

101. Toogood, 436.

102. "Improvements to Independence Square," (c).

103. Toogood, 212.

104. NR Nomination, 7/27.

CHAPTER 4: TREATMENT RECOMMENDATIONS

INTRODUCTION

The National Park Service developed its first formal policies regarding the treatment of historic sites and structures in 1937, responding to the passage of the Historic Sites Act of 1935. These policies embraced recently developed international historic preservation principles and included the qualitative statement, "Better preserve than repair, better repair than restore, better restore than (re)construct."[1] Since the 1930's, NPS policies have been continually refined through passage of subsequent law and public policy. These policies are intended to provide the philosophical basis for the National Park Service's long standing tradition in the sound stewardship of cultural property. They may be found outlined in *NPS 28, Cultural Resource Management Guideline*, and *The Secretary of the Interior's Standards for the Treatment of Historic Properties (Rev. 1992).*

The process of recommending a historic preservation treatment approach includes the consideration of the four possible alternatives of **preservation, rehabilitation, restoration**, and **reconstruction**. Consideration of management goals and issues associated with Independence Square has led to the selection of **rehabilitation** as the recommended treatment approach. Rehabilitation is the most consistent with the goals and direction of the *Independence National Historical Park General Management Plan and Environmental Impact Statement, Final-1996* (hereafter referred to as "the plan") including its recommendations in reference to the park's "cultural zone."

RELATIONSHIP TO THE GENERAL MANAGEMENT PLANNING

The process of developing historic preservation treatment recommendations for Independence Square has been guided by management goals documented in the plan, the subject of extensive public review and comment. However, the plan makes few site-specific recommendations regarding the treatment of the Independence Square landscape.[2] Instead, by placing the resources of Independence Square within the park's cultural management zone, the plan suggests that Independence Square will be managed according to the findings and recommendations contained in this cultural landscape report.[3]

MANAGEMENT ZONING

Independence National Historical Park's plan specifies two distinct management zones for the park:

- Cultural Zone
- Development Zone

The plan has defined the **cultural zone** as that area of the park

> managed to preserve, protect, and interpret cultural resources and their settings as defined by historic structures reports, historic resource studies and cultural

> landscape reports. This designation is applied to land containing significant cultural resources. Appropriate activities in this zone include sightseeing, strolling, and history interpretation and study. NPS development is limited to what is necessary for protection and interpretation; however, structural rehabilitation for new uses is permitted, provided that the historic resource significance and integrity is not adversely affected. Appropriate development includes historic structure and associated interpretive exhibits, kiosks, and restrooms. This zone is primarily within the blocks running from east to west and the first block of Independence Mall.[4]

The boundaries and resources of Independence Square are contained within the park's cultural zone.

The plan has defined the **development zone** within the park as that area

> managed to serve the needs of management and visitors. Areas within this zone may serve as the location of visitor centers, concession facilities, maintenance and administrative areas, parking areas, picnic areas, and ranger offices.[5]

Graphic depiction of the developed zone within Independence National Historical Park shows this zone as those areas of the park excluded from the cultural zone.

INTERPRETIVE THEMES

The Independence plan recognizes that the activity of providing interpretive and visitor programs may appropriately lead to physical developments at Independence Square.[6] This fact makes the consideration of the interpretive mission of the park vital to the selection of a treatment approach for the landscape. The primary interpretive themes identified by the plan mirror those developed for the 1988 Nomination prepared for the National Register of Historic Places. These themes build upon the purpose for the park cited in the original enabling legislation.

Primary Interpretive Themes

1. Founding and Growth of the United States, 1774-1800
2. Philadelphia, Capitol City, 1774-1800
3. Benjamin Franklin, 1765-1790
4. Architecture, no dates

The management goals and strategies proposed by the plan include conveying the *meaning of the democratic ideals* represented by colonial and early federal period by extending the story of the park beyond its primary themes. The plan has proposed a strategy to accomplish this by both enriching and broadening the story told by the park to include physical and temporal connections to the surrounding city and its diverse populations. This includes telling the story of the city Philadelphia, the owner of record for both Independence Square and the Liberty Bell, by cooperating with community based cultural institutions to interpret the city's

history. This goal has led to the inclusion of additional interpretive themes which have been documented as part of the plan.[7]

Secondary Interpretive Themes

1. American Architecture, 1727-1834
2. Historic Preservation, no dates
3. Banks of the United States, no dates
4. People of Philadelphia, no dates

LANDSCAPE SIGNIFICANCE AND IMPLICATIONS FOR TREATMENT

According to the National Register Program, the quality of significance in American history is present in properties that possess integrity of location, design, setting, materials, workmanship, feeling and association. The National Register defines significance in terms of a property's association with an important event or person, for its design or construction value, or for its research potential. A property may be significant at the national, state or local level.

Independence Square is a historically significant designed landscape. The square is a contributing resource of Independence National Historical Park. It is associated with the "Founding and Growth of the United States, 1774-1800." This cultural landscape report, however, has evaluated additional historic themes in order to determine whether the square is significant within other contexts and to later periods. Based on the historical narrative and the analysis of integrity and significance, which is part of this cultural landscape report, additional areas of significance related to memorialization, historic preservation, politics, and community planning have been identified. As a result of this effort, it does indeed appear that the 260 year history of the square contains periods and areas of significance extending well beyond the beginning of the 19th century. Thus, this report has identified and evaluated the following additional historical contexts.

Proposed Additional Historical Contexts

- The Centennial of American Independence, 1875-1876
- Independence Square in the Early 20th Century
- Philadelphia Politics and Government, 1765-1870

Other potential historic contexts have also been identified in this report. They include: Urban Squares, Architectural Significance of Independence Hall, the Evolution of Historic Preservation Practice, 1928-1976, and Civic Improvements in Philadelphia and the City Beautiful Movement. However, these contexts have not been fully evaluated and may require further study.

One implication of identifying multiple contexts and periods of significance for Independence Square would be to extend the scope of what is thought of as the "historic period" to intervals within a span of almost 150 years. At Independence Square there has been considerable change and diminished physical integrity from the earliest periods. Given the proposed multiple periods of significance for Independence Square, this would suggest the identification and retention of features and characteristics that contribute to the significance of later periods. Thus, it becomes difficult to advise removal of significant later additions and changes in order to depict an early point in the property's complex history.

TREATMENT ISSUES

Cultural landscape management involves identifying the type and degree of change that can occur while maintaining the integrity of the landscape through retention of its character-defining features and characteristics. In order to be helpful, landscape treatment recommendations must find a balance between historic preservation goals and operational and park management needs. Choosing a treatment approach and shaping the details are worked out by first identifying the central issues which are moving the landscape towards change.

1. Treatment of Deteriorating Landscape Features and Characteristics

   The treatment of the cultural landscape of Independence Square, along with its associated features and characteristics, has become necessary in part due to progressive deterioration. The treatment of the historic materials, finishes, features, and characteristics of Independence Square must comply with the *Secretary of the Interior's Standards for the Treatment of Historic Properties* as well as *NPS-28 Cultural Resource Management Guideline*, Chapter 7: "Management of Cultural Landscapes."

2. Improved Visitor Safety

   Concern for the safety of the visiting public has called into question the adequacy of outdoor lighting at Independence Square. As part of this treatment project, the existing lighting will be evaluated to determine the nature and scope of any deficiency. The installation of additional lighting must be done in a manner compatible with the historic character of the square and must consider any negative consequences of higher intensity lighting on the square's trees and the quality of the light affecting the night time character of the square.

   The anti-terrorism bollard project is being undertaken to protect the historic resources and for visitor safety as well.

3. Accommodating Universal Accessibility

   Universal Accessibility to Independence Square: Access to the Independence Square south of Independence Hall is currently possible from Chestnut Street. However, universal access to the square from Walnut Street is currently impossible due to the flights of stone stairs at these entrances. One of the issues that the proposed treatment project must address is the feasibility and desirability of providing access to the square from the south, considering its potential effect on historic resources.

Universal Accessibility to Independence Hall Group of Buildings: The goal of providing universal accessibility to the interiors of the Independence Hall building group has implications for the treatment of both historic architecture and landscape.

4. Improved Resource Protection and Barriers to Vehicular Access

   The "proposed action" identified by the park's general management plan includes a proposal to close the 500 block of Chestnut Street to vehicular traffic. These plans are partially a result of a perceived need to protect historic resources from possible damage associated with vibration, exhaust, random accidents or willful acts of sabotage which may accrue due to convenient vehicular access. While this goal may take some time to accomplish, as an interim measure, this treatment project must deal with issues related to controlling unwanted vehicular access into the square.

5. Consideration of Maintenance Requirements

   Maintenance resources within the National Park Service are continually being stretched in an effort to accomplish more work within a static funding environment. The potential benefits of any treatment recommendation for the square must be balanced against implications for maintenance resources.

6. Reconciling Multiple Historical Themes

   The buildings present on Independence Square have been largely restored or reconstructed in an attempt to depict their appearance prior to 1781 when the belltower was removed due to deterioration. This work successfully addresses the primary interpretive themes identified by the park. However, these buildings occupy a square which has continued to evolve, presenting a complex layering of features and characteristics from many subsequent periods. During the 1960's and 1970's the perimeter sidewalks and the wide building forecourt facing Chestnut Street were surfaced with brick and simulated pebblestone pavement to reflect conditions extant during Philadelphia's "Capitol City Decade," which along with "Founding and Growth of the United States" has been identified as among the park's primary interpretive themes. However, this perimeter treatment has created a anachronistic relationship with the interior of the square which lays to the south of Independence Hall. The majority of features and characteristics of Independence Square south of Independence Hall dates to re-design efforts in the early 20th century after the city government had moved to Market Square. These 20th century changes help illustrate secondary interpretive themes identified by the park's plan such as "Historic Preservation" and "People of Philadelphia." The process of selecting a treatment approach for the Independence Square landscape must deal with the complex physical history of the site, and reconcile the park's primary and secondary interpretive themes.

HISTORIC PRESERVATION TREATMENT ALTERNATIVES

The Secretary of the Interior has specified standards for four distinct, but interrelated, approaches to the treatment of historic properties. **Preservation**, focuses on the maintenance and repair of existing historic materials and retention of a property's form as it has evolved over time. **Rehabilitation** acknowledges the need to meet continuing or changing uses

through alterations or new additions while retaining the property's historic character. **Restoration** is undertaken to depict a property at a particular period of time in its history, while removing evidence of later periods. **Reconstruction** recreates vanished or nonsurviving portions of a property for interpretive purposes.[8]

TREATMENT STRATEGIES CONSIDERED BUT NOT RECOMMENDED

A **preservation** approach would prescribe the maintenance and stabilization of the features of Independence Square as they currently exist. Preservation, as a "treatment" in the field of historic preservation is a process of applying measures to arrest or retard deterioration caused by natural forces and normal use, as opposed to substantial efforts to reverse existing deterioration or to improve conditions. A preservation approach seeks to sustain the *existing* form, integrity, and materials of a historic property. This approach would allow replacement of existing features in kind, yet would discourage the addition of new features necessary for the contemporary use of the square, such as the installation of interpretive exhibits. Preservation as a treatment may prescribe a high degree of in-kind replacement in an attempt to preserve the existing form and features of the landscape. For example, a preservation approach for dynamic landscape features might prescribe the management and replacement in kind of individual trees, which in many instances are not individually significant as specimens.

In reference to management level treatment issues identified earlier in this report, a preservation approach would limit the reversal of existing deterioration to stabilization and repair. The preservation of the existing form and features of the site would facilitate a reconciliation of primary and secondary interpretive themes as features currently address multiple themes. However, a preservation approach would suggest less flexibility in the accommodation of universal accessibility, and argue against the installation of additional barriers to vehicular access or the installation of supplementary lighting for visitor safety. For these reasons, as well as the goals for the landscape of the cultural zone, as identified by the plan, the selection of preservation is not recommended as an appropriate treatment strategy.

A **restoration** approach for Independence Square would require the accurate depiction of the property at a fixed date or period in time. This approach would involve the removal of features from later periods and the reconstruction of missing features from the restoration period. The "period of significance" of 1774-1800 identified by the park's nomination form to the National Register, would suggest the depiction of the square circa 1800 if a restoration strategy were pursued. However, a restoration strategy consistently applied to the building and grounds of Independence Square would have serious implications. As a case in point, the coincidence of the distinctive steeple on the building with grounds landscaped with trees and walks did not occur until 1828. Prior to the, Samuel Vaughan landscape plan of the mid 1780's, the grounds of the "State House Yard" were more akin to those of a service or utility yard. By the time that Vaughan had installed the walks and landscaping, the steeple above the State House had become unsound and had been removed. A contemporary interpretation of the original steeple was not replaced until 1828 and is itself significant as perhaps the earliest effort at historic preservation in this country. As an alternate, choosing 1828 as the fixed point in time for restoration is equally problematic. An accurate restoration of Independence Square to 1828, in keeping with the *Secretary of the Interior's Standards for the Treatment of Historic Properties* would prescribe the removal of the George Washington Statue

fronting on Chestnut Street as well as the Barry Statue in the center of the square. An 1828 restoration would also involve massive ground disturbance to potential archeological resources, made necessary by the removal and replacement of the perimeter brick retaining wall, stone stairs and bluestone walks. Recreation of pathways and circulation patterns from this earlier period would require the removal of many of the square's trees and threaten the integrity of the canopy of branches overhead.

Choosing c.1916 as a restoration period, would aim to restore the landscape to its appearance following the AIA redesign efforts early in this century. Since the Independence Square landscape retains the highest degree of integrity from this period, restoration to this later date would be less invasive than earlier restoration options. However, a restoration to c. 1916 would imply taking such measures as the reconstruction of the historic flagpole atop Independence Hall, the restoration of the Sons of Temperance Fountain, and the removal of the cannon fenders placed on the cobblestone driveway in 1919. Restoration to c. 1916 would also suggest the removal of the work undertaken by the National Park Service to depict conditions extant during the "Capitol City" decade. This would include the removal of brick and pebblestone sidewalks, as well as reproduction features such as the watchboxes, handpumps and bollards.

The Independence Square landscape represents a complex layering of features surviving from various periods in its historical development. This landscape has evolved into its present form through the action of colonial, state, city and finally federal authorities which have acted as the property's stewards. This stewardship has been advised by numerous individuals and groups that have taken interest in the square's future as well as its past. The plan appears to recognize a goal of celebrating this complexity and diversity by seeking to broaden and enrich the story of the park beyond its primary colonial and early federal themes. For these reasons, a restoration approach leading to a depiction of the square at a fixed point in time appears ill-advised.

In reference to management level treatment issues identified earlier in this report, pursuing a restoration strategy at Independence Square would replace existing deteriorated features with reconstructed elements of the "period" landscape. However, this approach would not achieve the goal of reconciling the park's primary and secondary interpretive themes, essentially obliterating later layers of the square's physical history. A restoration approach would also seriously limit a flexible approach in accommodating universal accessibility, and suggest against the installation of additional barriers to vehicular access or supplementary lighting for visitor safety.

Reconstruction is defined as the process of depicting by means of new construction, the form, features, and detailing of a nonsurviving site, landscape, building, etc., in order to replicate its appearance at a specific period in time, at its historic location. A reconstruction approach applied to Independence Square would only be appropriate if Independence Square and its associated group of buildings had been totally destroyed or if the pre-State House landscape was determined so significant that its recreation was critical to the interpretive mission of the park. Clearly, this is not the case. In practice, reconstruction is a seldom used treatment for historic properties, and does not appear appropriate for the treatment of the Independence Square landscape. Pursuing a reconstruction approach towards Independence Square, resolves none of the management level treatment issues identified earlier in this report.

Principles of Rehabilitation Based on the Secretary of the Interior's Standards for the Treatment of Historic Properties

- The cultural landscape is used as it was historically or is given a new or adaptive use that maximizes the retention of historic materials, features, spaces, and spatial relationships.
- The historic character of a cultural landscape is retained and preserved. The replacement or removal of intact or repairable historic materials or alteration of features, spaces, and spatial relationships that characterize a landscape is avoided.
- Each cultural landscape is 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 from other landscapes, are not undertaken. Work needed to stabilize, consolidate, and conserve historic materials and features is physically and visually compatible, identifiable upon close inspection, and properly documented for future research.
- Changes to a cultural landscape that have acquired historical significance in their own right are retained and preserved.
- Historic materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a cultural landscape are preserved.
- Deteriorated historic features are repaired rather than replaced. Where the severity of deterioration requires repair or replacement of a historic feature, the new feature matches the old in design, color, texture, and where possible materials. Repair or replacement of missing features is substantiated by archeological, documentary, or physical evidence.
- Chemical or physical treatments that cause damage to historic materials are not used.
- Archeological and structural resources are protected and preserved in place. If such resources must be disturbed, mitigation measures are undertaken including recovery, curation, and documentation.
- Additions, alterations, or related new construction do not destroy historic materials, features, and spatial relationships that characterize the cultural landscape. New work is differentiated from the old and is compatible with the historic materials, features, size, scale and proportion, and massing of the landscape.
- Additions and adjacent or related new construction are undertaken in such a manner that if removed in the future, the essential form and integrity of the cultural landscape would be unimpaired.

HISTORIC PRESERVATION TREATMENT RECOMMENDED: REHABILITATION

Rehabilitation, as an approach for the treatment of historic properties, improves the utility or function of a cultural landscape, through repair or alteration, to make possible an efficient compatible use while preserving those portions or features that are important in defining its significance.[9] This approach recognizes and accepts the anachronistic layering of preservation and memorialization efforts present on the property and the values these efforts have come to represent. Similar to the direction of a preservative treatment, rehabilitation avoids disruptive efforts to compel the square into accurately depicting a fixed point in its celebrated 260-year history.

In reference to management level treatment issues identified earlier, a rehabilitation strategy would facilitate the reversal of existing deterioration of features, and also help to reconcile both primary and secondary interpretive themes because it would not obliterate later layers of the square's history. Furthermore, a rehabilitation approach would permit greater flexibility in accommodating universal access, make possible measures for limiting vehicular access, and help resolve life safety issues such as enabling the installation of supplemental outdoor lighting. Furthermore, the rehabilitation approach appears to be the most appropriate treatment for the Independence Square landscape in view of the management goals for the cultural zone identified by the *Independence National Historical Park General Management Plan and Environmental Impact Statement.*

The preceding principles, based on the *Secretary of the Interior's Standards for the Treatment of Historic Properties*, apply to a rehabilitation strategy.[10] These standards provide the philosophical basis behind the rehabilitation of all types of historic properties. The Secretary's Standards are, for this reason, broad in scope and do not address any one property type specifically.

ENDNOTES

1. Robert Page, notes. The origin of the statement "better preserve than repair, better repair..." can be first attributed to French archeologist A.N. Didron who in 1839 set down the early injunction to would be preservationists; "it is better to preserve than to restore and better to restore than to construct." (Bulletin Archeologique, Vol. 1 ,1839). This citation is also referred to by Richard H. Howland in "Travelers to Olympus" in *With Heritage So Rich*, (New York: The Preservation Press, 1983) 172.

2. The only site-specific action identified in the *Independence National Historical Park General Management Plan and Environmental Assessment* is the location of a commemorative plaque interpreting the designation of Independence Hall as a World Heritage Site. *Draft General Management Plan*, p. 54.

3. *Draft General Management Plan*, 1995, "Management Zoning," p. 15.

4. The only site-specific action identified in the I*ndependence National Historical Park General Management Plan and Environmental Assessment* is the location of a commemorative plaque interpreting the designation of Independence Hall as a World Heritage Site. *Draft General Management Plan*, p. 54.

5. *Draft General Management Plan*, 1995, "Management Zoning," p. 15.

6. *Draft General Management Plan,* "Management Zoning," p. 15.

7. *Draft General Management Plan,* "Management Zoning," p. 15.

8. Independence Square, is the center of the park's cultural management zone. As such, the plan has spelled out that "NPS development is limited to that necessary for protection and interpretation and structural rehabilitation." *Draft General Management Plan* , "Management Zoning," p. 15.

9. *Draft General Management Plan,* "Management Goals and Strategies," p. 24.

10. U.S. Department of the Interior, "Appendix C: Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation" in *NPS-28, Cultural Resource Management Guideline,* 236.

11. U.S. Department of the Interior, *NPS-28, Cultural Resource Management Guideline,* 104.

12. U.S. Department of the Interior, *NPS-28, Cultural Resource Management Guideline,* 105.

CHAPTER 5: SCHEMATIC DESIGN

INTRODUCTION

Schematic design is the first phase of the formal design process, the activity that first gives thought to creating physical forms and changes in a landscape. Doing this requires analyzing and evaluating the programmatic requirements of a particular project. The product of such an exercise, entitled the "design program", identifies the components of a landscape to be incorporated into the design along with enough information so that specific proposals may be developed. For example, the design program for a city park should include a brief description of the desired character of the space, the number of people it would be expected to accommodate, the types of activities desired, life/safety and building code requirements, maintenance concerns, the kinds of vegetation to be considered, etc. From this information several alternatives are considered that evolve into one schematic design establishing the overall development concept or concept for treatment. The schematic design addresses other specifics as well, such as construction materials and methods, design concepts for site furnishings and construction costs.

FEATURE LEVEL SCHEMATIC DESIGN PROGRAMMATIC ISSUES

The last major renovation of the southern portion of Independence Square occurred in 1915 by the AIA. The north side of Independence Hall under went reconstruction during the early 1970's in preparation for the Bicentennial celebrating the Declaration of Independence. Since these improvements, maintenance has struggled to keep up with the impacts resulting from the increasing levels of visitation and high impact functions such as visits by dignitaries. Consequently many of the features have deteriorated, some to the point of creating unsafe conditions for visitors.

Deteriorated Brick Walls

The brick perimeter walls surrounding Independence Square dates to the 1915 redesign of the landscape and features brick piers topped with marble finials. The brick walls themselves are in generally good condition. However, shifting of brick piers, loose and damaged marble copings and finials as well as drainage behind and through the walls needs to be addressed as part of this treatment project.

Deteriorated Pavement Surfaces

The pavement surfaces of Independence Square includes brick, bluestone pavers, granite stairs, exposed aggregate concrete and cobblestone. These surfaces display various degrees of deterioration which must be addressed as part of the overall treatment of the square. However, the deterioration of the bluestone walkways at the interior of the square is, by and large, the most serious problem facing the pavement surfaces of the square. These bluestone surfaces date to the 1875 redesign of the square in preparation for the nation's Centennial celebration. Many pavers have heaved and cracked during years of use which has included maintenance and event related vehicular traffic, inappropriate for the pavement's inherent

strength. Qualities of this bluestone pavement, including pattern, texture and the massive size of the bluestone pavement south of Independence Hall have been identified in this report as contributing to the significance of the Independence Square landscape.

Declining Vegetation and Replacement Strategy

An inventory and assessment of woody plants at Independence Square was undertaken during 1996. This assessment identified 88 individual trees and 44 shrub masses on site. Of the trees inventoried, all but 10 were found to require some level of arboricultural treatment. Most of the work specified involved the correction of minor problems such as poor limb structure and pest infestation. Twenty trees, however were found to harbor hazardous conditions which present health and safety issues such as dead and or hanging limbs over pedestrian walkways.

Less than fifty percent of the trees at Independence Square pre-date the 1915 AIA. redesign of the square. What is said to have been the last surviving tree from the Vaughan landscape design was removed during the 1930's, and it is estimated that no tree presently on site is over 120 years old. This report has identified the historical continuity of the tree canopy and grove of trees south of Independence Hall, and the double row of trees along Chestnut Street as the significant vegetative features in the landscape as opposed to individual specimens. Development of a coherent long-term replacement strategy for the vegetation at Independence Square needs to be developed at some point, but is beyond the scope of the schematic design.

Deteriorated Non-Historic Site Furnishings

Many features of the Independence Square landscape are not historic. These include interpretive and commemorative signage, contemporary benches and trash receptacles. The treatment plans for the rehabilitation of the square should take into account the compatibility of any replacements for contemporary features with the historic landscape.

Deteriorated or Non-Functional Utility Systems

Many different utility systems serve Independence Square. These include underground water piping for irrigation and fire suppression, electrical lines for lighting, non-functional gas piping, as well as surface and subsurface stormwater drainage systems. Deficiencies have been identified within these systems and will need to be corrected as part of the square's treatment.

The chapter entitled Treatment Recommendations identified **rehabilitation** as the preferred treatment approach for Independence Square. The Principles of rehabilitation based on the Secretary of the Interior's Standards for the Treatment of Historic Properties provide guidance on how this concept will be articulated in the landscape. This treatment approach not only provides for the repair or replacement in kind of all severely deteriorated landscape features, but additionally, by allowing for contemporary uses, it accepts alterations to the landscape in a manner appropriate to historic fabric while meeting modern management and life/safety requirements. Therefore, aside from the need to repair or replace in kind the

deteriorated features discussed above, this schematic design proposes the redesign of the exterior lighting for Independence Hall and its associated buildings, evaluating the desirability of and appropriateness of an additional accessibility ramp in the vicinity of Walnut Street, and suggests appropriate replacement materials for the exposed aggregate concrete paving fronting on Chestnut Street and along the central axis walkway in the south square.

SCHEMATIC DESIGN COMPONENTS

The schematic design is described through tasks associated with the specific site features listed below in priority order (and described in drawing 12) as determined by the extent to which each contributes to satisfying the following four NPS objectives taken from the Choosing By Advantage decision making process:

- Eliminate threats to the natural and cultural resources,
- Provide for visitor enjoyment,
- Improve park efficiency,
- Provide cost effective, environmentally responsible and otherwise beneficial development.

The priority setting was done during a project review meeting on March 13, 1997. Attending the session were members of the CLR project team and other NPS project reviewers representing Independence National Historical Park, the Philadelphia Support Office, the Olmsted Center for Landscape Preservation, and the Denver Service Center.

1. Paving, Drainage System, and Handicapped Accessibility
2. Lighting
3. Hazard Vegetation
4. Irrigation
5. Brick Walls and Stairs
6. Vegetation
7. Exhibits and Signage
8. Site Furnishings

The tasks associated with each of the above eight features are identified as either relating to maintenance needs (**m**) or design/management concerns (**d**) of the square.

Priority 1: Paving, Drainage, Accessibility

Paving and Drainage: This item addresses the need to repair the flagstone and exposed aggregate concrete paving as well as resolve accessibility for the square. As noted in the landscape feature condition assessment, the flagstone paving has several problems. Over the years it has experienced differential settlement caused by base and subgrade failure manifested in a cracked and uneven surface. Broken stones have been patched with smaller incompatible stones and in some situations with concrete. Problems of unevenness in adjacent stones have been remedied by mortaring joints between flagstones. The deterioration of the entire surface has been exacerbated by the silting in of many drop inlets

creating large areas of standing water after rainfalls. A portion of the damage to the flagstone is attributable to the high weight vehicles used by maintenance crews and dignitaries during their visits to Independence Square. Heavy vehicle usage occurs primarily in the immediate vicinity of buildings.

The following tasks are recommended:

- Clean out and repair all drop inlets. Replace all subsurface drainage piping. A functional connection to city sewer system meeting contemporary code requirements will be installed.(**m**)
- Inventory, number, remove and store existing flagstone. Repair, regrade, and compact base to meet drainage and bedding requirements. Good quality stones in areas with no indication of base problems or regrading required, will remain in place. Existing stones with only minimal cracking will be stockpiled and re-installed. Adjustments to the stone curbs (edging) will correspond to new drainage/grading requirements. Repair or replace in kind existing stone curbing as needed. Repair and adjust rim elevations of all drop inlets as needed to adequately collect pavement runoff. Re-install original flagstone, replacing damaged pieces in kind. For areas immediately south of Independence Hall and its associated buildings, a concrete sub-base is recommended to withstand heavy vehicle usage exceeding 6000 pound axle loads. Remove all small infill flagstone, concrete and brick paving that has been used to repair missing or broken flagstones.(**m**)
- Remove all utility remnants visible above ground (such as the exposed electrical wires and conduit remaining from the city's Sound and Light production) during the pavement repair operations.(**m**)
- Remove and replace all exposed aggregate concrete paving . The exposed aggregate concrete pavement has been used to replace what historically was known as pebblestone (paving). This pebblestone, according to photographs from park archives, was a well graded mix of bank run gravel and sand. The replacement exposed aggregate was intended to convey the same qualities as pebblestone, but provide a more durable low maintenance surface. However as the condition assessment reports, this material has experienced a number of problems. Therefore, the exposed aggregate concrete along the southern portion of the central walk in the south square and in the north area in front of Independence Hall on Chestnut Street should be removed. Suggested appropriate replacement materials include: seal and chip surface using a colored aggregate; gravel colored concrete pavers; and a well graded mix of bank run gravel and sand employing a soil stabilizing agent to provide a dense hard surface.(**d**)
- Repair cobblestone driveway surface as needed including removal of silt. Replace chain across entry.(**m**)

Accessibility: The following tasks are recommended:

- Provide handicapped access to Independence Hall, Congress Hall and Old City Hall. The design of the ramps originally intended for temporary use (see appendix F) will be modified to extend their lifespan and enhance their durability. Although these features will be identified as a modern addition to the historic buildings, they are designed to be easily removed if a more appropriate manner for providing accessibility is devised.(**d**)

SCHEMATIC DESIGN TASKS

RE-ESTABLISH PARTIAL DOUBLE ROW ALLEE OF TREES ALONG CHESTNUT STREET

CHESTNUT STREET

BRASS DISC SET N 71627.04 E 822261.04

BRASS DISC SET N 71621.15 E 822303.64

INSTALL SIGNS IDENTIFYING ACCESSIBLE ROUTES AND BUILDING ENTRANCES

IMPROVE EXTERIOR ILLUMINATION OF BUILDING FACADES

REPLACE EXPOSED AGGREGATE PAVING

CONGRESS HALL

WEST WING

INDEPENDENCE HALL

EAST WING

OLD CITY HALL

PHILOSOPHICAL HALL

GEORGE WASHINGTON STATUE ON GRANITE PEDESTAL

JFK METAL PLAQUE

A. LINCOLN METAL PLAQUE

REPAIR METAL BOLLARDS & CHAINS

REPAIR METAL BOLLARDS & CHAINS

INSTALL ACCESSIBLE RAMPS ON INDEPENDENCE HALL, OLD CITY HALL, AND CONGRESS HALL

REPLACE CHAIN

REPAIR COBBLESTONE DRIVEWAY

REMOVE ALL EXPOSED ABANDONED UTILITIES

PROVIDE NEW WAYSIDES TO INTERPRET HISTORY & SIGNIFICANCE OF INDEPENDENCE SQUARE

REMOVE ALL EXISTING FLAGSTONE PAVING, REGRADE SUBGRADE TO FLOW TO DRAIN INLETS. RE-INSTALL FLAGSTONE. REPLACE ALL DAMAGED STONES

BRASS DISC SET N 71574.54 E 822253.78

BRASS DISC SET N 71568.65 E 822296.37

INSTALL NEW IRRIGATION SYSTEM IN ALL LAWN AREAS

CLEANOUT ALL DRAIN INLETS, INSTALL NEW SUBSURFACE PIPING. CONNECT TO CITY SEWER SYSTEM

JOHN BARRY STATUE ON GRANITE PEDESTAL

REPLACE EXISTING SHRUB BEDS AT ALL STAIRWAYS

INSTALL HANDRAILS AT ALL STAIRWAYS (8), TYP.

REPLACE ALL DAMAGED WALK EDGING, RE-INSTALL MIS-ALIGNED EDGING

MITIGATE SOIL PROBLEMS AND RE-SOD

RE-INSTALL MARBLE COPING ON BRICK WALL, TYP.

REPAIR ALL WALK LIGHTS, REPLACE BULBS & ADD REFLECTORS, REPLACE ELECTRICAL CABLE

REMOVE ALL HAZARD LIMBS AND INSTALL LIMB BRACING ON TREES AS NEEDED

RE-INSTALL SONS OF TEMPERANCE FOUNTAIN

REPLACE MISSING TREES IN ALONG CENTRAL WALKWAY

REPLACE EXISTING EXPOSED AGGREGATE PAVING

REPAIR/REPLACE ALL DAMAGED STAIR TREADS. REPAIR BASE PROBLEMS

REPAIR ALL DAMAGED BRICK PIERS (10)

REPOINT BRICK RETAINING WALL

REPLACE ALL DAMAGED AND CONCRETE CURB RAMPS (4)

WALNUT STREET

SCALE OF FEET 20 0 20 40

Drawing 12

391/20121

In making this recommendation, other alternatives for providing handicapped access to Independence Hall, Congress Hall and Old City Hall were considered, such as: regrading portions of the south square so that the ground gradually rises to the thresholds of the buildings and, installing mechanical lifts at the building entrances.

Altering the grades in the south square would have an adverse impact on the historic fabric and cause a significant change to the character of the square. No longer would the topography appear flat, but rather the northern portion of the south square would appear as a rolling undulating surface. With the ground rising to the building thresholds of the buildings, the entry stairs would no longer be a feature of the south elevations of the buildings. For these reasons, the re-grading approach is inappropriate for this site.

Although mechanical lifts have been used to provide exterior handicapped access to buildings for many years, they are problematic for security reasons. Additionally, they require intensive maintenance and their physical size and appearance would detract from the character of the historic buildings and square. Therefore, it is recommended that lifts not be installed.

- Repair all damaged curb ramps. Replace all concrete curb ramps with brick paving so as to be compatible with the other curb ramps in the square. Adjust the location of curb ramps to more closely align with sidewalk and cross walk use patterns (as much as possible given the locations of surface and subsurface utilities).(**m**)
- Install handrails on all exterior stairways (including stairways in the arcades linking the East and West Wings to Independence Hall) to meet universal accessibility requirements. Normally handrails are installed every eight feet along the width of a stairway. However in deference to maintaining the visual appearance of this cultural landscape and minimizing impacts to historic fabric, it is recommended that handrails be placed only at the sides of the stairways. All three of the proposed railing designs (below) are intended to be free-standing, simple, unobtrusive features.(**d**)

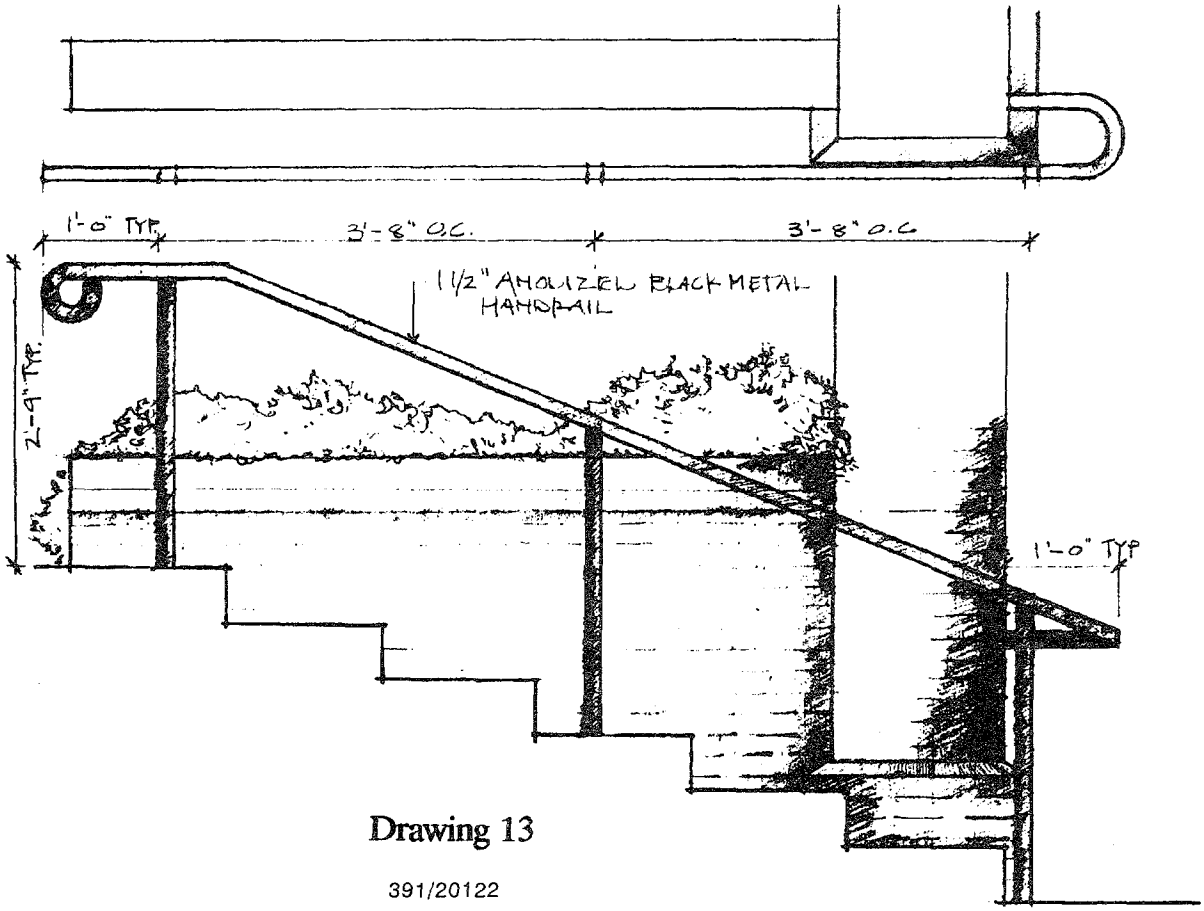
Alternative A features a single pipe black anodized aluminum handrails with curved ends for safety (drawing 13). The curve return of the handrail's lower end terminates just short of the adjacent brick pier.

Alternative B is simple a double rail structure constructed of 1-1/2 inch diameter mill finish aluminum piping (drawing 14).

Alternative C matches the railing design on the accessible ramps to the Independence Hall, Congress Hall and Old City Hall (drawing 15). Although this alternative provides a modicum of consistency with these other structures, for this application the balusters are unnecessary.

It is recommended that alternative A be incorporated in the rehabilitation of Independence Square. Its simple design causes the least impact while adequately meeting management requirements.

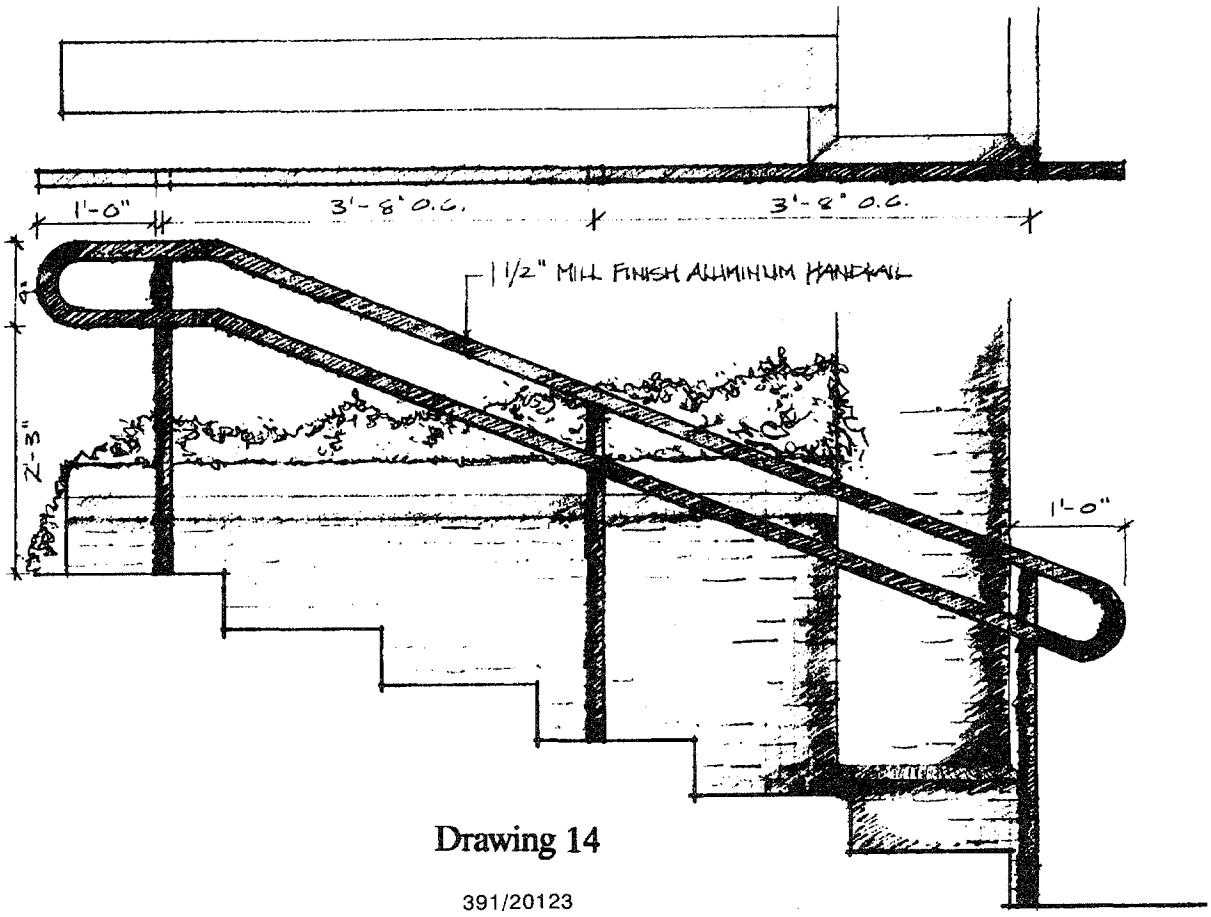
Over the years there have been proposals to provide accessible ramps at the southern end of the square along Walnut Street. These stem, in part, from the city's intent to re-instate the Sound and Light show at Independence Square as well as the desire to provide a more



Drawing 13

391/20122

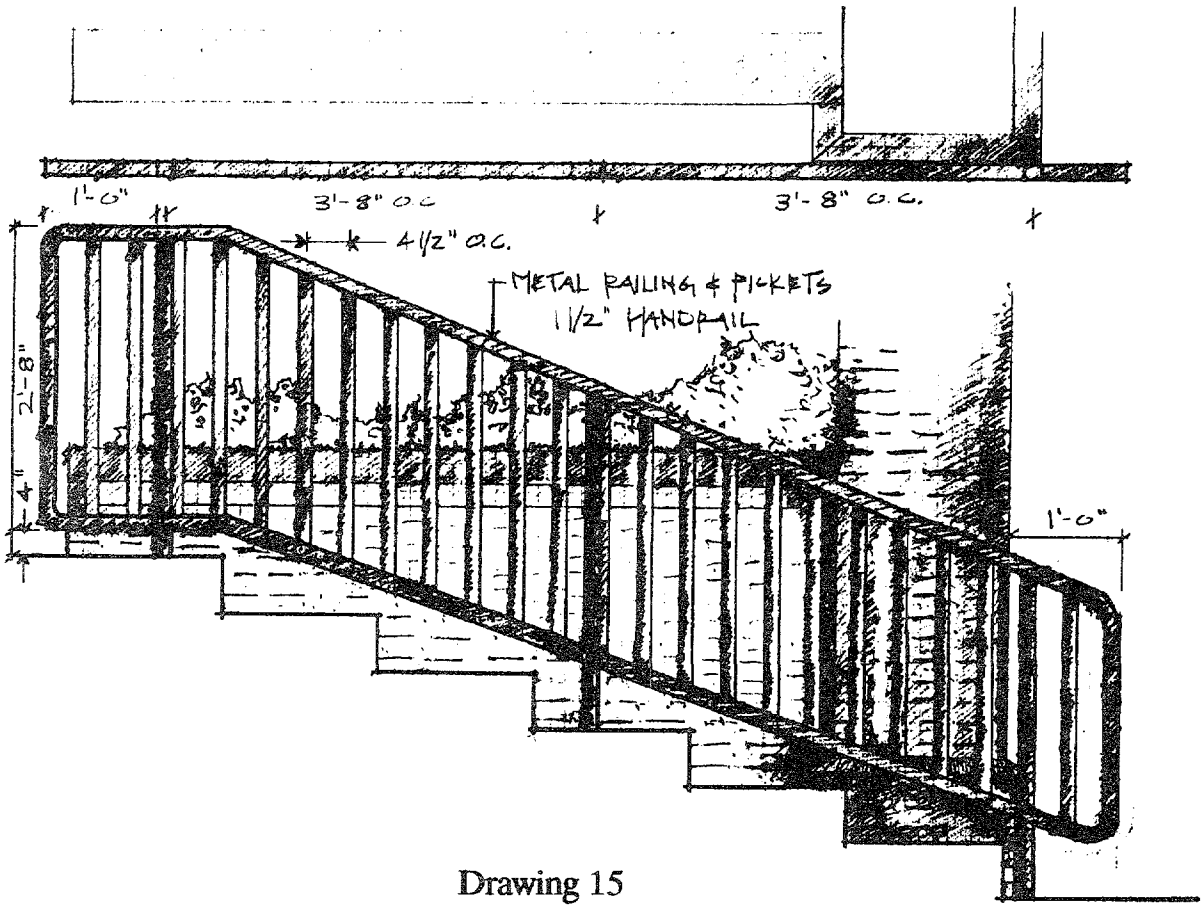
Drawing 13: Handrail Alternative A features a single pipe configuration. The handrail ends are curved for safety purposes.



Drawing 14

391/20123

Drawing 14: Handrail Alternative B features a simple double pipe design.



Drawing 15

391/20124

Drawing 15: Handrail Alternative C is same design as that used on the accessible ramps for Independence Hall, Congress Hall, and Old City Hall.

convenient accessible route linking Washington Square with Independence Square. Although the park's Accessibility Plan allows for the consideration of such a structure, the level of impact to surface and subsurface (archeological) resources required to build a new ramp would result in significant loss of historic fabric. Additional concerns of such an action include: loss of landscaping, introduction of additional maintenance elements such as snow, ice, and leaf removal; security issues created by spaces that are not easily policed; and the possibility of attracting undesirable uses such as skateboarding and rollerblading. Therefore it is the recommendation of this report to prohibit such new structures within Independence Square.

Priority 2: Lighting

This item responds to the need to repair the existing walk lights and insure that the illumination level in the square meets contemporary life/safety requirements. A second issue relates to providing high quality architectural lighting designed to enhance the night time appearance of the Independence Hall building complex. Current building facade lighting is inappropriate. The high pressure sodium vapor lights produce an overwhelmingly harsh austere quality of light casting an orange glow on the buildings. Not only does this create an uncomfortable setting for visitors but is not respectful of an edifice with such cultural and historical significance.

The following tasks are recommended:

- Undertake a detailed lighting study during the next phase of design to determine the appropriate level of illumination for the south square. This level should achieve a balance between night time pedestrian safety and square ambiance. Implementation of the study should strive to retain the historic walkway lights. These existing "Franklin" reproduction light fixtures should be restored and retrofitted with reflectors allowing for better distribution of light on the ground plane (if recommended by the lighting study). Respecting the historic resource, every effort should be made to avoid adding more walkway lights to the square.(**d**)
- Replace the existing orange colored high pressure sodium vapor light bulbs (in the Franklin type light fixtures) with ones that produce a color that is more sensitive to the resource and visitors. All lantern luminaire glass panes should be cleaned and broken ones replaced. In addition, the fixtures and metal poles will be repainted. Replace all underground electrical conductors and place in conduit.(**m**)
- Re-design the exterior lighting of the Independence Hall building complex to complement and enhance the appearance of the north and south facades.(**d**)

Priority 3: Hazard Vegetation

Although there are a number of concerns relating to vegetation management and maintenance, the most urgent item concerns providing a safe environment for the visitor.

The following task is recommended:

- Prune trees to minimize identified safety hazards and to correct structural deficiencies. Provide or replace cabling as needed.(**m**)

Priority 4: Irrigation

The existing irrigation system provides an adequate amount of water for sustaining lawn areas during periods of drought. However, the old piping is brittle requiring considerable care and attention. A new system is warranted to maintain healthy plant material and minimize the time demand on park maintenance personnel.

The following tasks are recommended:

- Abandon or remove, as appropriate, the existing outdated irrigation system. Install a new system providing water for lawn areas and plant beds. Consideration will be given to using drip irrigation as appropriate. Placement of new sprinkler heads and ground disturbance will be done with sensitivity to tree and shrub root zones as well as known archeological resources. Given the difficulty of maintaining the plant materials during repair operations, it is recommended that some type of trenchless technology be employed where possible. The new water supply connections, piping, valving, filtering, back flow prevention and other system components should be done to code. Provide controller compatible with park maintenance needs.(**m**)

Priority 5: Brick Walls and Stairs

As described in the condition assessment, the brick walls and associated structures are in good condition with a couple of notable exceptions. Almost every one of the brick piers have shifted and are out of square. According to the structural engineering evaluation, this is due to inadequate footing design and the poor quality of the support soils. The wall capstones have also shifted from their original positions, primarily as a result of water infiltration and freeze-thaw cycles.

The following tasks are recommended:

- Inventory, number, remove and stockpile existing capstones. Cracked capstones should be repaired using an epoxy adhesive. Severely damaged stones should be replaced in-kind. Stainless steel dowels or another high quality fastener should be used providing a better connection between the brick walls and capstones. Grout any walls in which voids are evident. Re-install capstones using an epoxy mortar.(**m**)
- Re-align all brick piers that have shifted. An effective system for correcting this problem is one in which metal rods are driven to bedrock. A mechanical plate is then installed beneath the pier, after which, the foundation is jacked restoring the pier to its proper alignment.(**m**)
- Repoint all cracked brick walls and piers.(**m**)
- Repair or replace severely damaged finials with new reproductions.(**m**)
- Repair stairway base problems such as settlement, voids, etc.(**m**)
- Repair cracked stair treads using a color matched epoxy adhesive. Level stone stair treads and return joints to original tolerances.(**m**)

- Clean out all weep holes.(**m**)

Priority 6: Vegetation

Throughout its history the trees, turf and shrubs have played a major role in defining the character of Independence Square. However as summarized in Appendix B, this vegetation is showing the effects of age, over use, and the impacts of being in the urban setting. The trees that once lined the north side of Chestnut Street have all but disappeared, the result of insufficient root growth. The expansive tree canopy of the south square has survived remarkably well but many of the mature trees are nearing the ends of their lifespan. Plans must be made for their replacement so that this character defining feature will be retained. The lawn areas south of Independence Hall have experienced extensive soil compaction. The presence of large mature shade trees creates a difficult growing environment for grass, not only due to the dense shade but also from competition for water caused by the trees' extensive root network.

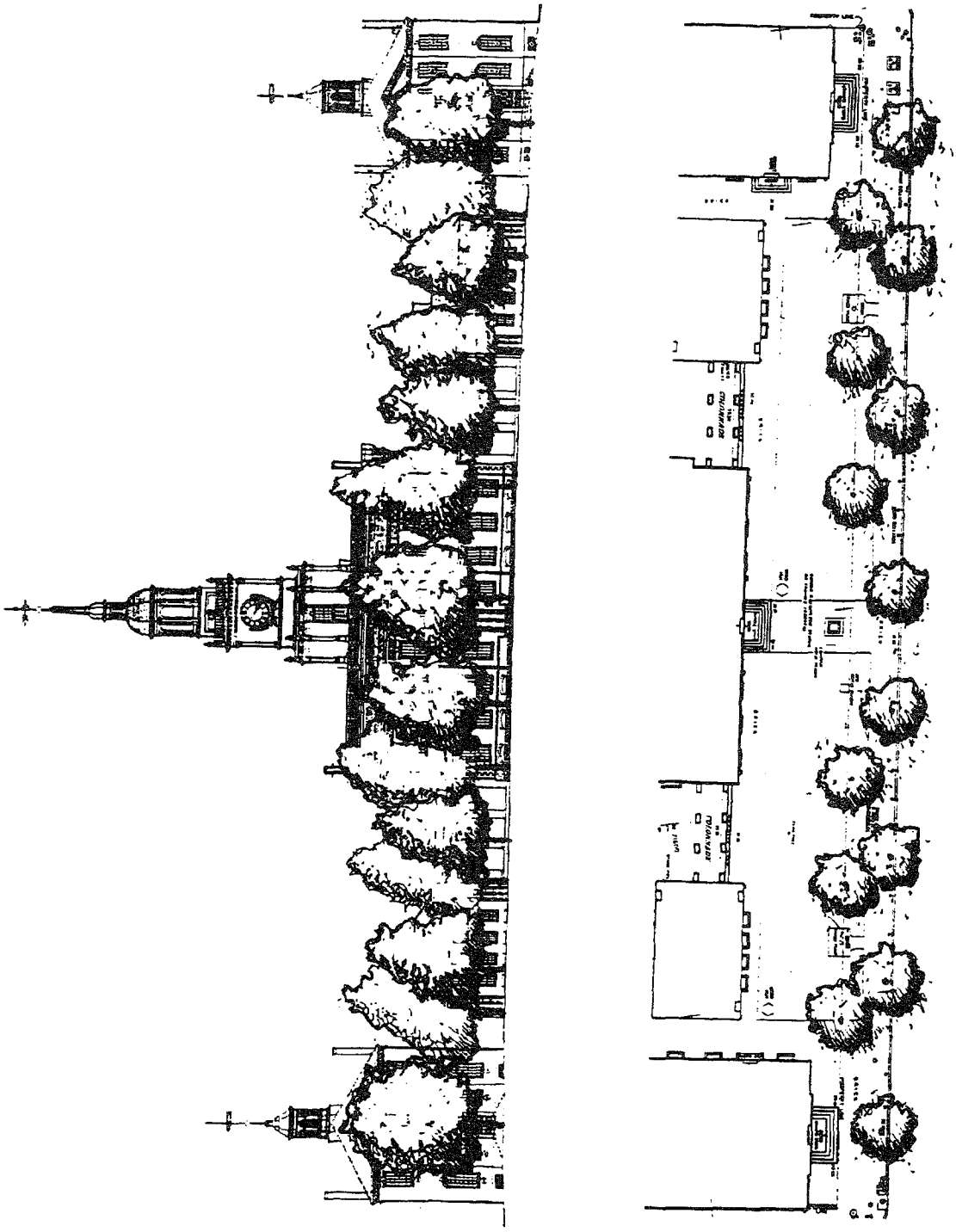
The following tasks are recommended:

- Rehabilitate the 1974 landscape reconstruction of the north square by re-instating all or a portion of the double row of trees that once lined Chestnut Street in front of Independence Hall. It is likely, particularly in the recent past, that the trees along Chestnut Street were planted using techniques common to urban areas, i.e., they were provided with small tree pits accommodating only minimal root growth volume. To ensure street tree survival, any new planting needs to consider the latest findings regarding proper urban tree planting techniques. These methods call for creating generously sized tree pits connected by 3-foot-wide trenches allowing ample room for the extensive root growth needed for plant health. Although this approach is invasive and will likely impact archeological resources, it will help ensure survival of the trees for an extended period of time. The use of smaller standard size tree pits will have less impact on subsurface resources, but will require frequent replacement of the trees because without appropriate soil volume enabling healthy root growth the trees will not survive more that a few years.(**d**)

Alternative "A" re-establishes the double row allee of trees that existed during the early 19th century (drawing 16). Coupled with the existing reconstructed landscape of the north square, this scheme will most accurately re-create the ambiance and appearance of Chestnut Street during that time period. However, it is also likely to have the greatest impact on the subsurface archeological resources.

Alternative "B" re-establishes the double row allee of trees, but in deference to views of the building facades, it eliminates the trees in front of Independence Hall (drawing 17). This maintains the current view of the structure from Independence Mall and the Liberty Bell Pavilion.

Alternative "C" represents the least intervention proposing to re-instate only small portions of the original double row allee of trees. This scheme will give some sense of tree canopy along Chestnut Street but will maintain views of all the building facades (drawing 18). This alternative will likely have the least impact on the archeological resources.

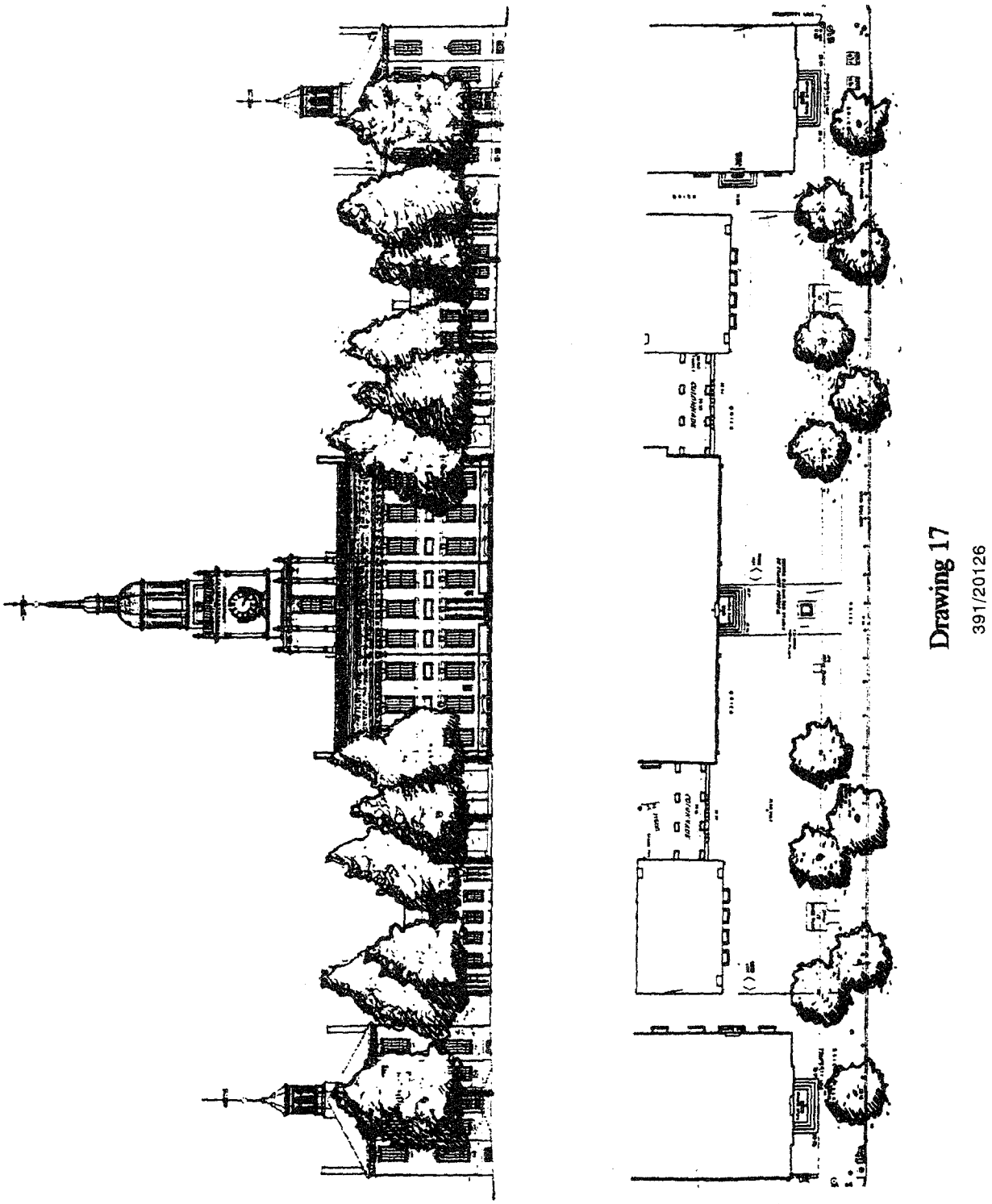


Drawing 16

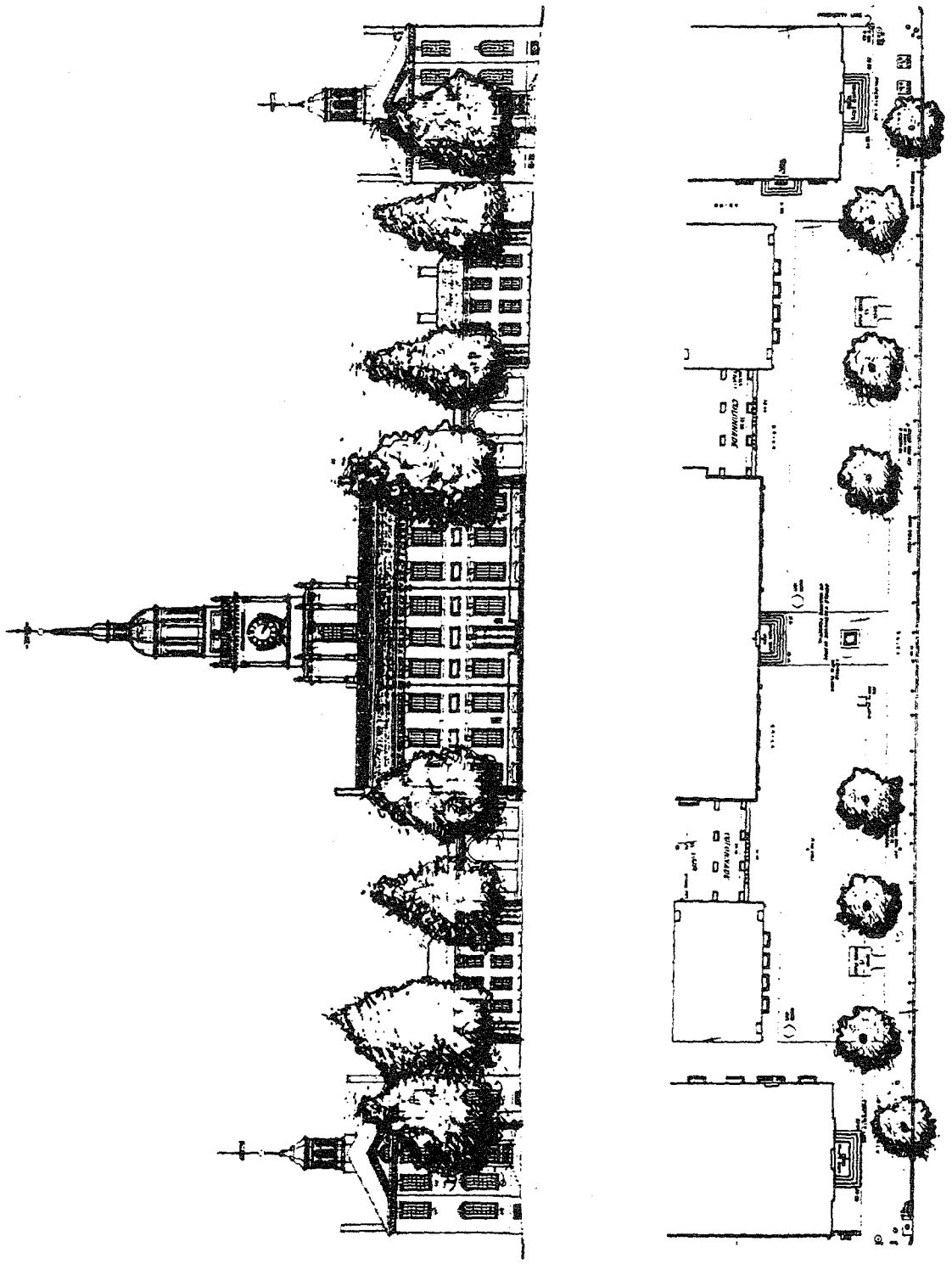
391/20125

Drawing 16: Chestnut Street Tree Planting Alternative A re-establishes the historic double row allee of trees along Chestnut Street. This feature, first documented in 1821, is compatible with the reconstructed "Capitol City."

MICROF



Drawing 17: Chestnut Street Tree Planting Alternative B re-establishes a portion of the historic double row allee of trees along Chestnut Street. To preserve views from Independence Mall and the Liberty Bell, no trees are proposed for the area directly north of Independence Hall.



Drawing 18: Chestnut Street Tree Planting Alternative C proposes to re-establish only a limited number of trees along Chestnut Street, enabling the views of the north building facades to remain unobstructed while providing some continuity with streetscaping on the surrounding blocks.

Representing a good compromise in treatment, Alternative B is recommended as part of the rehabilitation of Independence Square. Recreating the double row allee, respects the historical patterns. At the same time current viewsheds are maintained recognizing the evolution of the square's context with the advent of Independence National Historical Park and Independence Mall.

- Evaluate soil conditions, including compaction, and mitigate problems through arboricultural techniques appropriate to the conditions.(**m**)
- Re-sod all lawn areas with turf cultivars appropriate to growing conditions.(**m**)
- Develop a long term vegetation management plan that will retain the historic tree canopy (either as part of a long-term plant material maintenance plan or during the preliminary design phase of this project).(**d**)
- Renovate or re-design the existing shrub beds. During the last thirty years shrubs have been planted adjacent to square's stairway entrances softening the appearance of these transition zones. These plants have either become over grown or have long since exceeded their life expectancy. Therefore it is recommended that these plant beds be re-designed reflecting contemporary use and maintenance requirements. Annuals and perennials could be included within the shrub beds.(**d**)

Priority 7: Exhibits and Signage

Much of the information provided to visitors through exhibits and signage deals with the history of Independence Hall and its role in our nation's history. However, little is presented to inform visitors of the significance of Independence Square.

The following tasks are recommended:

- Provide wayside exhibits, consistent with existing signage, to interpret Independence Square and its history. These exhibits should incorporate the use of Braille to assist the blind, as well as the use of audio programs.(**d**)
- Although not part of the schematic design per se, it is suggested that the interpretive program for Independence Hall be altered to include information regarding the history and significance of Independence Square. A separate ranger led interpretive walk through the square would provide an in depth experience for visitors.(**d**)
- Install ADA compatible signs identifying accessible routes to the south square, to building entrances, and from Independence Square to Washington Square.(**d**)

Priority 8: Site Furnishings

This priority addresses treatment with regard to all site furnishings with the exception of lighting and signage that have been discussed already. As described in the condition assessments, most of the site furnishings are generally in good condition with a few minor exceptions. The tasks listed below discuss the required repair and replacement of missing features.

A project separate from this CLR is addressing the need for protecting the Independence Hall building complex from car bombing and other extreme acts of terrorism. It is planned that

structural bollards will be installed around much of the periphery of the square. The bollard design is similar to the wood bollards found along Chestnut and Walnut Streets. The existing structures are six inches in diameter. The new protective bollards will be somewhat larger to develop the strength needed to counter direct vehicular impacts. Each bollard will be fabricated from a 6-5/8 inch diameter steel pipe filled with concrete and fitted with a domed top. They will be painted a dark color to mimic the existing bollards. At certain locations where access to the square is required, the bollards will be designed to be removable or retractable. It is also planned that defensive bollards will be installed at the top of all stairway entrances to the south square. These bollards will be similar to the ones lining the lawn areas immediately south of Independence Hall. Each bollard will be fabricated from a six-inch diameter black painted pipe, filled with concrete and capped with a metal ball.

The following tasks are recommended:

- Repair or replace broken and missing metal bollards and chains throughout the Square.(**m**)
- Repair broken back on wooden bench in the south square. As described in Chapter 3: Landscape Features, although the benches are not historic their design and placement is compatible with the overall character of the square.(**m**)
- Repair all broken trash receptacles preventing squirrels, rats, and yellow jackets from getting inside. As discussed in Chapter 3: Landscape Features, the existing trash receptacles do not contribute to the square's significance. However trash receptacles have been used on the square for most of the twentieth century and providing aesthetically appropriate well functioning trash receptacles is a necessity in public open spaces. With the planned improvements for Independence Mall there is an opportunity to develop a palette of street furnishings (including trash receptacles) for the entire park that is compatible with the historic period and meets contemporary maintenance criteria.(**m**)
- Replace missing wood stave barrels along side the replica water pumps, as per the 1974 reconstruction of the north square.(**m**)
- Develop a park policy for dealing with proposals for new plaques and monuments within Independence Square.(**d**)
- Install anti-terrorism bollards along the perimeter of the north square and at the top of all stairways in the south square.(**d**)

CONCLUSION

This schematic design provides the basis for the detailed preliminary design work that is to follow. Many questions have been answered but more work needs to be done particularly in the areas of planting design, long-term vegetation management and lighting design. It is hopeful that these issues will be evaluated and construction planning for the square may proceed.

This cultural landscape report and schematic design have highlighted the significance and deficiencies of Independence Square. With visitation on the rise, as well as the poor condition of the site utility systems and other landscape features, it is fair to state that Independence Square is at a turning point. Without beginning the rehabilitation effort shortly, the speed at which deterioration of the landscape is occurring will escalate. Not only will this result in the

loss of historic fabric, but it will dramatically increase the life safety concerns for visitors, not to mention the liability exposure potentially facing the National Park Service.

In summary, the schematic design represents the culmination of this cultural landscape report. Thousands of person hours have gone into researching, studying, evaluating and documenting the history and evolution of this place called Independence Square. Its purpose is not only to inform the ongoing maintenance and impending rehabilitation, but to provide a rigorous documentation of the square and its features during the latter apart of the twentieth century. As history as shown, Independence Square receives a major treatment approximately once each century. Now, in 1997, as we approach the end of the twentieth century, it is with pride that the National Park Service has undertaken this CLR in preparation for treatment. It has also been done with the knowledge that the next team to begin such an undertaking will likely have this report to assist them in shaping their decisions.

APPENDIXES

APPENDIX A: HISTORIC CONTEXTS

AREA: EXPRESSING CULTURAL VALUES

Centennial of American Independence, 1876

A renewed interest in the Revolution and the Declaration of Independence grew considerably as their hundredth anniversary approached. In 1870, the Philadelphia City Councils voted to approve the Franklin Institute's proposal to hold a Centennial Exposition in Fairmount Park.[1] Although much work and money was devoted to preparing the Fairmount Park site for the international event, Frank Etting emerged as the dedicated advocate for the restoration of Independence Hall and for a new landscape plan for the Square.[2] Etting's work as Chairman of the Committee on the Restoration of Independence Hall, resulted in at least a partial restoration of the exterior and the first floor interior as well as providing the essential advocacy required to implement the new landscape plan for the Square.

The importance of the Centennial celebration in Philadelphia cannot be understated. Philadelphia clearly set a standard of interest in the Revolution, the Declaration, and other events related to the founding of the nation as well as demonstrating that places associated with these events were worthy of preservation. This is summarized by Hosmer:

In the decade that followed the Civil War, a new influence spread throughout the field of preservation, generated after the Centennial celebration in Philadelphia. While the Centennial probably aroused more interest in the American revolution than in old buildings as such, the latter could not fail to attract some attention. Comments made after the Centennial year (1876) by people who had traveled to Philadelphia show that many discovered that they had a "past worthy of study." Some observers were fascinated by the Revolution relics that they saw and went home with a deeper interest in the war itself; others said that they gained a desire to learn more of the heroic deeds of the Continental Army and would take steps "to preserve such deeds from oblivion."[3]

The Centennial Exposition in Philadelphia prompted a rediscovery of the nation's colonial past, a trend that gained increasingly popular favor in periodicals and books.[4] In his essay, "What do we preserve and why?" W. Brown Morton reports that in the aftermath of the Philadelphia Centennial, the colonial style was firmly established in the minds of the general public and remains to this day, America's favorite style.[5]

The colonial "renaissance" and interest in events associated with the founding of the nation prompted a new wave of invigorated energies to preserve or commemorate sites and structures associated with these events.[6] Other "Centennials" soon followed after the Philadelphia fair. A group of people in Valley Forge organized "The Centennial Association of Valley Forge" in order to commemorate the hundredth anniversary of the departure of Washington's army from that encampment. In February 1878, the association reported that it would be "in keeping with the spirit of Philadelphia to purchase the old Washington headquarters building at Valley Forge."[7] At the same time, renewed interest in the Ford Mansion, another of Washington's headquarters in Morristown, New Jersey prompted the men who had successfully purchased the house in 1873 to form the Washington Association. Their hard work to promote the importance of the property and work collaboratively with government agencies resulted, by the 1890's, in a tremendous attraction to visitors.

In addition to the commemorative aspects of the Centennial celebration, the world's fair at Fairmount Park featured exhibits of the latest industrial design, technologies and innovations, including displays by over fifty countries. In preparation for the event, improvements were made throughout the city including public transportation so that the city could report this to be the "first world's fair providing satisfactory transportation for masses of visitors."[8] The combined physical improvements, including

improvements to Independence Hall and Square, elevated visitor's impressions of Philadelphia as a city "as cosmopolitan as Paris and as lively as Chicago."[9]

Finally, the Centennial Exposition in Philadelphia was so popular, that a movement arose to perpetuate it.[10] As a result, Congress authorized construction of the Arts and Industries building of the Smithsonian, which opened in 1881 specifically to house a portion of the Philadelphia exhibit materials. A century later, in anticipation of the Bicentennial, the exhibit was completely rehabilitated, with all objects cleaned and repaired, and resulting in a "dazzlingly successful re-creation of a small portion of that great Victorian fair."[11]

Property Types

Property types associated with the Centennial celebration include fairgrounds; Washington's headquarters; Revolutionary War battlefields and fortifications; historic buildings associated with the Revolution and the Declaration; public squares and exhibit halls.

Independence Square and the Centennial

The first Centennial landscape plan for the Square was prepared by Joseph Leads, consisting primarily of a "monument of memorials" that would permanently establish the site as a shrine to the founding of the nation.[12] Leads' proposal would also transform the buildings on the Square into a major museum of the American revolution.[13] Other proposals, including one by George F. Gordon for 56 bronze statues commemorating the signers of the Declaration, were prepared. Instead, the City adopted a plan prepared by William F. Dixey, the Commissioner of Markets and City Property.[14] Dixey's plan was described in detail in the Philadelphia *Inquirer* including features such as low walls, steps, flagstone paths, gas lights, grass plots, drainage systems, and limited tree removal.[15] This plan was viewed favorably and ultimately adopted because it accomplished the current practical needs such as drainage and public access in design of "utility, simplicity, and beauty."[16] Although no specific plans have been found for Dixey's design, it is well illustrated in an 1878 view looking north from Walnut Street. The most distinctive feature of this design is the new diagonal and radial pattern of paths that modified an informal set of walks that had resulted from undirected use. The Centennial plan also permanently removed the vertical physical barriers (wall and fences) between the Square and Walnut, Fifth, and Sixth Streets.

Physical Features Associated with the Centennial

By and large, the square retains many of the physical features associated with the Centennial plan. Although they have been altered, the square still retains the radial layout, flagstone pavement and curved granite stairs of the pedestrian circulation system implemented during this period. Similarly, the spatial relationships between buildings and landscape plane have also remained. The grove of trees south of Independence Hall, which forms an essential element of the Centennial landscape, retains integrity as a complete feature, even though individual trees may have been replaced over time.

Summary (Level and Period of Significance)

The Centennial of the American Revolution was a nationally significant event. While most of the activities of the celebration were focused at Fairmount Park, the commemorative design installed at Independence Square is also significant, potentially at a state or national level, for its association with the Centennial (criterion A), as well as for the design which illustrates a topology of urban square design (criterion C). The period of significance for this context is 1875-76.

Historic Preservation - Professionalism in the Early Twentieth Century, 1913-1917

Throughout the nineteenth and twentieth centuries, the historic preservation movement has been closely tied to the cultural politics of the day.[17] For this reason, at its heart, historic preservation in the U.S. has been a part of movements of reform, progressivism, and public education. In the late nineteenth century, for example, preservationists "appealed for a new sense of national dedication" hoping that an appreciation of "the sacrifices of our Founding Fathers" would help prevent disunion.[18] As the twentieth century began, historic preservation responded directly to the "revival styles" popular in American design with a new emphasis on traditional colonial aesthetics and taste.

Both private and governmental organizations have shaped and contributed to preservation movements in the U.S., beginning with the Mount Vernon Ladies Association. The contemporary practice of historic preservation in the National Park Service is derived largely from several landmark pieces of Federal legislation such as the 1906 Antiquities Act, the Historic Buildings and Sites Act of 1935, and the 1966 Historic Preservation Act. Today, many programs in federal, state and local governments as well as private organizations, institutions and professional societies, strive to identify, plan for and treat historic buildings, sites, objects and districts that illustrate important aspects of our history. The National Register of Historic Places currently lists tens of thousands of properties that have been identified and documented as important examples of American history.

Preservation is a documented theme in the history of Independence Square as early as 1812-13 when public concern first swelled over proposals to alter the square and sell the then obsolete and vacant State House to benefit the construction of a new capital in Harrisburg.[19] For many reasons, it is not possible to completely consider Independence Square alone in this context, as it also functions as the setting for Independence Hall, a prime example of architectural preservation. Since the role of this essay is to discuss aspects of history that relate to the landscape, this section will focus more narrowly on one event in the historic preservation movement that most appropriately applies to the landscape of Independence Square: professionalism in the early twentieth century. For this reason, the Strickland steeple restoration, a monumental and important event, is not discussed in detail, even though it is certainly illustrative of the importance of Independence Hall in the history of architectural preservation.

It may be possible, at a later date, to more fully develop this context to illustrate the broader concept that Independence Hall and Square both influenced and reflect a larger dimension of historic preservation practice.

The AIA and the Professionalization of Historic Preservation

As a professional organization, the American Institute of Architects first entered the preservation field weakly in 1890 when a Committee of Conservators of Public Architecture of the Country was proposed at its annual convention.[20] Unfortunately, the [first] committee was dissolved after seven years. In 1898, the Institute rented the Octagon House in Washington, DC for a new headquarters, a building that Charles Follen McKim had worked to convince the membership of its architectural excellence.[21] This new headquarters, located in the capitol, provided a base for advocacy and lobbying activities, including the Institute's interests in historic buildings. However, it wasn't until 1907, that the debt on the Octagon house was finally secured and the AIA could assume full control.

The acquisition of an historic building for its headquarters prompted the AIA to think introspectively about its preservation responsibility. At the 1914 convention, the organization agreed to appropriate funds for its continued repair by arguing that:

The Institute is accustomed to lend its influence and support to all movements looking to the preservation of historic monuments, and several of the Chapters have been active in bringing about

the restoration of historic buildings in their localities. But the Institute, which owns a building, notable both architecturally and historically, has taken no steps to preserve it.[22]

The Octagon remains as the only historic building successfully preserved through **acquisition** by the AIA In large part, the contributions of the organization can be attributed to public advocacy as well as research and design services which laid the groundwork for a new wave of professionalism in historic preservation practice.

The Philadelphia Chapter first established their own Committee on Preservation of Historic Monuments in 1898. In its first two decades, the committee worked tirelessly to achieve an accurate restoration of Congress Hall by donating their services in exchange for implementation by the city. Shortly after the restored Congress Hall was reopened in 1913, the chairman of the National Committee on Preservation of Natural Beauties and Historic Monuments reported that the Philadelphia Chapter was "becoming the recognized authority on such matters" as restoration.[23]

In the early twentieth century, the AIA, with the Philadelphia Chapter leading the movement, clearly articulated the need for a national preservation program. The AIA's interests in the 1920's appear to be centered on three themes: a general, historical interest in colonial buildings; the expressed need for a national inventory of historic buildings; and professional concerns regarding inaccurate restorations. Horace Wells Sellers, Chair of the Philadelphia Committee published several appeals in the Journal of the AIA in support of "a greater respect for the surviving mementos of craftsmen who toiled centuries ago" and condemning restorations done by "inexperienced or unsympathetic hands."[24] Hosmer further describes Sellers preservation interest:

In 1921, Horace Wells Sellers, Chairman of the AIA Preservation Committee, spoke to the institute about the study of colonial buildings. "The growing interest in the subject of as evidenced by the publication of measured drawings in architectural journals is suggestive of agencies which might join in the more comprehensive and organized movement which your committee has under consideration." He was referring again to the much-heralded catalog of old buildings.[25]

Property Types

Due the AIA's very specific interest, the primary property types associated with this theme are significant historic buildings and their settings.

The AIA and Independence Square

In July 1895, the Pennsylvania legislature repealed an 1870 act that had required the demolition of all structures except Independence Hall once a new City Hall was constructed, and in December, the City Councils approved an ordinance to restore Independence Square to its appearance during the Revolution.[26] This ultimately resulted in the demolition of the Sixth Street Court House as well as a considerable effort to restore Independence Hall by the Philadelphia Chapter of the Daughters of the American Revolution (D.A.R.) under the direction of Architect T. Mellon Rogers.

Unfortunately, Rogers work received much criticism from the City and Rogers' architectural peers, due to what appears to be a genuine lack of historical accuracy combined with a lack of confidence in Rogers professional abilities since he was not a member of the AIA This prompted the Philadelphia Chapter to form its own Committee on Preservation of Historic Monuments in 1898. After the work on Independence Hall had ended in 1898, the committee turned to Congress Hall and began a thorough study of the building's history as a prelude to restoration.

The AIA also directed their energies toward an "accurate and professional" restoration of Independence Square.[27] During the first decade of the twentieth century, the Square experienced a sustained period of limited routine maintenance, largely related to the care of the aging shade trees and turf, which suffered from constant public use. In 1910, concern over the City's replacement design for existing lamps on the Square appears to have motivated the AIA to resume their aesthetic and historical interest in the Square. An editorial published the year before in support of the AIA's plans had argued that

> We are, as it were, merely stewards of the nation at large in the control of a shrine of priceless character and worth, and there can be no qualification as to our supreme duties in the premises.[28]

While the AIA's original interest in the Square appears to be centered on a compatible lamp design, it quickly grew to include "a complete scheme for the improvement of the square" that would make it "an appropriate setting for the buildings."[29] In July of 1913, the AIA and the City signed a contract for the preparation of plans and specifications for the Square. Preliminary drawings, completed in October 1913 were approved by the Director of Public Works.[30]

Interestingly, the AIA chose a somewhat practical rather than ideological design solution, reporting that "In the general layout of the square no attempt will be made to restore it to the exact conditions existing in the eighteenth century."[31] According to Horace Sellers, this solution was required "not only because full knowledge of these conditions in detail is wanting, but for the reason that modern requirements of traffic would make such a restoration inexpedient." The design included low brick wall with marble coping, modifications to existing entrances and the circular (Centennial) bluestone walk and planting circle, changes in surface material adjacent to the buildings, and new lamp posts and fixtures. The architects believed that this design would "bring the structure into closer architectural relation to the ancient structures and produce the harmonious effect now so conspicuously absent."

Although Thomas M. Kellogg is listed as Architect on specifications for the work, Horace Wells Sellers (1857-1933) was fully credited as the mastermind behind the design and its successful implementation. Sellers had a very active and public-spirited career, most importantly as an active member of the AIA He joined the AIA Committee on the Preservation of Historic Monuments in 1911, served as the secretary and chair of the Philadelphia Chapter Committee, and was secretary (1914) and president (1917) of the Philadelphia Chapter.[34] Presumably in his role as chair of the preservation committee, Sellers served as the principal contact with the City and Art Jury.

As Toogood reports ...when all the AIA restorations on Independence Square were completed in 1922, the *[Public Ledger]* singled out Sellers alone, of all the architects who volunteered countless hours to the projects, for his "patient enthusiasm and his faithful research and study" which resulted in "a gift to city that the entire Nation should recognize."

The work of the Philadelphia Chapter of the AIA, and Horace Sellers in particular, demonstrated in physical form, the Committee's objectives and recommendations regarding the preservation of important historic buildings and their settings. Like the work prepared for the Centennial, the AIA provided a national model for the treatment of historic buildings and their settings. The Philadelphia

Chapter, and Horace Sellers, in particular, served as one of the primary motivators behind the rapid development of architectural preservation practice in the early twentieth century.

Physical Features Associated with This Context

The AIA plan for Independence Square remains largely intact today. This includes a number of physical features directly associated with the AIA design such as circulation patterns, brick perimeter walls, outdoor lighting and the majority of individual trees.

Placing Independence Square in this Context

The contributions of the Philadelphia Chapter of the AIA is cited as an important milestone in the evolution of the preservation movement in Hosmer's and other published work.[35]

The AIA design for Independence Square retained many aspects of the Centennial landscape, updating it to include some new features, necessary to better accommodate contemporary use and create a compatible setting for Independence Hall. This work appears to illustrate the principles of "rehabilitation" an essential concept of the field of preservation. Even though the square is a landscape, this work must be considered within the framework of the evolving role of the AIA, who were the first professional organization to articulate principles for historic preservation practice, and whose objectives for the square related specifically to its role as the **setting** for Independence Hall. Landscape architects and the A.S.L.A. did not actively enter the field until much later. However, it may be possible to more fully evaluate the significance of Independence Square as a preserved historic landscape, when a published body of work is available.[36]

Summary (Level and Period of Significance)

The landscape associated AIA plan for Independence Square appears to be significant, potentially at a state or national level for its association with professionalism and the historic preservation movement (criterion A) as well as for its design (criterion C) which clearly illustrated the application of preservation principles. The period of significance for this aspect of the property's history is 1913-1917.

AREA: POLITICS AND GOVERNMENT

Context: Philadelphia Politics and Government, 1765-1870

From the late eighteenth century until after the Civil War, Philadelphia's population expanded from about 40,000 to more than 500,000. During this period, Independence Square provided both a ceremonial and functional setting for political protests, rallies, and other gatherings of the citizenry.[37] The square, which had been the city's major place for public protest during the Revolutionary era, witnessed the expression of local public sentiment on national issues during the early years of the republic (1790-1815). [38] In the mid years of the nineteenth century, it offered the city's established political leadership a place to hold large public meetings. Independence Hall was Philadelphia's central voting place until 1850 and crowds, sometimes raucous, regularly gathered on election day in the street in front of the building.[39] As centrally located public open space, the square, used as a parade ground in the Revolution, served the city militarily again in subsequent wars.[40] In the War of 1812, the square was the site of military training and volunteer enlistment and, in the Civil War, the site of perhaps Philadelphia's most visible recruiting station.

While the frequency of use needs to be further documented,[41] those gatherings known to have occurred clearly indicate the square's continued significance as the city's symbolic center from the beginning of the Revolutionary era until after the Civil War.[42]

Property Types

Historic properties associated with city politics and government include government buildings, public meeting halls, and public squares.

Political Expression at Independence Square

Before the Revolutionary War, the area behind Independence Hall, then known as the State House yard, was the site of large public rallies organized, in 1765, to protest the Stamp Act and, in 1768, the Townsend Acts. In 1773, the city held a public meeting there to reject the unloading of cargo from the tea ship "Polly."

Public protests in the square continued as independence became a reality. In April 1775, a public gathering was called following the events at Lexington and Concord; in May 1776, a crowd of four thousand protested the Pennsylvania Assembly's slow progress toward independence. And, finally, in July 1776, several thousand Philadelphians listened to the official reading of the Declaration of Independence from "that awful stage in the State-House Yard."[43]

Beginning in the 1790s, State House yard witnessed political gatherings occasioned not only by such well-known controversial issues as the arrival of the new French Minister, Citizen Genet (1792), the passage of Jay's Treaty (1795), and the near-war with France (1798), but such peculiarly local events as an act to outlaw wooden structures in the city (1795).[44]

In July 1807, a large crowd gathered in response to the British attack on the American frigate, Chesapeake, to hear resolutions advocating war with Great Britain. In early 1809, Jefferson's embargo, which had caused considerable hardship, inspired uproarious political meetings first to support and then oppose the embargo.[45] In August 1814, with the British having burned the White House, Philadelphians met in the square to appoint the Committee of Defense that oversaw military preparations for the defense of the city.[46] Independence Square also provided the setting for military training and witnessed public meetings to recruit volunteers.[47] Finally, the end of war in 1815 prompted grand celebrations in the square.[48]

After the war, the square became the focus of efforts by the political and civic leadership to appeal to the broad mass of citizens as civic and party efforts dictated.[49] Among the noted events were the following:

September 1824, a meeting in anticipation of Lafayette's visit;[50]

March 1834, a rally by the nascent Whigs to protest Jackson's removal of federal deposits from the Bank of the United States;[51]

May 1844, a meeting of the citizenry to endorse the use of deadly force to suppress the nativist-Irish Kensington riots — the bloodiest episode of mob violence in Philadelphia's antebellum history.[52]

The Civil War witnessed renewed activity. In December 1860, the City Councils called a public meeting, attended by some 50,000 citizens, to address heightened fears about the South's secession. Several speakers at this officially sponsored public meeting, accused the North of forcing the country's division.[53] The following year, a large crowd gathered to hear President-elect Lincoln proclaim that there was "something in that Declaration giving liberty, not alone to the people of this country, but hope to the world for all future time."[54]

Independence Square served as the center of recruitment activities, beginning in 1862 and continuing throughout the war.[55] At the same time, the city's Democratic political leaders used the square as a

venue for promoting anti-abolitionist and anti-war campaigns.[56] These Democratic events may have caused the councils to propose, in 1862, that political gatherings be banned from the square.[57] After Lincoln's assassination, the funeral process proceeded up the main walk through the square from Walnut Street to Independence Hall where the body lay on view.[58]

In 1868 the Councils reaffirmed their commitment for the use of the square by "any responsible party." In 1870, a gathering celebrated the Fifteenth Amendment to the Constitution that granted all male citizens the right to vote, regardless of race.[59]

The decision, in 1870, to move city and council offices to Penn Square led, in part, to the decline of the square as a central political gathering place and brought about the end of an era. In 1895, government departed the square altogether, severing the symbolic and political heart of the city.

Physical Features Associated with This Context

The principal features associated with the use of Independence Square as a meeting space include a relatively flat ground surface unencumbered by buildings or other large elements that might prevent a large gathering. Often, stages, mostly temporary in nature, were constructed south, and, probably to a lesser degree, north of Independence Hall to create a platform for speeches. Finally, the relationship with Independence Hall is critical to this context as the square provided a setting for the building and the building, in turn, provided an important backdrop for political and civic gatherings. While the perimeter wall was replaced with a new design by the AIA in 1916-17, its design intent and functional relationship to the square and the surrounding streets remains the same.

Summary

In the years surrounding the Revolution, meetings with a public or political purpose were frequent occurrences at Independence Square. These events, although local in character, relate to the nationally significant historic context "The Founding and Growth of the United States" (1774-1800), identified in existing National Register documentation for the park. However, the theme of this context relates to the political influence and thought of national leaders rather than to the role of the crowd in shaping Philadelphia's political history. For this reason, the period for the context "Philadelphia Politics and Government" begins in 1765, when Philadelphians turned out to oppose the Stamp Act, rather than in 1774, when the Continental Congress first met.

In the nineteenth century, national events and issues, although less momentous, often determined the nature of organized political use of the square. Such use continued until 1870, when many city and county offices moved to Penn Square. The period of significance for this context is thus 1765 to 1870.

Endnotes

1. Anna Coxe Toogood, "Cultural Landscape Report for Independence Square: Historical Narrative." Philadelphia: Independence National Historical Park. Draft, April 1996. p. 241.
2. *Ibid.*
3. Hosmer, *Presence of the Past*, p. 81.
4. Morton, W. Brown. III "What do we Preserve and Why?" In *The American Mosaic.* p. 154.
5. Morton, p. 154.

6. This wave of activity is the subject of a chapter "Restoring Memorials of the Revolution" in Hosmer's *The Presence of the Past*.
7. Hosmer, p. 82-3.
8. See Dorothy G. Beers "The Centennial City, 1865-1876" in *Philadelphia, A 300-Year History*. New York: W.W. Norton & Company. p. 467-8.
9. The *Chicago Tribune*, May 1, 1876 as cited by Beers.
10. Fitch, *Historic Preservation, Curatorial Management of the Built World*. p. 193-4.
11. Fitch, p. 193-4, 203-4.
12. Toogood, p. 242.
13. Toogood, 219.
14. Toogood, 220.
15. Philadelphia *Inquirer*, July 22, 1875, as cited in Toogood, 254-5.
16. *Ibid.*, 255.
17. Lindgren, James M., *Preserving the Old Dominion: Historic Preservation and Virginia Traditionalism*, p. 2.
18. Hosmer, *Presence of the Past*, p. 299.
19. Toogood, p. 178-9, Hosmer.
20. Hosmer, 199.
21. Hosmer, 200-201.
22. Hosmer, 201.
23. Hosmer, 204.
24. Hosmer, 276.
25. Hosmer, 204.
26. Toogood, 268.
27. Toogood, 293.
28. Toogood, 302.
29. Toogood, 303.
30. Toogood, 304.
31. Toogood, 308.
32. *Ibid.*
33. *Ibid.* For a more detailed discussion of the design plans, please see the context "Colonial Revival."
34. Toogood, 307.
35. See Hosmer, Fitch.

36. A more thorough evaluation of the Independence Square and Independence Hall might be accomplished in a special history study or historic resource study, that examines a much broader context and time period related to the historic preservation movement. It is likely that they are significant for a much broader period.

37. This analysis focuses on the historic use of the yard, although outdoor political activities occurring on the street side of the square north of Independence Hall are also noted. The uses of the Hall itself are not discussed.

38. The Revolutionary era meetings, of course, are well documented but are not referenced in National Register documentation.

39. On frequent election violence, see John F. Watson and Willis P. Hazard, *Annals of Philadelphia, and Pennsylvania in the Olden Time; Being a Collection of Memoirs, Anecdotes, and Incidents of the City and Its Inhabitants* (3 vols.; Philadelphia: J. M. Stoddart & Co., 1877-79), 3:216.

40. Anna Coxe Toogood, "Cultural Landscape Report: Independence Square (Draft)," (Philadelphia: National Park Service, April 1996), 34-35, 165-169, 177-78, 201-207, 217-18. In 1841, it was described as "entirely in the center of the bustle of the town," and it remained centrally located within the downtown until 1870 (James Silk Buckingham, *America Historical Statistic and Descriptive*, (London: Fisher, Son, [1841]), 2:223, quoted in Toogood, 201. See also William W. Cutler and Howard Gillette, eds., *The Divided Metropolis: Social and Spatial Dimension of Philadelphia, 1800-1975*, Contributions in American History, no. 85 (Westport, Ct.: Greenwood Press, 1980), 42.

41. While nineteenth century chroniclers noted the square's use in that century for public meetings, the record of public meetings is relatively sparse. See Watson and Hazard, 3:216; and J. Thomas Scharf and Thompson Westcott, *History of Philadelphia, 1609-1884* (Philadelphia: L.H. Everts, 1884), 3:1796. Toogood, 227-28, citing a *Public Ledger* description in 1852, notes that "the indefatigable caterer for public meetings in Independence Square," built a new gas-lit platform "in the same position," as earlier ones.

42. The analysis presented here follows in approach Susan G. Davis's argument in her pioneering work on historical street behavior as political communication. In her *Parades and Power: Street Theatre in Nineteenth-Century Philadelphia* (Philadelphia: Temple University Press, 198), 31, Davis states that "Philadelphians treated State House Square as the city's symbolic heart and most sacred site. . . . Before the Civil War, the Democratic Party favored State House Square as a ceremonial spot and the city corporation used it as a reception hall for dignitaries and honored patriots. Philadelphians voted there and gathered there in civil emergencies; during strikes workingmen and unionists used Independence Hall's steps as a stage from which to read declarations of independence from their masters. The Square served as the starting and ending point for many of the city's parades."

43. Toogood, 35-41, 45-52, 55. Toogood concludes that "undoubtedly scores of public meetings occurred during the Revolutionary era" in the square.

44. *Ibid.*, 144-148.

45. Harold Donaldson Eberlein and Cortlandt Van Dyke Hubbard, *Diary of Independence Hall* (Philadelphia: J. B. Lippincott Company, 1948), 348-50.

46. *Ibid.*, 351-353.

47. Scharf and Wescott, 3:1796.

48. Toogood, 169-70.

49. Scharf and Wescott, 3:1796, state that all political parties — including Democrats, Whigs, Native Americans, Republicans — used the square for political gatherings. See also n. 40 above. Davis, 33, notes that use of the square was controlled by permit.

50. Toogood, 190.

51. Davis, 130-32.

52. Michael Feldberg, *The Philadelphia Riots of 1844: A Study of Ethnic Conflict* (Westport, CT: Greenwood Press, 1975), 114-15. Also, the nativist American Republican Party had rallied in the square in a "peaceful" demonstration at the beginning of the riots.

53. Toogood, 211-12.

54. The speech was delivered from a platform erected on the Chestnut Street side of Independence Hall (see figure 29). Toogood, 212; for the quote, Toogood cites Russell F. Weigley, ed. *Philadelphia: A 300-Year History* (New York: W.W. Norton & Company, 1982), 393-94.

55. Toogood, 2133-14.

56. Sidney George Fisher, *A Philadelphia Perspective: The Diary of Sidney George Fisher Covering the Years 1834-1871*, ed. by Nicholas B. Wainwright (Philadelphia: Historical Society of Pennsylvania, 1967), 453.

57. Toogood, 215.

58. *Ibid.*, 216.

59. *Ibid.*, 219.

WOODY PLANT INVENTORY AND CONDITION ASSESSMENT REPORT FOR INDEPENDENCE SQUARE Independence National Historical Park

Olmsted Center
for
Landscape Preservation

[LEAF]

National Park Service

WOODY PLANT INVENTORY AND CONDITION ASSESSMENT REPORT FOR INDEPENDENCE SQUARE Independence National Historical Park

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National Park Service

December 1996

WOODY PLANT INVENTORY AND ASSESSMENT
INDEPENDENCE SQUARE
Independence National Historical Park

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INTRODUCTION

Background and Objectives

This Woody Plant Inventory and Assessment Report is intended to provided detailed information related to the identity and condition of trees and shrubs currently existing at Independence Square, part of the Independence National Historical Park. To this end, the report represents a portion of the Existing Conditions volume of the Cultural Landscape Report for Independence Square currently being completed collaboratively by Independence National Historical Park, the Denver Service Center, and the Olmsted Center for Landscape Preservation.

The report presents detailed data related to 88 trees and 46 mass plantings of shrubs located within and along the periphery of Independence Square. The field inventory work was accomplished in the summer 1996 by a team from the Olmsted Center and the park. Information is presented in a narrative form and as a series of maps that can be easily incorporated directly into the Cultural Landscape Report.

The report describes the procedures used to inventory and inspect the existing trees and shrubs in Independence Square. Trends and issues related to existing conditions and recommendations for management are summarized. A detailed list of all plants inventoried, inspection results, and maintenance needs are provided as addenda to the report. Also in the addenda is a Vegetation Base Map indicating the identification, location and measurements of all woody plants at the site, a map of trees over 43 years old and those over 82 years old. Maps of trees needing work or further diagnosis are also included in this section.

Scope of Work

The project area is defined as Independence Square within Independence National Historical Park (Vegetation Base Map, Addendum A). The inventory and assessment involved:

- Review of existing plant inventory documentation.
- Field inspection and identification of existing woody plants (trees and shrubs) species.
- Measurement of the height and trunk diameter, and estimation of tree age.
- Field measurement and mapping of recent plantings.
- Condition assessment of all trees and shrubs. Primary considerations for the assessment included: health; growth patterns; environmental stresses; form; scale; hazard potential; and maintenance needs.
- Development of databases indexing plant identification numbers, botanical and common

names, measurements, and field inspection notes.

- Preparation of existing conditions base maps.

- Preparation of a written report which documents procedures and results and summarizes management considerations and recommendations for future work.

Procedures

On July 24-26, 1996, an team from the Olmsted Center for Landscape Preservation, Independence National Historical Park and Fort McHenry National Monument and Historic Shrine conducted the field inventory and assessment. Team members were: Charlie Pepper (Project Lead), Supervisory Horticulturist, OCLP, Charlie Smith, Horticulturist, INDE, Paul Bitzel, Horticulturist, FOMC, and Katherine Bennett, Landscape Preservation Intern, OCLP. Procedures followed are outlined below.

- Through visual inspection of leaves, bark, and growth habit, the team identified the genus and species of all trees on site. To the extent possible through this method, shrubs were also identified to the species level, although in some cases only the genus was apparent without further study.

- Tree heights were determined using two instruments: a ranging optical tape measure and an optical reading clinometer. Both instruments rely on triangulation to establish tree height as a relationship of the user's horizontal distance from the tree and angle of sight to the highest point of the tree canopy. (Vegetation Base Map, Addendum A.)

- The diameter at breast height (DBH) of tree trunks was measured using a calibrated logger's tape. The logger's tape converts trunk circumference measurements into equivalent diameter measurements, to tenths of an inch. (Vegetation Base Map, Addendum A)

- The location of a recently planted tree (id # 18-1-100) was established using a rolling tape measure which measures ground distance. Triangulation measurements were taken from the recently planted tree to three well established trees whose location had been previously surveyed and mapped.

- Based on height, DBH, and typical growth habits, the age of each tree was estimated. (Vegetation Base Map, Addendum A) The age estimates were subsequently checked against historic base maps which indicate trees extant in 1914 and 1953. (Map of Trees Over 43 and 82 Years Old, Addendum B)

- Tree and shrub conditions were assessed by examining the trunks and stems for wounds or decay, scanning canopy for deadwood, and studying leaves and needles for signs of infestation. Plants with structural deterioration, substantial deadwood, or deadwood over-hanging walks were noted to represent a hazardous condition requiring "critical resource protection work." Non-critical work needs were classified as "resource stabilization work."

(Maps of Work Needed and Further Diagnosis, Addenda C and D, Tree and Shrub Inspections, Addenda G and H, Trees Needing Critical Resource Protection Work, Addendum I)

- The team expanded the existing plant identification numbering system used by the park to add recently planted vegetation. A unique number, keyed to the Vegetation Base Map, was assigned to each plant to indicate its' location and type. For example, the number 12-1-18 identifies tree #18 located in zone #12. The middle number "1" indicates a tree, "2" indicates a shrub.

Results

Summary

A total of 88 trees and 46 mass plantings of shrubs were inventoried, with 26 species of trees and approximately 17 species of shrubs represented (refer to the Vegetation Base Map for lists of tree and shrub species). Almost half of the trees (42%) are American Sycamore (Platanus occidentalis). Euonymus is the most frequently occurring genus of shrubs. The age of vegetation in Independence Square ranges from recent planting to trees approximately 100 -120 years old. More than 60% of the trees are over 43 years old, and approximately 40% are at least 82 years old. Shrub plantings were initiated by the NPS after it began managing the park in 1951.

Several trends in existing conditions at the site were observed. Of these trends, those of primary concern include: soil compaction around many of the older specimen trees; and trees with dead, hanging or broken limbs which are creating safety hazards for pedestrians. More detailed information and recommendations for addressing these issues is provided below.

Management Considerations

Condition of Trees

The park's ongoing tree care program is very effectively preserving the trees in Independence Square. However, poor and urban site conditions are leading to the decline in condition of several of the older trees at the site. All but ten of the trees were found to require work. Most of the work is needed to correct minor problems such as poor limb structure and growth and pest infestations. Twenty trees, however, have hazard conditions which present immediate and serious health and safety issues that should be addressed as soon as possible. The most serious hazards include dead and/or hanging limbs directly over pedestrian use areas, weak structural stability such as split leaders, and deteriorated arboricultural hardware such as broken cables.

Most of these hazards can be corrected through standard arboricultural treatments such as pruning and installing cabling and bracing. Detailed information on the condition of individual trees, existing problems and corrective work needed is provided in the Addenda.

Soil Compaction

A readily available supply of water, nutrients and air is required for healthy root growth and function. Without these essential elements, roots deteriorate, resulting in the decline and eventual death of a tree.

A great deal of the soil in Independence Square is highly compacted. This condition is resulting in poor water infiltration and a very low capacity for air to reach tree roots. In addition, the compacted soil is directly influencing the availability of nutrients. Reduced water infiltration and air exchange associated with the compacted soil reduces the tree's ability to absorb nutrients. This in turn, is inhibiting root growth and accelerating tree decline. It is extremely difficult to sustain healthy tree growth under these conditions.

Many of the trees in the Square are exhibiting poor growth habits caused by compacted soil. These habits include exposed surface roots, roots growing around or "girdling" the trunk, minimal shoot growth and reduced leaf size. Compaction is particularly a problem at park entrances, along the edges of planting beds, and in areas where visitors wait to enter Independence Hall and adjoining buildings.

Recommendations

The existing tree canopy at Independence Square is an important feature which reflects the historic character of the property. While each tree contributes to the overall effect of the site, the parks' tree care program should focus on perpetuating the canopy rather than undertaking "heroic" measures aimed at preserving individual trees. Maintenance priorities should be given to reducing hazardous tree conditions such as hanging limbs, improving site conditions by minimizing soil compaction, implementing a tree replacement program that is sensitive to the historic character of the property, and preparing a Preservation Maintenance Plan for the landscape which guides ongoing care of the site.

Tree care recommendations are provided in Addendum G.- Tree Inspection. While the work needs are prescribed for individual trees, the combined objectives of the recommendations are to perpetuate the character of the canopy. The work identified as critical, in Addendum I, should be addressed first.

Compacted soil at the site should be evaluated in more detail. A careful analysis of soil structure and composition will aid in determining site rehabilitation and management needs. The success of preserving the tree canopy at the site is dependent on an understanding of existing soil conditions. Site specific soil treatments can be developed which reduce compaction, improve tree growing conditions and cause minimal site disturbance.

A Landscape Preservation Maintenance Plan which defines clear objectives and procedures for the care of the property should be prepared. The Plan will support and enhance current maintenance operations by describing site specific preservation maintenance practices, providing a schedule for guiding maintenance tasks and identifying potential threats or impacts to the resource. In

addition, a monitoring calendar integrated with a record keeping system will provide a format for park staff to document information about the condition of the landscape over time.

Independence Square

Addendum D. Tree Inventory

Location*	ID#	Botanical Name	Common Name	Status
0	1	Ulmus campestris	English Elm	present
0	2	Ulmus americana	American Elm	removed
0	3	Ulmus americana	American Elm	removed
0	4	Ulmus americana	American Elm	present
0	5	Ulmus campestris	English Elm	present
2	6	Quercus rubra	Red Oak	present
5	7	Quercus palustris	Pin Oak	present
9	8	Platanus occidentalis	American Sycamore	present
9	9	Platanus occidentalis	American Sycamore	present
9	10	Ailanthus altissima	Tree of Heaven	removed
9	11	Aesculus hippocastanum	Horsechestnut	removed
13	12	Platanus occidentalis	American Sycamore	present
9	13	Ulmus americana	American Elm	present
1	14	Ginkgo biloba	Ginkgo	present
9	15	Platanus occidentalis	American Sycamore	present
13	16	Ulmus americana	American Elm	present
11	17	Platanus occidentalis	American Sycamore	present
12	18	Quercus rubra	Red Oak	removed
13	19	Platanus occidentalis	American Sycamore	present
9	20	Ulmus americana	American elm	present
12	21	Platanus occidentalis	American Sycamore	present
13	22	Platanus x. acerifolia	London Plane Tree	present
13	23	Quercus rubra	Red Oak	removed
11	24	Quercus macrocarpa	Bur Oak	removed
12	25	Ulmus americana	American Elm	present
13	26	Platanus occidentalis	American Sycamore	present
11	27	Quercus rubra	Red Oak (stump)	removed
11	28	Magnolia soulangeana	Saucer Magnolia	present
13	29	Stewartia koreana	Korean Stewartia	present
9	30	Platanus occidentalis	American Sycamore	present
9	31	Platanus occidentalis	American Sycamore	present
11	32	Oxydendrum arboreum	Sourwood	present
11	33	Ginkgo biloba	Ginkgo	present
12	34	Quercus rubra	Red Oak	present
12	35	Fraxinus americana	White Ash	present
13	36	Platanus occidentalis	American Sycamore	present
18	37	Platanus occidentalis	American Sycamore	present
19	38	Acer saccharum	Sugar Maple	present
22	39	Acer saccharum	Sugar Maple	present
23	40	Platanus occidentalis	American Sycamore	present
23	41	Platanus occidentalis	American Sycamore	present
19	42	Platanus occidentalis	American Sycamore	present
19	43	Platanus occidentalis	American Sycamore	present
22	44	Platanus occidentalis	American Sycamore	present
22	45	Tilia cordata	Littleleaf Linden	present
23	46	Acer platanoides	Norway Maple	present
23	47	Quercus rubra	Red Oak	present
18	48	Gymnocladus dioicus	Kentucky Coffeetree	present
18	49	Ulmus americana	American Elm	present
20	50	Magnolia soulangeana	Saucer Magnolia	present
21	51	Platanus occidentalis	American Sycamore	present

**Location refers to grounds plot numbers assigned by the park and identified on the Vegetation Base Map, Addendum A, lower left corner.*

Independence Square

Addendum D. Tree Inventory

Location*	ID#	Botanical Name	Common Name	Status
22	52	Magnolia soulangeana	Saucer Magnolia	present
23	53	Acer saccharum	Sugar Maple	present
20	54	Platanus occidentalis	American Sycamore	present
21	55	Liriodendron tulipifera	Tulip Tree	present
23	56	Fagus sylvatica 'Asplenifolia'	Fernleaf Beech	present
18	57	Quercus rubra	Red Oak	present
20	58	Platanus occidentalis	American Sycamore	present
23	59	Ailanthus altissima	Tree of Heaven	present
18	60	Platanus occidentalis	American Sycamore	present
27	61	Platanus occidentalis	American Sycamore	present
0	62	Platanus occidentalis	American Sycamore	removed
30	63	Platanus occidentalis	American Sycamore	present
18	64	Quercus rubra	Red Oak	present
18	65	Platanus occidentalis	American Sycamore	present
27	66	Ulmus americana	American Elm	present
30	67	Platanus occidentalis	American Sycamore	present
0	68	(unknown)		removed
23	69	Platanus occidentalis	American Sycamore	present
18	70	Quercus rubra	Red Oak	present
18	71	Ulmus parvifolia	Chinese Elm	present
27	72	Platanus occidentalis	American Sycamore	present
0	73	Platanus occidentalis	American Sycamore	removed
30	74	Platanus occidentalis	American Sycamore	present
30	75	Acer saccharinum	Silver maple	present
23	76	Platanus occidentalis	American Sycamore	present
27	77	Ulmus parvifolia	Chinese Elm	present
27	78	Platanus occidentalis	American Sycamore	present
30	79	Liriodendron tulipifera	Tulip tree	present
18	80	Ulmus americana [stump]	American Elm	removed
27	81	Castanea mollissima	Chinese Chestnut	present
30	82	Platanus occidentalis	American Sycamore	present
30	83	Platanus occidentalis	American Sycamore	present
23	84	Platanus occidentalis	American Sycamore	present
23	85	Ulmus parvifolia	Chinese Elm	present
27	86	Quercus rubra	Red Oak	replaced
27	87	Quercus rubra	Red Oak	present
27	88	Quercus palustris	Pin Oak	present
27	89	Platanus occidentalis	American Sycamore	present
30	90	Platanus occidentalis	American Sycamore	present
30	91	Celtis occidentalis	Hackberry	present
30	92	Acer saccharum	Sugar Maple	present
30	93	Ulmus americana	American Elm	present
30	94	Platanus occidentalis	American Sycamore	present
9	95	Fraxinus pennsylvanica lanc.	Green Ash 'Patmore'	present
9	96	Fraxinus pennsylvanica lanc.	Green Ash 'Patmore'	present
27	97	Castanea mollissima	Chinese Chestnut	present
18	98	Acer rubrum	Red Maple	present
27	99	Acer saccharum	Sugar Maple	present
18	100	Platanus occidentalis	American Sycamore	present

**Location refers to grounds plot numbers assigned by the park and identified on the Vegetation Base Map, Addendum A, lower left corner.*

Independence Square

Addendum E. Shrub Inventory

Location*	ID#	Botanical Name	Common Name	Status
6	1	Ilex x meserveae 'China Girl'	China Girl Holly	present
7	2	Ilex x meserveae 'China Girl'	China Girl Holly	present
8	3	Rhodotypos scandens, Hedera Helix	Jet Bead underplanted with English Ivy	present
8	4	Viburnum sp.	Viburnum	present
10	5	Euonymus sp.	Euonymus	present
10	6	Euonymus sp.	Euonymus	present
10	7	Forsythia x intermedia	Forsythia	present
10	8	Taxus baccata 'Repandens'	English Spreading Yew	present
14	9	Viburnum sp.	Viburnum	present
14	10	Rhodotypos scandens, Hedera Helix	Jet Bead underplanted with English Ivy	present
14	11	Viburnum rhytidophyllum	Leatherleaf Viburnum	present
15	12	Euonymus sp.	Kamchatka Euonymus	present
15	13	Abelia grandiflora	Glossy Abelia	present
15	14	Forsythia x intermedia	Forsythia	present
15	15	Spiraea x vanhouttei	Vanhoutte Spirea	present
16	16	Euonymus fortunei	Wintercreeper Euonymus	present
16	17	Euonymus sp.	Kamchatka Euonymus	present
16	18	Forsythia x intermedia	Forsythia	present
17	19	Euonymus sp.	Euonymus	present
17	20	Ligustrum sp.	Privet	present
24	21	Forsythia x intermedia	Forsythia	present
24	22	Deutzia gracilis	Slender Deutzia	present
24	23	Euonymus sp.	Kamchatka Euonymus	present
25	24	Euonymus sp.	Euonymus	present
25	25	Vinca minor	Periwinkle	present
25	26	Taxus baccata 'Repandens'	English Spreading Yew	present
25	27	Spiraea x vanhouttei	Vanhoutte Spirea	present
25	28	Rhododendron sp.	Azalea	present
26	29	Forsythia x intermedia	Forsythia	present
26	30	Rosa sp.	Rose	present
26	31	Euonymus sp.	Kamchatka Euonymus	present
26	32	Euonymus sp.	Euonymus	present
28	33	Euonymus sp.	Kamchatka Euonymus	present
29	34	Euonymus sp.	Kamchatka Euonymus	present
29	35	Forsythia x intermedia	Forsythia	present
31	36	Euonymus sp.	Kamchatka Euonymus	present
31	37	Ilex crenata	Japanese Holly	present
31	38	Ulmus parvifolia	Chinese Elm (a volunteer)	present
31	39	Forsythia x intermedia	Forsythia	present
31	40	Deutzia gracilis	Slender Deutzia	present
31	41	Taxus baccata 'Repandens'	English Spreading Yew	present
31	42	Acanthopanax sieboldianus	Fiveleaf Aralia	present
32	43	Euonymus sp.	Euonymus	present
32	44	Acanthopanax sieboldianus	Fiveleaf Aralia	present
32	45	Taxus baccata 'Repandens'	English Spreading Yew	present
32	46	Forsythia x intermedia	Forsythia	present

**Location refers to grounds plot numbers assigned by the park and identified on the Vegetation Base Map, Addendum A, lower left corner.*

Independence Square

Addendum F. Tree Inspection

Location * Plant id# Status	Botanical Name Common Name	Condition comments *Work needs*
0 - 1 present	Ulmus campestris English Elm	Small leaf size and extension indicates stunted growth. Minor deadwood. Root growth girdling lower part of trunk. Probably as a result of root damage, previous planting pit dismantled and increased in size by approx. 1 foot several years ago. *Remove minor deadwood.*
0 - 4 present	Ulmus americana American Elm	Epicormic growth. Minor deadwood. Planting pit too small for tree size. *Diagnose stressors causing epicormic growth. Remove deadwood. Evaluate enlargement of planting pit.*
0 - 5 present	Ulmus campestris English Elm	Stunted leaves and shoots. Minor deadwood. Root growth girdling probably resulting from the inadequately sized planting pit. *Remove deadwood.*
1 - 14 present	Ginkgo biloba Ginkgo	Root ball appears to have settled slightly below grade since planting. Sapsucker damage. *Prune for structural training. Remove 2nd leader.*
2 - 6 present	Quercus rubra Red Oak	Deadwood throughout canopy. Soil heavily compacted. One minor girdling root on building side. Thin crown. Insect damage upper crown, some leaf feeding. Die-back on south side. *Remove deadwood. Consider cabling.*
5 - 7 present	Quercus palustris Pin Oak	Soil compaction. Root flare
9 - 8 present	Platanus occidentalis American Sycamore	Weeping at old sealed branch collar. Lack of root flare on east side may indicate girdling root. Old drain tube is becoming included by trunk, and extends from trunk in such a position that it could hurt someone. *Shorten drain tube.*

** Location refers to grounds plot numbers assigned by the park and identified on the Vegetation Base Map, Addendum A, lower left corner.*

Independence Square

Addendum F. Tree Inspection

Location * Plant id# Status	Botanical Name Common Name	Condition comments *Work needs*
[illegible] present	[illegible] American Sycamore	Old trunk crack partially sealed, some weeping. Old drain tube inserted within crack. Wound closure growth is ramshorning adventitious feeder roots on west side at soil surface. Minor deadwood. *Shorten longest branches over walks.*
9 - 13 present	Ulmus americana American Elm	South side of canopy is in heavy competition with tree #20. Sapsucker damage from 4' up through canopy on trunk and major limbs. Soil grade has been brought above root flare on south side. Deadwood. Girdling roots. *Carefully remove soil from trunk to expose root flare. Remove deadwood.*
9 - 15 present	Platanus occidentalis American Sycamore	Minor hangers and scattered deadwood. Adventitious roots at soil surface and some girdling roots may have resulted from the soil compaction and curb installation. Leaf insect. *Remove hangers and deadwood.*
9 - 20 present	Ulmus americana American elm	Stunted growth. Deadwood throughout canopy and over walk. Weeping lower trunk from drain tube. Root flare on east side. Circular disk tag #18. Rolled leaf condition. *Thin crown to reduce canopy competition with tree #13. Monitor rolled leaf condition.*
9 - 30 present	Platanus occidentalis American Sycamore	No crown on east side. Some adventitious rooting on southeast side. Suckers. *Prune back over walk.*
9 - 31 present	Platanus occidentalis American Sycamore	Whirl of 7 limbs originating at 30' up. Trunk leaning 10 degrees. One girdling root on northwest side. Minor deadwood. *Remove deadwood.*

**Location refers to grounds plot numbers assigned by the park and identified on the Vegetation Base Map, Addendum A, lower left corner.*

Independence Square

Addendum F. Tree Inspection

Location * Plant id# Status	Botanical Name Common Name	Condition comments *Work needs*
9 - 95 present	Fraxinus pennsylvanica lanc. Green Ash 'Patmore'	Replacement tree planted 1991. Oyster shell scale. *Treat oyster shell scale.*
9 - 96 present	Fraxinus pennsylvanica lanc. Green Ash 'Patmore'	Replacement tree planted 1991. Oyster shell scale. Trunk scarring. Needs pruning to encourage good branch framework. *Prune to encourage good branch framework.*
11 - 17 present	Platanus occidentalis American Sycamore	Trunk is leaning 20 degrees to the east. Canopy on west side is in competition with tree #15. Minor suckers on trunk. Girdling root. Insect is present on leaves. *Remove suckers. Plan for replacement within 5 years due to substantial lean.*
11 - 28 present	Magnolia soulangeana Saucer Magnolia	Trunk leans 20 degrees to east. Root damage on the east side has caused water sprouts and suckers.
11 - 32 present	Oxydendrum arboreum Sourwood	Water stress. Minor deadwood throughout.
11 - 33 present	Ginkgo biloba Ginkgo	Secondary crotch at 10' is narrow. Three sets of whorled branches between 10' and 15'. Trunk wounded approximately 5 years ago, callous has not closed wound. *Needs light structural pruning.*
12 - 21 present	Platanus occidentalis American Sycamore	No canopy on east side. Deadwood. Vertical crack with associated decay. Broken leader with suckers. Some old pruning cuts are not healing well. Adventitious roots and girdling. *Remove hazardous deadwood.*
12 - 25 present	Ulmus americana American Elm	Cables installed with lag bolts, rather than threaded rod. Brace installed at joint using rod, resulting in callous growth. Slime flux at crown and on branch cuts. Drain pipes installed at root flare - one is weeping. Sapsucker damage. Lack of root flare

**Location refers to grounds plot numbers assigned by the park and identified on the Vegetation Base Map, Addendum A, lower left corner.*

Independence Square

Addendum F. Tree Inspection

Location * Plant id# Status	Botanical Name Common Name	Condition comments *Work needs*
		Thin suckers
12 - 34 present	Quercus rubra Red Oak	Narrow crotch between primary leaders. Major deadwood over walk. Cables undersized for limb weight. Remnant of an original tag is present. *Remove hazardous deadwood. Remove existing cables and reinstall single heavier guage cable at 35' between primary leaders.*
12 - 35 present	Fraxinus americana White Ash	No crown on west side. Deadwood throughout crown. Well-established cavity on east side. Some rams-horning of woun closure growth. Major girdling root on west side. *Remove deadwood. Plan for replacement.*
13 - 12 present	Platanus occidentalis American Sycamore	Good form/condition. Oozing wound on trunk. Staples on trunk. Suckers. *Desucker.*
13 - 16 present	Ulmus americana American Elm	Significant sapsucker damage. Soil mounded over root flare. Potential girdling roots. *Carefully reduce soil grade to expose root flare. Prune.*
13 - 19 present	Platanus occidentalis American Sycamore	Trunk leaning 10 degrees to east. Canopy on west side is thin as a result of competition with surrounding trees. No root flare on south side, possibly due to subgrade girdling root. Minor deadwood. *Prune to protect structure.*
13 - 22 present	Platanus x. acerifolia London Plane Tree	Narrow, 2-dimensional canopy. Insect damage to leaves. Drain pipe weeping. Dead branch and snag. *Identify insect.*

**Location refers to grounds plot numbers assigned by the park and identified on the Vegetation Base Map, Addendum A, lower left corner.*

Independence Square

Addendum F. Tree Inspection

Location * Plant id# Status	Botanical Name Common Name	Condition comments *Work needs*
13 - 26 present	Platanus occidentalis American Sycamore	Insect damage to leaves. Hazardous deadwood throughout crown. Suckers. *Desucker. Remove hazardous deadwood throughout crown.*
13 - 29 present	Stewartia koreana Korean Stewartia	Dead branches and shoots. Significant deadwood throughout. Crown die-back. Tree may be suffering from transplant shock. *Remove deadwood. Plan for replacement.*
13 - 36 present	Platanus occidentalis American Sycamore	Co-leader trunk with weak, narrow crotch. Cable under-sized for limb weight and installed with lags. *Remove and replace cable with heavier guage using threaded rod.*
18 - 37 present	Platanus occidentalis American Sycamore	Branch die-back. Hazardous deadwood over walk and bench. Bark damage above root flare. Decay in healed branch cut from trunk. *Remove hazardous deadwood over walk and bench.*
18 - 48 present	Gymnocladus dioicus Kentucky Coffeetree	Co-dominant leaders need bracing. Lacebug present. *Brace co-dominant leaders with through-rod.*
18 - 49 present	Ulmus americana American Elm	Hazardous dead limb over walk, and minor deadwood throughout canopy. Old root injury. Three ooze tubes at root flare. Girdling roots. *Remove hazardous limb over walk and other deadwood.*
18 - 57 present	Quercus rubra Red Oak	Girdling root. Deadwood, small hanger, and snag. Disk tag #35. *Remove deadwood, hanger, and snag.*
18 - 60 present	Platanus occidentalis American Sycamore	Hazardous deadwood. Girdling root. Leaf insect present. *Remove hazardous deadwood. Diagnose insect.*

**Location refers to grounds plot numbers assigned by the park and identified on the Vegetation Base Map, Addendum A, lower left corner.*

Independence Square

Addendum F. Tree Inspection

Location * Plant id# Status	Botanical Name Common Name	Condition comments *Work needs*
18 - 64 present	Quercus rubra Red Oak	Hazardous deadwood over sidewalk and road. *Remove hazardous deadwood.*
18 - 65 present	Platanus occidentalis American Sycamore	Girdling exposed root. Flat sided truak may indicate further root girdling. Cables should be inspected. Leaf insect present. *Cut exposed girdling root. Inspect cabling.*
18 - 70 present	Quercus rubra Red Oak	Deadwood. Weeping crack in root flare. Girdling roots. *Remove deadwood. Desucker.*
18 - 71 present	Ulmus parvifolia Chinese Elm	Abnormal defoliation has been observed for several years. Broken leader. *Plan for replacement. Diagnose cause of defoliation. Elevate canopy.*
18 - 98 present	Acer rubrum Red Maple	*Prune to enhance and train. Mulch.*
18 - 100 present	Platanus occidentalis American Sycamore	Deadwood. *Remove deadwood. Mulch.*
19 - 38 present	Acer saccharum Sugar Maple	Limb 15' up on north side over walk is split, decay is healing over. *Remove split branch at 15'.*
19 - 42 present	Platanus occidentalis American Sycamore	Insect damage to foliage. Trunk leans 10 degrees to west. Sealed crack from 20'-30' up. Oozing scar on trunk from limb *Diagnose insect.*
19 - 43 present	Platanus occidentalis American Sycamore	Trunk leans 10 degrees to north. Insufficient guage cable for limb weight. Small cavity in trunk at 12'. Decay wound in trunk at branch scar. Minor deadwood.

**Location refers to grounds plot numbers assigned by the park and identified on the Vegetation Base Map, Addendum A, lower left corner.*

Independence Square

Addendum F. Tree Inspection

Location * Plant id# Status	Botanical Name Common Name	Condition comments *Work needs*
		Replace existing cable with heavier guage cable.
20 - 50 present	Magnolia soulangeana Saucer Magnolia	Minor deadwood and suckers.
20 - 54 present	Platanus occidentalis American Sycamore	Oozing bark ridge. Leaf insect. *Diagnose insect.*
20 - 98 present	Platanus occidentalis American Sycamore	Suckers. *Desucker.*
21 - 51 present	Platanus occidentalis American Sycamore	Deadwood. Suckers. Insect damage to leaves. *Remove suckers. Remove deadwood.*
21 - 55 present	Liriodendron tulipfera Tulip Tree	Deadwood and hanger. *Remove deadwood and hanger.*
22 - 39 present	Acer saccharum Sugar Maple	Thin leggy growth. Two major girdling roots. Minimal root flare on south side. Minor deadwood.
22 - 44 present	Platanus occidentalis American Sycamore	Crown reduction over statue. Split leader. *Cable split leader.*
22 - 45 present	Tilia cordata Littleleaf Linden	Sapsucker damage. Thin crown. Squirrel damage on base of trunk. Girdling roots
22 - 52 present	Magnolia soulangeana Saucer Magnolia	Minor deadwood. Some trunk damage which is healing. Included bark.

**Location refers to grounds plot numbers assigned by the park and identified on the Vegetation Base Map, Addendum A, lower left corner.*

Independence Square

Addendum F. Tree Inspection

Location * / Plant id# / Status	Botanical Name / Common Name	Condition comments / *Work needs*
23 - 40 present	Platanus occidentalis American Sycamore	Hazardous deadwood. Trunk leans 10 degrees to northwest. Insect damage to foliage. *Remove hazardous deadwood over walks.*
23 - 41 present	Platanus occidentalis American Sycamore	Watersprouts and some suckering from base. Hazardous deadwood in crown. *Remove hazardous deadwood from crown. Desucker.*
23 - 46 present	Acer platanoides Norway Maple	Minor deadwood. Girdling roots.
23 - 47 present	Quercus rubra Red Oak	Included bark on leader. Needs cabling. Minor mite damage. Confirm species identification. *Cable. Confirm species identification.*
23 - 53 present	Acer saccharum Sugar Maple	Appears to have been pruned recently. Open canopy. Included bark between twin leaders. Girdling roots.
23 - 56 present	Fagus sylvatica 'Asplenifolia Fernleaf Beech	Minor mite damage. Minor deadwood due to self-shading. Small hanger. Girdling roots. Some included bark between limbs of leaders. Water pond between the two leaders. Through-rod installation is recommended in near future. *Install through-rod.*
23 - 59 present	Ailanthus altissima Tree of Heaven	Male plant - no seeds. Girdling roots. Screw in trunk from tag. Fissure cracks in lower trunk, one healed, one fairly recent. Deadwood. Small hanger. *Remove deadwood. Cut exposed girdling root. Inspect cables.*

**Location refers to grounds plot numbers assigned by the park and identified on the Vegetation Base Map, Addendum A, lower left corner.*

Independence Square

Addendum F. Tree Inspection

Location * Plant id# Status	Botanical Name Common Name	Condition comments *Work needs*
23 - 69 present	Platanus occidentalis American Sycamore	Deadwood over walk. Minor anthracnose. Unidentified leaf damage. Suckers. *Remove hazardous deadwood over walk. Thin suckers. Diagnose leaf damage.*
23 - 76 present	Platanus occidentalis American Sycamore	Broken cable. Oozing trunk fissure. Suckers. Leaf insect. *Replace broken cable with through-rod between leaders. Install cable on lowest limb.*
23 - 84 present	Platanus occidentalis American Sycamore	Loose cable needs replacement with through-rod. Hanger. Bark ridge. Girdled root. Minor anthracnose - stippled foliage. *Replace loose cable with through-rod. Remove hanger.*
23 - 85 present	Ulmus parvifolia Chinese Elm	Deadwood and hangers. Girdling root. Some shading by adjacent trees has resulted in a thin canopy. *Remove deadwood and hangers.*
27 - 61 present	Platanus occidentalis American Sycamore	Root flare half enclosed by pavement. Suckers. *Desucker.*
27 - 66 present	Ulmus americana American Elm	Flat sided trunk indicates root girdling. leaf skeletonizing. Pruning is needed. Species should also be confirmed: upper surface of foliage is smooth. *Prune. Confirm species.*
27 - 72 present	Platanus occidentalis American Sycamore	Minor deadwood (2 hangers). Minor root girdling. *Remove deadwood.*
27 - 77 present	Ulmus parvifolia Chinese Elm	Wound on main limb oozing flux. Minor deadwood *Remove deadwood. Elevate canopy.*

**Location refers to grounds plot numbers assigned by the park and identified on the Vegetation Base Map, Addendum A, lower left corner.*

Independence Square

Addendum F. Tree Inspection

Location * Plant id# Status	Botanical Name Common Name	Condition comments *Work needs*
27 - 78 present	Platanus occidentalis American Sycamore	Two girdling roots. *Cut girdling roots.*
27 - 81 present	Castanea mollissima Chinese Chestnut	Two scales on trunk: hemispherical and white scale. Canopy should be elevated. *Diagnose scales. Elevate canopy.*
27 - 87 present	Quercus rubra Red Oak	Deadwood and suckers. Species confirmation needed. *Remove deadwood. Desucker.*
27 - 88 present	Quercus palustris Pin Oak	Deadwood. Disk tag #54 *Remove deadwood.*
27 - 89 present	Platanus occidentalis American Sycamore	Concrete covers 2/3 of root flare. Decay at two cuts on main trunk should be monitored. *Monitor decay at two cuts on main trunk.*
27 - 97 present	Castanea mollissima Chinese Chestnut	Minimal insect damage *Prune.*
27 - 99 present	Acer saccharum Sugar Maple	Replacement tree planted 1995. May be a cultivar. Minor deadwood. *Remove deadwood. Check identification. This may be a cultivar.*
30 - 63 present	Platanus occidentalis American Sycamore	Powdery mildew and insect damage on leaves. Oozing wound on flare. Shaded by adjacent trees: thin canopy, undersized leaves. Deadwood. *Remove deadwood.*

**Location refers to grounds plot numbers assigned by the park and identified on the Vegetation Base Map, Addendum A, lower left corner.*

Independence Square

Addendum F. Tree Inspection

Location * Plant id# Status	Botanical Name Common Name	Condition comments *Work needs*
30 - 67 present	Platanus occidentalis American Sycamore	Anthracnose insect sucking and skeletonizing foliage. Seam in trunk. Recent root flare damage. Hanger over walk is hazardous. *Remove deadwood. Hanger over walk is hazardous.*
30 - 74 present	Platanus occidentalis American Sycamore	Pavement encloses half of root flare. Stippling, skeletonizing. *Diagnose insect responsible for foliage damage.*
30 - 75 present	Acer saccharinum Silver maple	Slime flux. Recent mower and root flare damage. Girdling with snags. Broken limbs and hangers. Broken cable between leaders. *Remove hazardous limbs and hangers.*
30 - 79 present	Liriodendron tulipfera Tulip tree	Deadwood over walk. Poor root flare. *Remove hazardous deadwood over walk.*
30 - 82 present	Platanus occidentalis American Sycamore	Dead limbs and snags. Decay in branch cuts on trunk should be monitored. Some anthracnose. Insect damage to foliage. *Remove hazardous dead limbs. Diagnose insects. Monitor decay in branch cuts on trunk. Prune dead limb snags.*
30 - 83 present	Platanus occidentalis American Sycamore	Poor growth. Two deep wounds in trunk with decay. Leaf skeletonizing and stippling. *Plan for replacement.*
30 - 90 present	Platanus occidentalis American Sycamore	Half of root flare is enclosed by concrete. Cable should be inspected and possibly replaced with a through-rod. Suckers. Leaf insect. *Inspect cable for need to replace with through-rod. Desucker.*
30 - 91 present	Celtis occidentalis Hackberry	Minor leaf insect damage.

**Location refers to grounds plot numbers assigned by the park and identified on the Vegetation Base Map, Addendum A, lower left corner.*

Independence Square

Addendum F. Tree Inspection

Location * Plant id# Status	Botanical Name Common Name	Condition comments *Work needs*
30 - 92 present	Acer saccharum Sugar Maple	Flattened quarter of root flare may indicate girdling root. Minor leaf damage from chewing insect. *Monitor leaf stippling.*
30 - 93 present	Ulmus americana American Elm	Minor deadwood - a few dead branches. *Remove deadwood.*
30 - 94 present	Platanus occidentalis American Sycamore	Dead zones on root flare should be monitored. Girdling roots. *Monitor dead zones on root flare.*

**Location refers to grounds plot numbers assigned by the park and identified on the Vegetation Base Map, Addendum A, lower left corner.*

Independence Square

Addendum G. Shrub Inspection

Location * Plant id# Status	Botanical Name Common Name	Condition comments *Work needs*
6 - 1 present	Ilex x meserveae 'China Girl' China Girl Holly	Planted in 1992-93. *Prune. Fill in missing plants.*
7 - 2 present	Ilex x meserveae 'China Girl' China Girl Holly	*Prune. Fill in missing plants.*
8 - 3 present	Rhodotypos scandens, Hedera Helix Jet Bead underplanted with English Ivy	Rat holes in bed. Pruning technique should be changed to renewal pruning. *Renewal prune for more natural shape.*
8 - 4 present	Viburnum sp. Viburnum	*Prune for renewal.*
10 - 5 present	Euonymus sp. Euonymus	Minimal crowding from adjacent Forsythia. *Prune for rejuvenative growth and back from park walk.*
10 - 6 present	Euonymus sp. Euonymus	*Prune for rejuvenative growth.*
10 - 7 present	Forsythia x intermedia Forsythia	*Branches headed back should be pruned from base only.*
10 - 8 present	Taxus baccata 'Repandens' English Spreading Yew	
14 - 9 present	Viburnum sp. Viburnum	*Prune for renewal.*

*Location refers to grounds plot numbers assigned by the park and identified on the Vegetation Base Map, Addendum A, lower left corner.

Independence Square

Addendum G. Shrub Inspection

Location * / Plant id# / Status	Botanical Name / Common Name	Condition comments / *Work needs*
14 - 10 present	Rhodotypos scandens, Hedera Helix Jet Bead underplanted with English Ivy	*Prune for renewal.*
14 - 11 present	Viburnum rhytidophyllum Leatherleaf Viburnum	Shrub is overgrowing walks. *Prune: Elevate crown to allow passage under the foliage, or shear or selectively prune out shoots to maintain density.*
15 - 12 present	Euonymus sp. Kamchatka Euonymus	Euonymous scale in interior. *Diagnose and treat Euonymous scale on interior.*
15 - 13 present	Abelia grandiflora Glossy Abelia	
15 - 14 present	Forsythia x intermedia Forsythia	Pruning technique should be altered from shearing back to renewal pruning on this and all the forsythias. *Prune for renewal.*
15 - 15 present	Spiraea x vanhouttei Vanhoutte Spirea	
16 - 16 present	*Euonymus fortunei* Wintercreeper Euonymus	Black Vine Weevil present. *Treat Black Vine weevil.*
16 - 17 present	Euonymus sp. Kamchatka Euonymus	
16 - 18 present	Forsythia x intermedia Forsythia	*Prune for renewal.*

*Location refers to grounds plot numbers assigned by the park and identified on the Vegetation Base Map, Addendum A, lower left corner.

Independence Square

Addendum G. Shrub Inspection

Location * Plant id# Status	Botanical Name Common Name	Condition comments *Work needs*
17 - 19 present	Euonymus sp. Euonymus	*Prune for rejuvenative growth and back from 6th Street sidewalk.*
17 - 20 present	Ligustrum sp. Privet	Heavily crowded by Euonymous. *Prune back from 6th Street sidewalk.*
24 - 21 present	Forsythia x intermedia Forsythia	*Prune for renewal.*
24 - 22 present	Deutzia gracilis Slender Deutzia	White blossoms. Pruning technique should be altered to renewal pruning. *Prune for renewal.*
24 - 23 present	Euonymus sp. Kamchatka Euonymus	No scale.
25 - 24 present	Euonymus sp. Euonymus	*Prune for rejuvenative growth.*
25 - 25 present	Vinca minor Periwinkle	No pests. Weeds, well established throughout the bed, are over-running the plants and causing some die-back. *Weed entire bed. Interplant with plugs of vinca.*
25 - 26 present	Taxus baccata 'Repandens' English Spreading Yew	Crowded by adjacent spirea.
25 - 27 present	Spiraea x vanhouttei Vanhoutte Spirea	This shrub is crowding adjacent yews and azalea. *Prune for rejuvenative growth.*

*Location refers to grounds plot numbers assigned by the park and identified on the Vegetation Base Map, Addendum A, lower left corner.

Independence Square

Addendum G. Shrub Inspection

Location * Plant id# Status	Botanical Name Common Name	Condition comments *Work needs*
25 - 28 present	Rhododendron sp. Azalea	Crowded by adjacent spirea.
26 - 29 present	Forsythia x intermedia Forsythia	Some crowding from adjacent roses and Euonymous. *Prune for rejuvenative growth.*
26 - 30 present	Rosa sp. Rose	Irregular growth. Crowding from adjacent Forsythia. Several old canes among branches. *Prune for rejuvenative growth.*
26 - 31 present	Euonymus sp. Kamchatka Euonymus	Some crowding from adjacent Forsythia. Minimal new growth from base. *Prune for rejuvenative growth.*
26 - 32 present	Euonymus sp. Euonymus	Weeds well established. Very large size may seem out of scale for the park. No new growth from base. *Plan for replacement.*
28 - 33 present	Euonymus sp. Kamchatka Euonymus	No cables. Minimal new growth from base. *Prune for rejuvenative growth.*
29 - 34 present	Euonymus sp. Kamchatka Euonymus	*Elevate canopy – Limb to reduce shading.*
29 - 35 present	Forsythia x intermedia Forsythia	*Elevate canopy – Limb to reduce shading.*
31 - 36 present	Euonymus sp. Kamchatka Euonymus	

*Location refers to grounds plot numbers assigned by the park and identified on the Vegetation Base Map, Addendum A, lower left corner.

Independence Square

Addendum G. Shrub Inspection

Location * Plant id# Status	Botanical Name Common Name	Condition comments *Work needs*
31 - 37 present	Ilex crenata Japanese Holly	*Remove.*
31 - 38 present	Ulmus parvifolia Chinese Elm (a volunteer)	Tree seedling in bed should be removed or transplanted. *Remove or transplant.*
31 - 39 present	Forsythia x intermedia Forsythia	*Prune for renewal.*
31 - 40 present	Deutzia gracilis Slender Deutzia	*Remove deadwood.*
31 - 41 present	Taxus baccata 'Repandens' English Spreading Yew	
31 - 42 present	Acanthopanax sieboldianus Fiveleaf Aralia	Some dieback. *Remove deadwood.*
32 - 43 present	Euonymus sp. Euonymus	
32 - 44 present	Acanthopanax sieboldianus Fiveleaf Aralia	Some dieback. *Remove deadwood.*
32 - 45 present	Taxus baccata 'Repandens' English Spreading Yew	Some dieback. *Remove deadwood.*

*Location refers to grounds plot numbers assigned by the park and identified on the Vegetation Base Map, Addendum A, lower left corner.

Independence Square

Addendum G. Shrub Inspection

Location * / Plant id# / Status	Botanical Name / Common Name	Condition comments / *Work needs*
32 - 46 / present	Forsythia x intermedia / Forsythia	Crowded. / *Prune for renewal.*

*Location refers to grounds plot numbers assigned by the park and identified on the Vegetation Base Map, Addendum A, lower left corner.

Independence Square

Addendum H. Trees Needing Critical Resources Protection Work

Location ** Plant id# Status	Botanical Name Common Name	Condition comments *Work needs*
9 - 20 present	Ulmus americana American elm	Stunted growth. Deadwood throughout canopy and over walk. Weeping lower trunk from drain tube. Root flare on east side. Circular disk tag #18. Rolled leaf condition. *Remove hazardous deadwood.*
12 - 21 present	Platanus occidentalis American Sycamore	No canopy on east side. Deadwood. Vertical crack with associated decay. Broken leader with suckers. Some old pruning cuts are not healing well. Adventitious roots and girdling. *Remove hazardous deadwood.*
12 - 34 present	Quercus rubra Red Oak	Narrow crotch between primary leaders. Major deadwood over walk. Cables undersized for limb weight. Remnant of an original tag is present. *Remove hazardous deadwood.*
12 - 35 present	Fraxinus americana White Ash	No crown on west side. Deadwood throughout crown. Well-established cavity on east side. Some rams-horning of wound closure growth. Major girdling root on west side. *Remove hazardous deadwood.*
13 - 26 present	Platanus occidentalis American Sycamore	Insect damage to leaves. Hazardous deadwood throughout crown. Suckers. *Remove hazardous deadwood throughout crown.*
18 - 37 present	Platanus occidentalis American Sycamore	Branch die-back. Hazardous deadwood over walk and bench. Bark damage above root flare. Decay in healed branch cut from trunk. *Remove hazardous deadwood over walk and bench.*
18 - 49 present	Ulmus americana American Elm	Hazardous dead limb over walk, and minor deadwood throughout canopy. Old root injury. Three ooze tubes at root flare. Girdling roots. *Remove hazardous limb over walk and other deadwood.*

* No shrubs were identified as needing critical resource protection work.
**Location refers to grounds plot numbers assigned by the park and identified on the Vegetation Base Map, Addendum A, lower left corner.

Independence Square

Addendum H. Trees Needing Critical Resources Protection Work

Location ** / Plant id# / Status	Botanical Name / Common Name	Condition comments / *Work needs*
18 - 60 present	Platanus occidentalis American Sycamore	Hazardous deadwood. Girdling root. Leaf insect present. *Remove hazardous deadwood.*
18 - 64 present	Quercus rubra Red Oak	Hazardous deadwood over sidewalk and road. *Remove hazardous deadwood.*
22 - 44 present	Platanus occidentalis American Sycamore	Crown reduction over statue. Split leader. *Cable split leader.*
23 - 40 present	Platanus occidentalis American Sycamore	Hazardous deadwood. Trunk leans 10 degrees to northwest. Insect damage to foliage. *Remove hazardous deadwood over walks.*
23 - 41 present	Platanus occidentalis American Sycamore	Watersprouts and some suckering from base. Hazardous deadwood in crown. *Remove hazardous deadwood from crown.*
23 - 69 present	Platanus occidentalis American Sycamore	Deadwood over walk. Minor anthracnose. Unidentified leaf damage. Suckers. *Remove hazardous deadwood over walk.*
23 - 76 present	Platanus occidentalis American Sycamore	Broken cable. Oozing trunk fissure. Suckers. Leaf insect. *Replace broken cable with through-rod between leaders. Install cable on lowest limb.*
23 - 84 present	Platanus occidentalis American Sycamore	Loose cable needs replacement with through-rod. Hanger. Bark ridge. Girdled root. Minor anthracnose - stippled foliage. *Replace loose cable with through-rod.*

* No shrubs were identified as needing critical resource protection work.
**Location refers to grounds plot numbers assigned by the park and identified on the Vegetation Base Map, Addendum A, lower left corner.

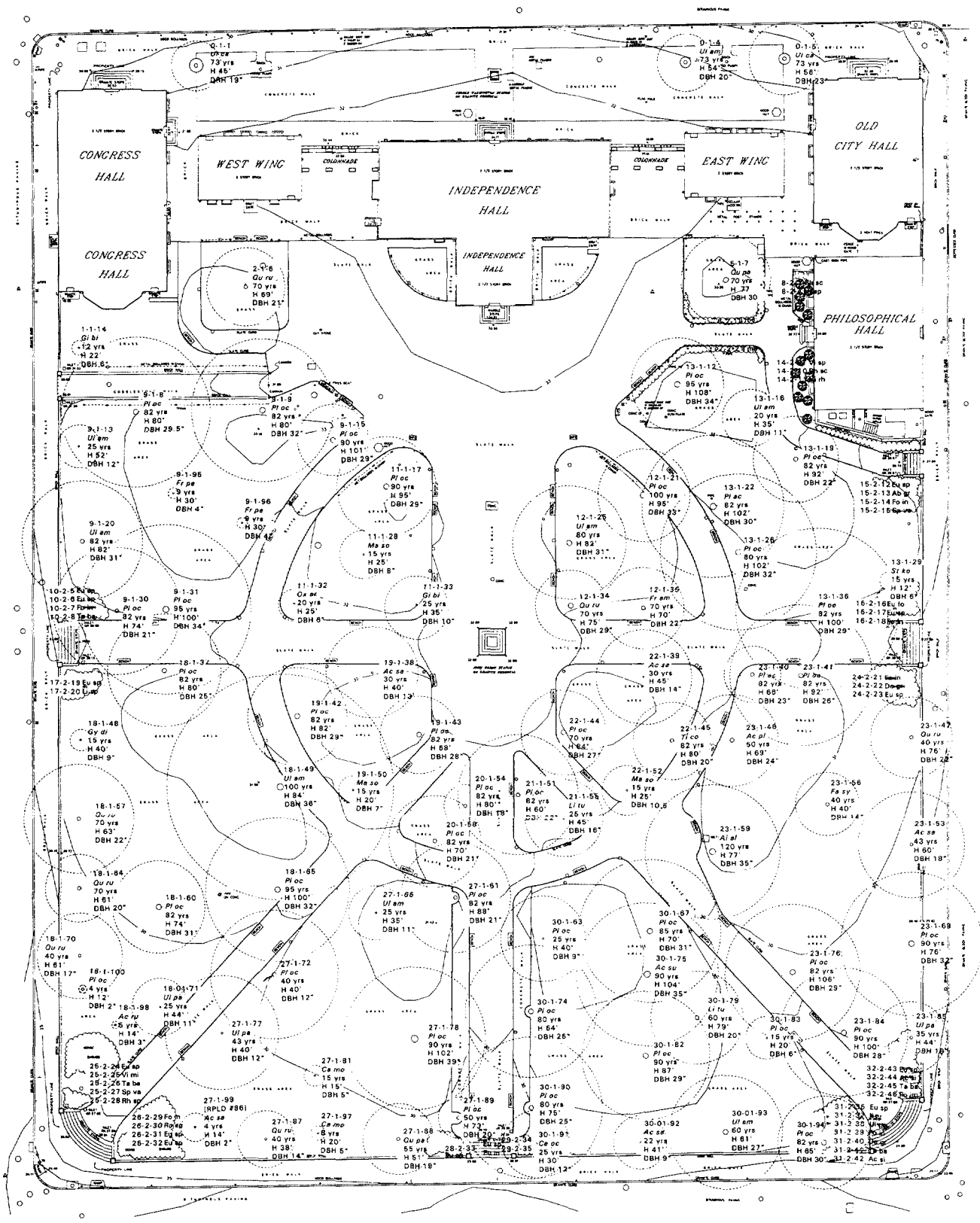
Independence Square

Addendum H. Trees Needing Critical Resources Protection Work

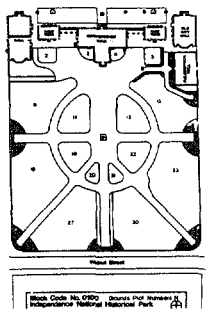
Location ** / Plant id# / Status	Botanical Name / Common Name	Condition comments / *Work needs*
30 - 67 present	Platanus occidentalis American Sycamore	Anthracnose insect sucking and skeletonizing foliage. Seam in trunk. Recent root flare damage. Hanger over walk is hazardous.
		Remove deadwood. Hanger over walk is hazardous.
30 - 75 present	Acer saccharinum Silver maple	Slime flux. Recent mower and root flare damage. Girdling with snags. Broken limbs and hangers. Broken cable between leaders.
		Remove hazardous limbs and hangers.
30 - 75 present	Acer saccharinum Silver maple	Slime flux. Recent mower and root flare damage. Girdling with snags. Broken limbs and hangers. Broken cable between leaders.
		Replace cabling between leaders.
30 - 79 present	Liriodendron tulipfera Tulip tree	Deadwood over walk. Poor root flare.
		Remove hazardous deadwood over walk.
30 - 82 present	Platanus occidentalis American Sycamore	Dead limbs and snags. Decay in branch cuts on trunk should be monitored. Some anthracnose. Insect damage to foliage.
		Remove hazardous dead limbs.

* No shrubs were identified as needing critical resource protection work.
**Location refers to grounds plot numbers assigned by the park and identified on the Vegetation Base Map, Addendum A, lower left corner.

VEGETATION BASE MAP



LOCATION PLOT KEY



Tree Species Key

Map Code	Botanical Name	Common Name
Ac pl	Acer platanoides	Norway Maple
Ac ru	Acer rubrum	Red Maple
Ac sa	Acer saccharum	Sugar Maple
Ac su	Acer saccharinum	Silver maple
Ae hi	Aesculus hippocastanum	European Horsechestnut
Ai al	Ailanthus altissima	Tree of Heaven
Ca mo	Castanea mollissima	Chinese Chestnut
Ce oc	Celtis occidentalis	Hackberry
Fa sy	Fagus sylvatica 'Asplenifolia'	Fernleaf Beech
Fr am	Fraxinus americana	White Ash
Fr pe	Fraxinus pennsylvanica	Green Ash 'Patmore'
Gi bi	Ginkgo bilobs	Ginkgo
Gy di	Gymnocladus dioicus	Kentucky Coffeetree
Li tu	Liriodendron tulipifera	Tulip Tree
Ma so	Magnolia soulangiana	Saucer Magnolia
Ox ar	Oxydendrum arboreum	Sourwood
Pl ac	Platanus x. acerifolia	London Plane Tree
Pl oc	Platanus occidentalis	American Sycamore
Qu ma	Quercus macrocarpa	Bur Oak
Qu pa	Quercus palustris	Pin Oak
Qu ru	Quercus rubra	Red Oak
St ko	Stewartia koreana	Korean Stewartia
Ti co	Tilia cordata	Littleleaf Linden
Ul am	Ulmus americana	American Elm
Ul ca	Ulmus campestris	English Elm
Ul pa	Ulmus parvifolia	Chinese Elm

Shrub Species Key

Map Code	Botanical Name	Common Name
Ab gr	Abelia grandiflora	Glossy Abelia
Ac si	Acanthopanax sieboldianus	Fiveleaf Aralia
De gr	Deutzia gracilis	Slender Deutzia
Eu fo	Euonymus fortunei	Wintercreeper Euonymus
Eu sp	Euonymus sp.	Euonymus
Fo in	Forsythia x intermedia	Forsythia
Il cr	Ilex crenata	Japanese Holly
Il me	Ilex x meserveae	China Girl Holly
Li sp	*Ligustrum sp.*	Privet
Rh sp	Rhododendron sp.	Azalea
Rh sc	Rhodotypos scandens	Black Jetbead
Ro sp	Rosa sp.	Rose
Sp va	Spirea x vanhouttei	Vanhoutte Spirea
Ta ba	Taxus baccata 'Repandens'	English Spreading Yew
Ul pa	Ulmus parvifolia	Chinese Elm
Vi mi	Vinca minor	Vinca
Vi rh	Viburnum rhytidophyllum	Leatherleaf Viburnum
Vi sp	*Viburnum sp.*	Viburnum

OLMSTED CENTER FOR LANDSCAPE PRESERVATION
NATIONAL PARK SERVICE

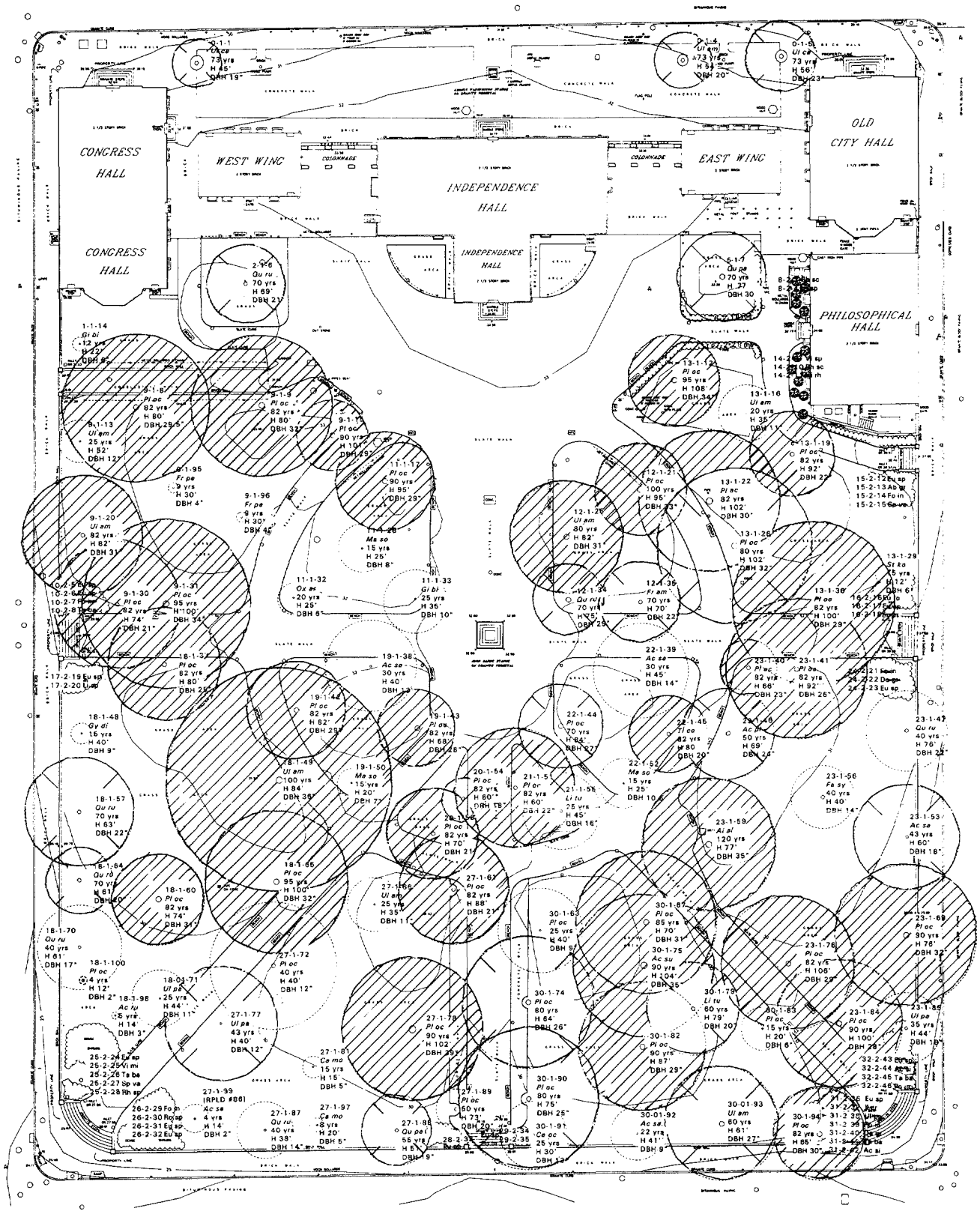
PROJECT: Woody Plant Inventory and Condition Assessment for Independence Square

Drawn by: KB 8/96
Checked: CP
Revised:

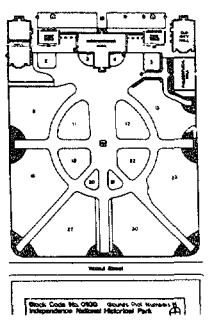
Drawing: Vegetation Base Map
Sheet: 1 of 3
Scale: 1" = 20'

ADDENDUM A. VEGETATION BASE MAP

TREE AGE MAP



LOCATION PLOT KEY



Tree Species Key

Map Code	Botanical Name	Common Name
Ac pl	Acer platanoides	Norway Maple
Ac ru	Acer rubrum	Red Maple
Ac sa	Acer saccharum	Sugar Maple
Ac su	Acer saccharinum	Silver maple
Ae hi	Aesculus hippocastanum	European Horsechestnut
Ai al	Ailanthus altissima	Tree of Heaven
Ca mo	Castanea mollissima	Chinese Chestnut
Ce oc	Celtis occidentalis	Hackberry
Fa sy	Fagus sylvatica 'Asplenifolia'	Fernleaf Beech
Fr am	Fraxinus americana	White Ash
Fr pe	Fraxinus pennsylvanica	Green Ash 'Patmore'
Gi bi	Ginkgo biloba	Ginkgo
Gy di	Gymnocladus dioicus	Kentucky Coffeetree
Li tu	Liriodendron tulipifera	Tulip Tree
Ma so	Magnolia soulangiana	Saucer Magnolia
Ox ar	Oxydendrum arboreum	Sourwood
Pl ac	Platanus x. acerifolia	London Plane Tree
Pl oc	Platanus occidentalis	American Sycamore
Qu ma	Quercus macrocarpa	Bur Oak
Qu pe	Quercus palustris	Pin Oak
Qu ru	Quercus rubra	Red Oak
St ko	Stewartia koreana	Korean Stewartia
Ti co	Tilia cordata	Littleleaf Linden
Ul am	Ulmus americana	American Elm
Ul ca	Ulmus campestris	English Elm
Ul pa	Ulmus parvifolia	Chinese Elm

Shrub Species Key

Map Code	Botanical Name	Common Name
Ab gr	Abelia grandiflora	Glossy Abelia
Ac si	Acanthopanax sieboldianus	Fiveleaf Aralia
De gr	Deutzia gracilis	Slender Deutzia
Eu fo	Euonymus fortunei	Wintercreeper Euonymus
Eu sp	Euonymus sp.	Euonymus
Fo in	Forsythia x intermedia	Forsythia
Il cr	Ilex crenata	Japanese Holly
Il me	Ilex x meserveae	China Girl Holly
Li sp	ligustrum sp.	Privet
Rh sp	Rhododendron sp.	Azalea
Rh sc	Rhodotypos scandens	Black Jetbead
Ro sp	Rosa sp.	Rose
Sp va	Spirea x vanhouttei	Vanhoutte Spirea
Ta ba	Taxus baccata 'Repandans'	English Spreading Yew
Ul pa	Ulmus parvifolia	Chinese Elm
Vi mi	Vinca minor	Vinca
Vi rh	Viburnum rhytidophyllum	Leatherleaf Viburnum
Vi sp	Viburnum sp.	Viburnum

Legend

Trees 1 - 42 years

Trees 43 - 81 years

Trees 82 + years

AGES PROVIDED ARE APPROXIMATE

0 20 40 60

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NATIONAL PARK SERVICE

PROJECT : Woody Plant Inventory and Condition Assessment for Independence Square

Drawn by: DM 9/96

Checked: CP - 11/97

Revised:

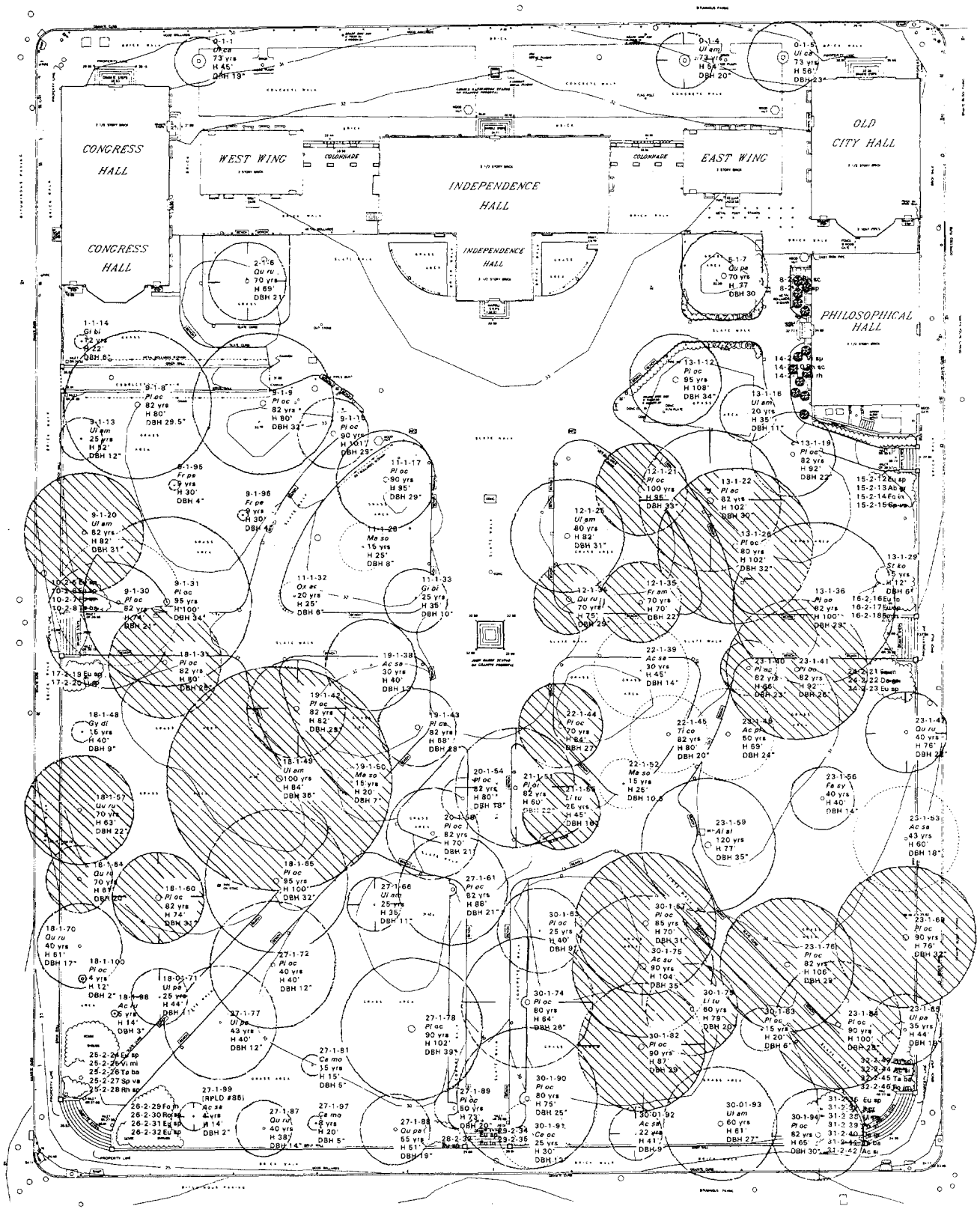
Drawing: Tree Age Map

Sheet: 2 of 3

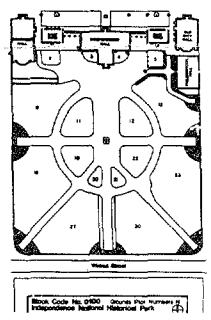
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ADDENDUM B. TREE AGE MAP

WORK and FURTHER DIAGNOSIS NEEDED



LOCATION PLOT KEY



Tree Species Key

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Ro sp	Rosa sp.	Rose
Sp va	Spirea x vanhouttei	Vanhoutte Spirea
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Ul pa	Ulmus parvifolia	Chinese Elm
Vi mi	Vinca minor	Vinca
Vi rh	Viburnum rhytidophyllum	Leatherleaf Viburnum
Vi sp	Viburnum sp.	Viburnum

Legend

- Resource Protection Needed
- Critical Resource Protection Needed
- Further Diagnosis Needed

0 40 20 60

OLMSTED CENTER FOR LANDSCAPE PRESERVATION

NATIONAL PARK SERVICE

PROJECT : Woody Plant Inventory and Condition Assessment for Independence Square

Drawn by: KB 8/96

Checked: CP

Revised:

Drawing: Work and Further Diagnosis Needed

Sheet: 3 of 3

Scale: 1" = 20'

ADDENDUM C. WORK AND FURTHER DIAGNOSIS

APPENDIX C: WALLS AND PIERS STRUCTURAL ENGINEERING REPORT

PURPOSE

The purpose of this trip was to investigate the masonry retaining walls and piers located around the perimeter of Independence Square. Although the walls are in excellent condition, most of the piers have moved away from the intersecting walls. This report will discuss findings and provide alternative courses of action which can be taken in the future.

FINDINGS

The masonry retaining walls are in excellent condition. They show little sign of any movement. They are still very straight and plumb. There is one location where the wall has a vertical crack the entire height of the wall. This crack appears to be related to thermal expansion and contraction or, possibly, settlement in the wall rather than to soil pressure. There are also full height, vertical cracks in the walls at several of the masonry piers. Also, the marble coping stones which sit on top of the walls have been displaced toward the street in a few locations.

The masonry piers, which are located at the ends of the walls at the park entry steps, are the biggest problem. All but 2 of the 14 piers have been gradually rotating and/or moving outward away from the abutting walls. Most of the piers which are out of plumb are out about 1-inch. One pier, located at the middle entrance on Walnut St., is about 2-1/4 inches out of plumb.

Because of this movement, there are gaps between the piers and the abutting walls where the piers have pulled away from the wall. In the worst case, the gaps are about 1-1/2 inches wide. At some time in the past, the gaps were patched with mortar but the walls have since pulled away even further. At some locations, the movement in the pier has caused the abutting wall to crack. There has also been some cracking of the brick at the base of the piers.

During the site investigation we excavated down to the bottom of the wall in one location and to the bottom of one of the piers at another location. from these excavations, we were able to verify that the wall and pier construction match the original construction drawings. The walls have a cinder drainage fill along the bottom 2 feet but no drainage tile. Because there is no drain tile, the weep holes along the bottom of the wall do not provide any drainage.

The wall and pier footings are concrete pads which bear on an old stone footing which was in place before the present wall was built. The pier footings are only slightly wider than the base of the pier itself. The calculated weight of the pier is approximately 4,200 pounds whereas the wall weighs in the neighborhood of 600 pounds per foot. The soil pressure from the pier is about 1,100 psf which is about double the soil pressure from the wall.

There are most likely three things contributing to the movement at the piers. First, because of the weight of the piers, it is possible that they are undergoing gradual settlement. This stands to reason given that the soil in the area is generally clay. The properties of clay will promote slow, gradual settlement. Also, the stone foundation beneath the piers may be gradually deteriorating or may not be centered under the pier. Cracks in some of the walls along the stairways appear to be caused by the rotating piers actually lifting the end of the wall upward.

Secondly, because the piers are not tied to the walls with reinforcement, water which gets into the gap between the wall and the pier will freeze and push the pier away from the wall. This problem actually may have been worsened by placement of the rigid, mortar repair in the gaps. The displaced marble coping has most likely moved because of ice in the joint between the coping and the wall.

Finally, because there are no expansion joints in the long walls, thermal expansion and contraction probably contribute to movement in the piers. This movement, however, would effect the wall in the direction of the long perimeter walls, not the short walls along the stairways. Thermal expansion is the most likely cause of the vertical cracks in the long walls.

RECOMMENDATIONS

Because of the good condition of the walls, there is no immediate action that is required for their structural integrity. The cracks in the walls could be sealed with an elastic sealant to prevent water from causing ant further damage. Because the cracks are probably related to thermal expansion, a rigid mortar patch is not recommended. The marble coping stones can be moved back into position however they will continue to move unless they are anchored to the walls.

The piers are not in immediate danger of failure. Given the apparent rate of movement, it will be some time before they are. It is possible, however, that as the piers lean out further, the rate of movement could increase. Given the results of the investigation, there are three alternatives to be considered.

Moisture Protection

This alternative would require that the gaps between the piers and walls be sealed with an elastomeric sealant.

Advantages:

- This alternative would keep moisture out of the voids and would therefore prevent movement caused by ice pressure
- It would be the least intrusive into the historical fabric and the surrounding environment
- It could be done by park day labor
- It would be much less expensive than the other alternatives

Disadvantages:

- If movement is related to foundation or settlement problems, this alternative would not completely solve the problem
- The gaps and cracks would still remain
- Applying sealant into very large (1-1/2 inch) voids may be difficult

Place a New Footing

This would require dismantling the pier, placing the footing, and then rebuilding the pier. If the stone footings are found to be inadequate, they would either have to be stabilized or removed in the area of the new footing.

Advantages:

- Would allow placement of the most efficient footing
- Would provide the simplest means of closing the gap between the walls and the piers
- Would allow installation of ties from the piers to the walls
- Would allow the repair of damaged brick
- This would be simpler and less costly than alternative 3.

Disadvantages:

- Would disturb the historical fabric
- Could possibly damage some brick

Underpinning

It might be possible to stabilize the stone foundation, underpin the piers, and re-plumb them.

Advantages:

- Would have the least effect on the historic fabric

Disadvantages:

Would be difficult because of the intersecting walls and steps. The underpinning would have to be done from the front of the pier

- It would be difficult to support the pier while excavating underneath it
- It would be difficult to assess the subgrade conditions
- It would be difficult to move the pier back into place against the existing walls
- This would be the most costly alternative.

Because the piers are in no immediate danger of failure, it is recommended that Alternative 1 be implemented at this time. If there is excessive movement in the piers after the voids are sealed, the sealant will eventually pull apart from the wall or the pier. If this happens, one of the other alternatives could then be implemented. It is also recommended that the cracks in the brick walls and piers be sealed. This will prevent further deterioration of the brick at these locations.

DEPARTMENT OF PUBLIC WORKS

BUREAU OF CITY PROPERTY

CITY HALL, PHILADELPHIA

REPLY SHOULD REFER TO

GEORGE E. DATESMAN,
DIRECTOR, DEP'T PUBLIC WORKS

FRANK J. CUMMISKEY,
CHIEF OF BUREAU

October 18, 1916.

Mr. F. J. Cummiskey, Chief,
Bureau of City Property.

Dear Sir:-

I am in receipt of a letter from Calvin Gilbert, Gettysburg, P., in which he advises me of the cost of the Cast Iron Cannon, a fac simile of those used by the Continental army during the Revolution. These pieces are of two sizes and the Cannon proper, such as would be utilized at the head of the Drive-way, leading into Independence Square are:-

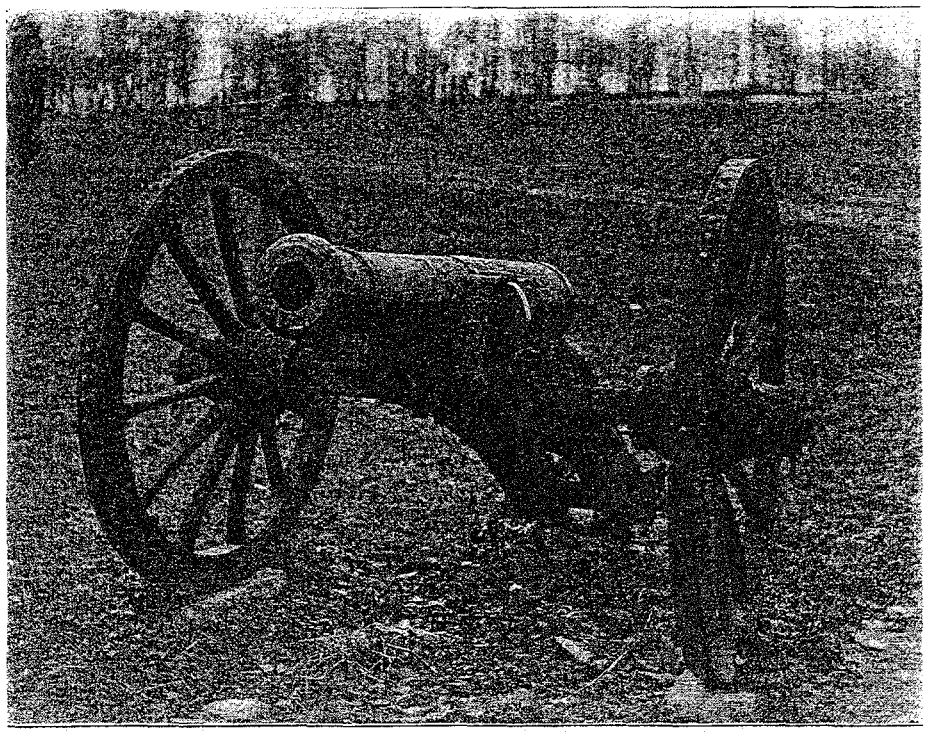
1. 3 pounder 40" long over all measurements..$20.. each
2. 6 pounder 5' long over all measurements.. 25. "

I enclose a cut illustrating the type of Cannon mounted on a Carriage. If the 3 pounder would be used, I believe it would be necessary to insert an iron pipe in the muzzle owing to its length, thus giving it stability where placed in the ground at the head of the Drive, while the 6 pounder could be sunk in place and held without any additional supports.

Hoping this information is what the A. I. A. desire, I am

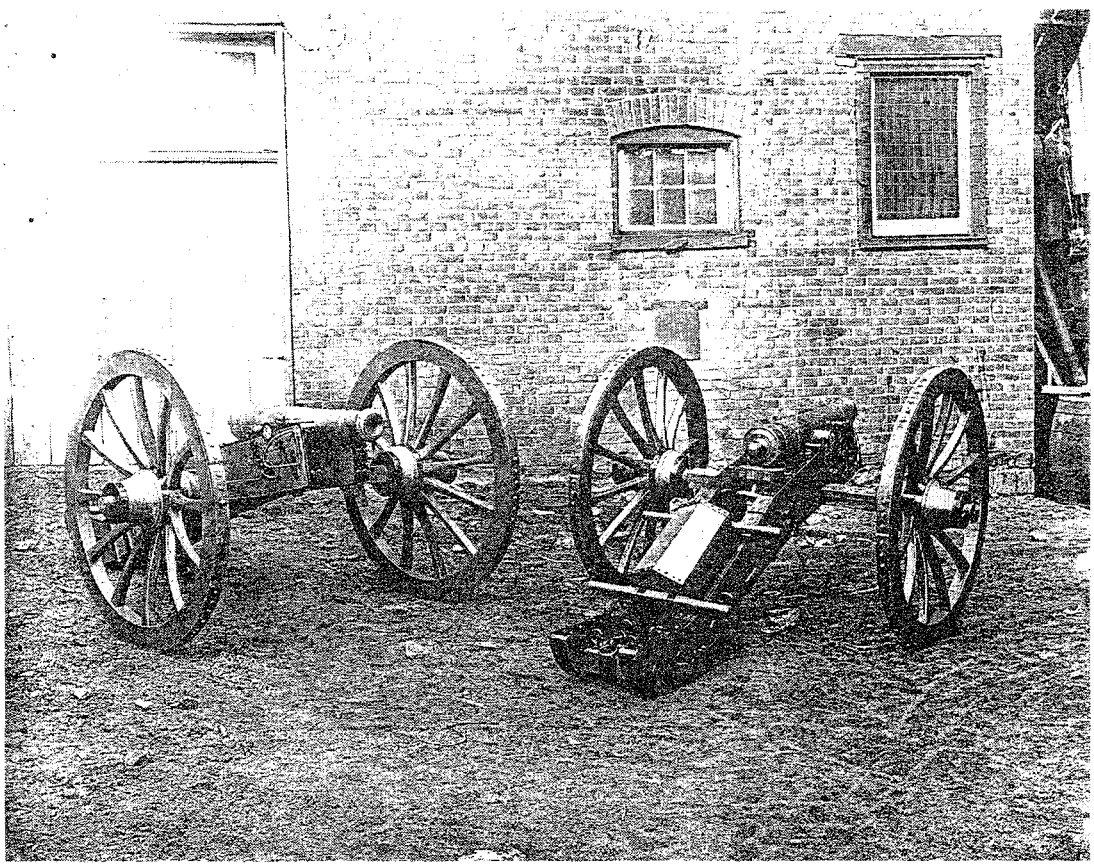
Yours very truly,

FJ:CLS. Curator, Independence Hall.



REPRODUCTION OF CANNON

USED BY CONTINENTAL ARMY DURING WINTER OF 1777-78



DEPARTMENT OF PUBLIC WORKS

BUREAU OF CITY PROPERTY

CITY HALL, PHILADELPHIA

REPLY SHOULD REFER TO

GEORGE E. DATESMAN,
DIRECTOR, DEP'T PUBLIC WORKS

FRANK J. CUMMISKEY,
CHIEF OF BUREAU

October 19, 1916.

Mr. Horace Wells Sellers, President,
Phila. Chapter, A. I. A.
Stephen Girard Building,
Philadelphia, Pa.

My dear Mr. Sellers:-

I am attaching a copy of letter + 2 illustrations received from Mr. Jordan, in reference to the cost of Cast Iron Cannon, which you propose using at the entrance to Independence Square on Sixth Street.

I feel that the prices are very moderate and that it could be added on Markland's contract, which might be the proper solution.

Yours very truly,

Chief of Bureau.

FJC:CLW.
enc.
c/c-WH.

October 25, 1916.

Mr. Frank J. Cumminskey, Chief,

Bureau of City Property,

City Hall, Philadelphia.

Dear Mr. Cumminskey:

Referring to the action of our Committee at a meeting held on Monday at Congress Hall, it was recommended in reply to your letter of the 19th inst. that four 6 pounder cannons 5 Ft. long overall at $25.00 each would be most suitable to use as wheel guards on the driveway leading from the Sixth Street entrance; it being understood that these cannons would be placed with the muzzle bedded in the ground to a suitable depth.

It is understood as stated in the correspondence that these cannons will be a fac simile of those used by the Continental Army during the Revolution and be made by Calvin Gilbert of Gettsburg and that the work will be ordered under the allowance for extra work in contract of Markland for improvements to the Square.

If you desire the Committee to place this order please advise me

Yours very truly,

HWS/L

President.

DEPARTMENT OF PUBLIC WORKS

BUREAU OF CITY PROPERTY

CITY HALL, PHILADELPHIA

REPLY SHOULD REFER TO

October 26, 1916.

GEORGE E. DATESMAN,
DIRECTOR, DEP'T PUBLIC WORKS

FRANK J. CUMMISKEY
CHIEF OF BUREAU

Mr. Horace Wells Sellers, President,
Phila. Chapter, A. I. A.
Stephen Girard Building,
Philadelphia, Pa.

My dear Mr. Sellers:-

Your several communications of October 25th received, and I thank you very much for your kind consideration in the matters mentioned, and trust the Sub-Committee will report as soon as possible on the specifications for wood and brick flooring and lightning rod equipment for Independence Hall.

With regard to the four 6 pound cannon, would it not be well to have F. S. Markland do this work, as he has the contract for the completion of the work in the amount of $12000. of which there is now available for extras, $857.00. Will you be kind enough to have Markland submit an estimate recommended by you, so that we can secure the director's approval, as this appears to be the quickest way in which to obtain the desired result.

Yours very truly,

Chief of ~~Bureau.~~

FJC:CLW.
c/c-WJ

October 27, 1916.

Mr. Thomas M. Kellogg,

1012 Walnut Street,

Philadelphia, Pa.

Dear Kellogg:

I enclose herewith a copy of a letter I wrote to Mr. Cummiskey recently in regard to the proposal for cannons to use on the Sixth Street entrance roadway at Independence Square. I have now a letter from Mr. Cummiskey in reply reading as follows:-

"With regard to the four 6 pound cannon, would it not be well to have F. S. Markland do this work, as he has the contract for the completion of the work in the amount of $12000. of which there is now available for extras, $857.00. Will you be kind enough to have Markland submit an estimate recommended by you, so that we can secure the director's approval, as this appears to be the quickest way in which to obtain the desired result."

Markland's estimate would have to include the excavation necessary to set these cannons to the required depth and for the repairs to pavement around them. As you will doubtless see him shortly in regard to his other work at the Square you might ask him for this estimate including the cost of the cannons and submit same to Mr. Cummiskey for the Director's approval.

Yours very truly,

HWS/L

(C O P Y)

IMPROVEMENTS - INDEPENDENCE SQUARE.

1012 Walnut Street,
Philadelphia, October 30, 1816.

Mr. Francis S. Marklend,
1500 Sansom Street,
Philadelphia, Pa.

Dear Sir:-

I am requested by the Commistee in charge of Improvements to Independence Square to obtain from you a proposal for furnishing and setting at each of the four corners of the driveway at Sixth Street entrance, a six pound cannon, 5 feet long, to act as a wheel guard. Each of the four cannons to be set on end and thoroughly bedded in cement concrete to proper depth as directed, and painted as specified for surrounding iron posts. Any damage done to surrounding work in setting the cannon to be made good to the satisfaction of the Committee.

These cannons are to be a fac simile of those used by the Continental Army during the Revolutionary War and made by Calvin Gilbert of Gettysburg, Pa., and I understand that his price is $35.00 for each cannon ordered, but which you must verify.

Kindly send me your proposal on the above basis as soon as possible, stating also the time you will require to complete the work.

Yours truly,
(Sgd.) Thomas M. Kellogg
Architect.

(C O P Y)

1012 Walnut Street,
Philadelphia, November 15, 1916.

IMPROVEMENTS - INDEPENDENCE SQUARE.

Chief of the Bureau of City Property,

City Hall, Philadelphia.

Dear Sir:-

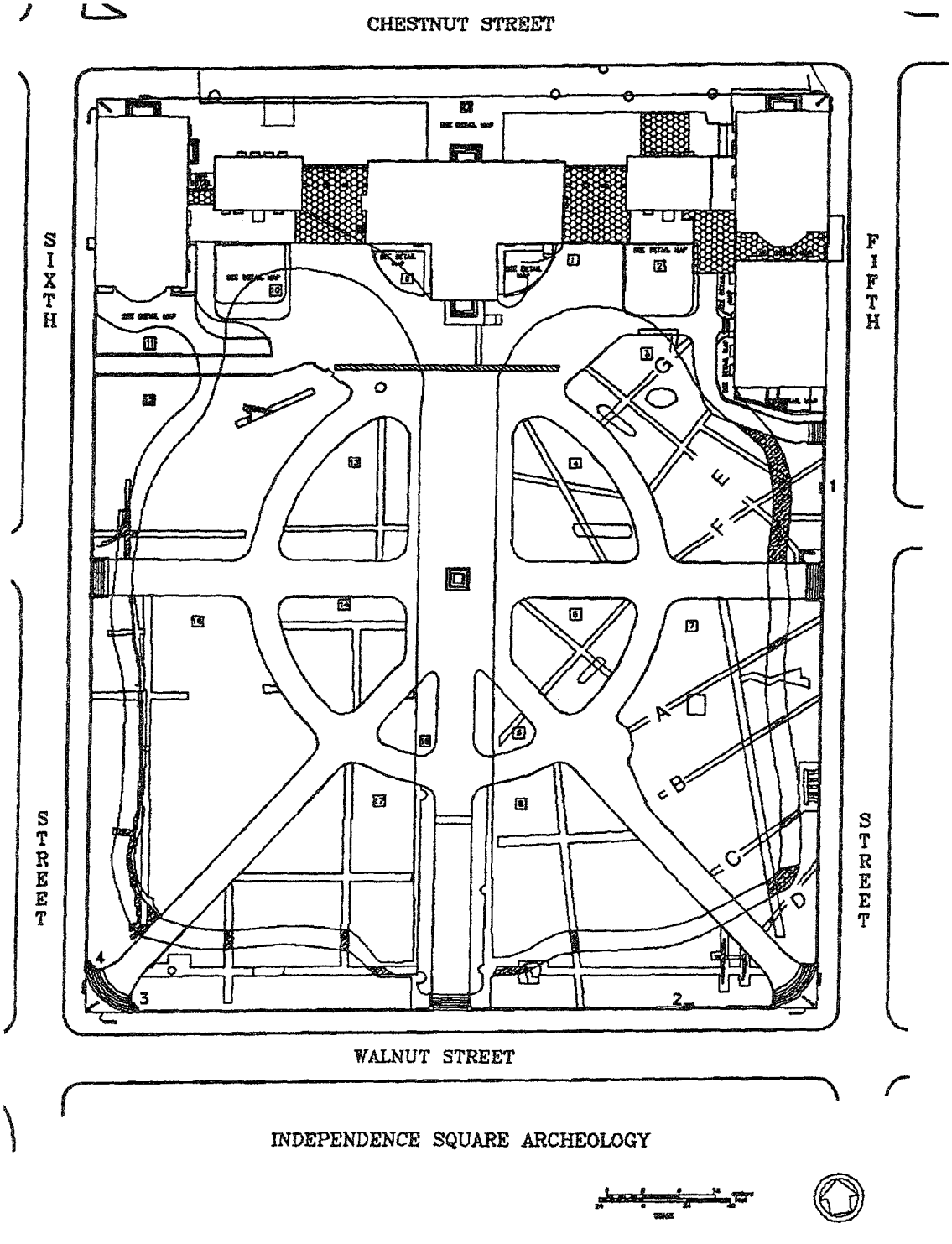
With reference to Mr. Horace Wells Sellers' letter to you dated October 25th, 1916, recommending the placing of four cannons at the 6th Street driveway entrance to Independence Square to form suitable wheel guards, and in accordance with your reply thereto, I wrote Mr. Francis S. Markland under date of October 30th, 1916, requesting him to submit a proposal for furnishing and setting these cannon as an addition to his present contract. A copy of this letter specifying in detail the work required was forwarded to you, and Mr. Markland's proposal, in amount $384.00, has since been received and approved by our Committee, recommending the acceptance of the same as an addition to the contract.

I therefore enclose herewith, in triplicate, a Special Order for the work, together with the contractor's proposal, and request that the Order be duly approved by the Director of Public Works, a copy of same be issued to Mr. Markland, and that I be notified of the action of your department.

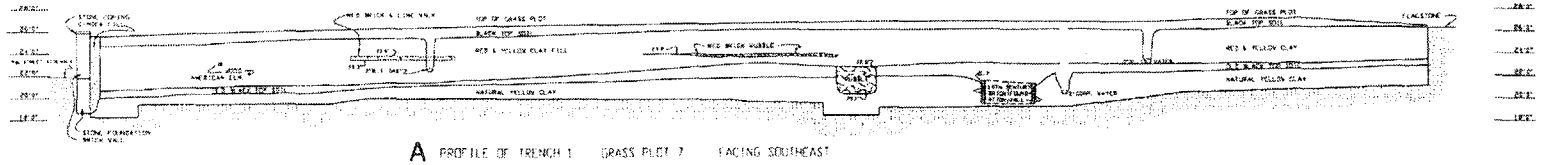
Very respectfully,
(Sgd.) Thomas M. Kellogg.

Architect.

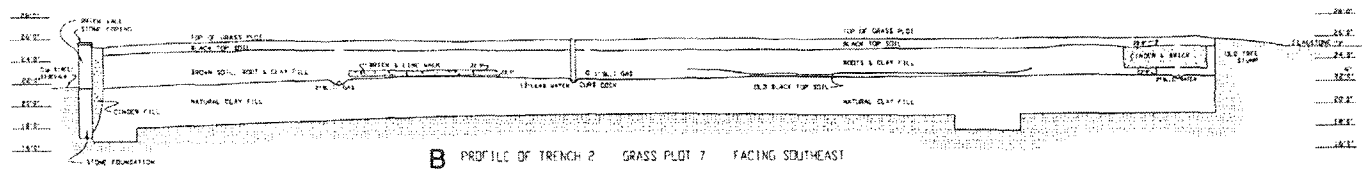
APPENDIX E: ARCHEOLOGICAL TRANSECTS



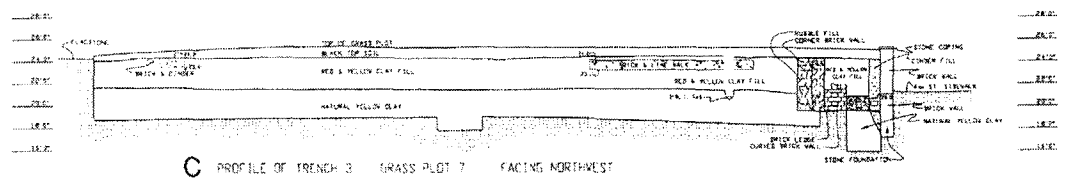
INDEPENDENCE SQUARE ARCHEOLOGY



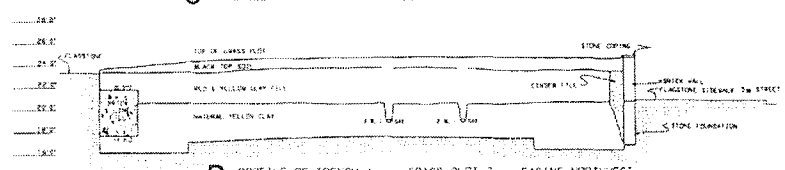
A PROFILE OF TRENCH 1 GRASS PLOT 7 FACING SOUTHEAST



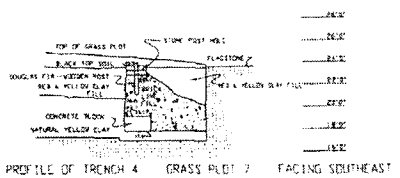
B PROFILE OF TRENCH 2 GRASS PLOT 7 FACING SOUTHEAST



C PROFILE OF TRENCH 3 GRASS PLOT 7 FACING NORTHWEST



D PROFILE OF TRENCH 4 GRASS PLOT 7 FACING NORTHWEST



PROFILE OF TRENCH 4 GRASS PLOT 7 FACING SOUTHEAST

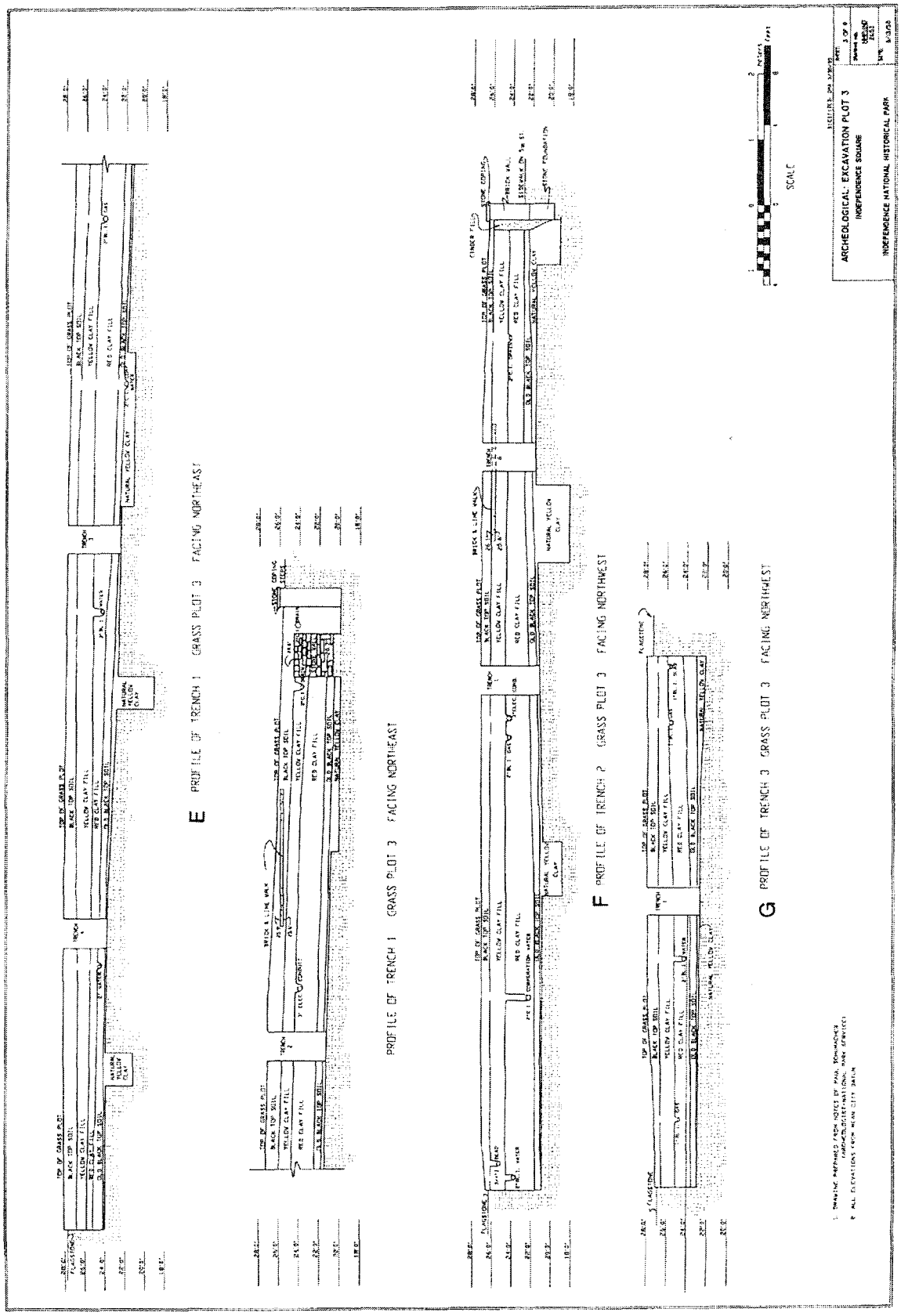


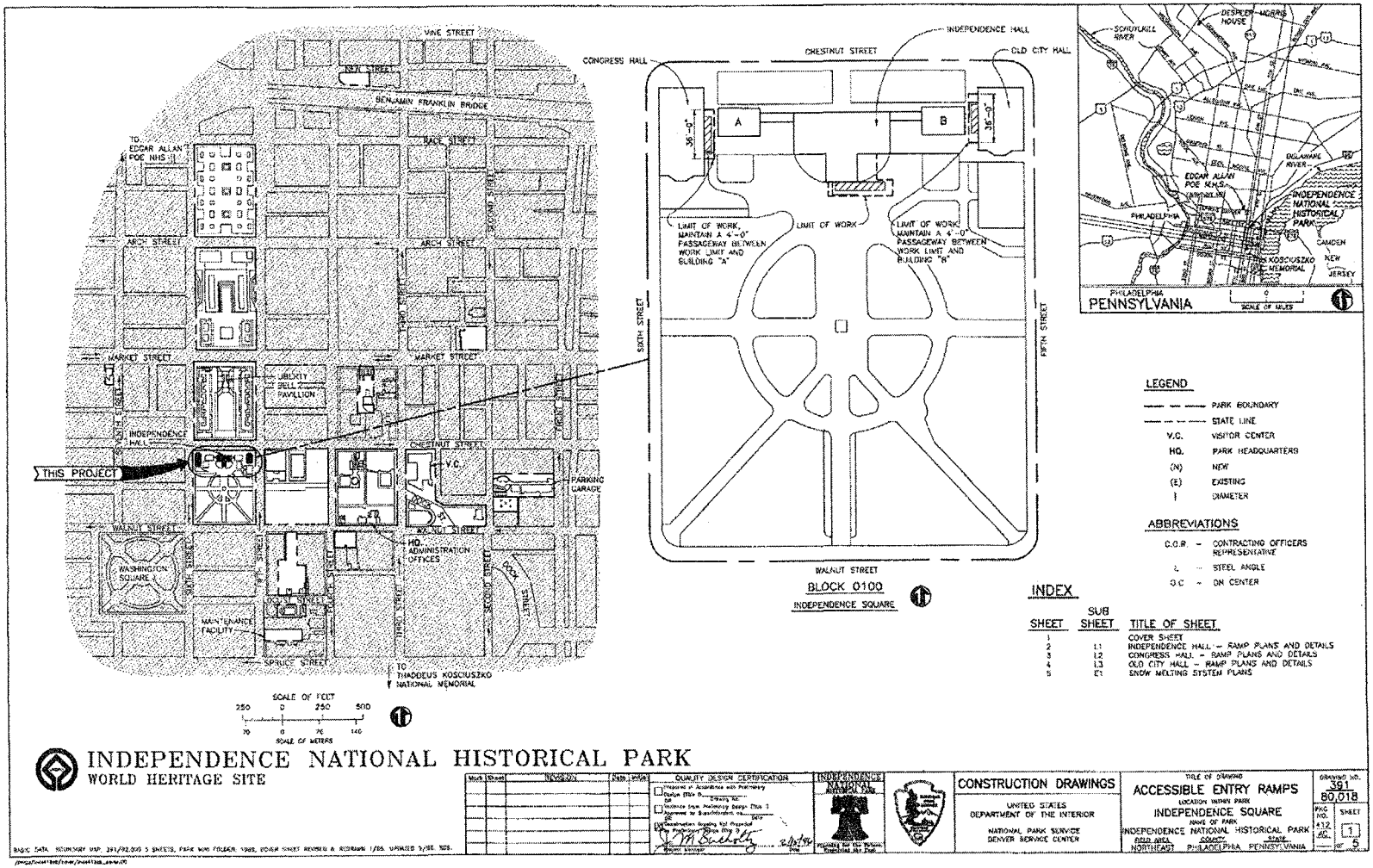
SCALE

1. DRAWING PREPARED FROM NOTES BY PAUL SCHUMACHER, ARCHEOLOGIST-NATIONAL PARK SERVICES
2. ALL ELEVATIONS FROM MEAN CITY DATUM

ARCHEOLOGICAL EXCAVATION - PLOT 7
INDEPENDENCE SQUARE
INDEPENDENCE NATIONAL HISTORICAL PARK

DRAWING NO. 122-20 2453
DATE 6/13/56


E PROFILE OF TRENCH 1 GRASS PLOT 3 FACING NORTHEAST
PROFILE OF TRENCH 1 GRASS PLOT 3 FACING NORTHEAST
F PROFILE OF TRENCH 2 GRASS PLOT 3 FACING NORTHWEST
G PROFILE OF TRENCH 3 GRASS PLOT 3 FACING NORTHWEST
SCALE
ARCHEOLOGICAL EXCAVATION PLOT 3
INDEPENDENCE SQUARE
INDEPENDENCE NATIONAL HISTORICAL PARK



LEGEND

— — —	PARK BOUNDARY
— · — · —	STATE LINE
V.C.	VISITOR CENTER
HQ.	PARK HEADQUARTERS
(N)	NEW
(E)	EXISTING
∅	DIAMETER

ABBREVIATIONS

C.O.R. –	CONTRACTING OFFICERS REPRESENTATIVE
∠ –	STEEL ANGLE
O.C. –	ON CENTER

INDEX

SHEET	SUB SHEET	TITLE OF SHEET
1		COVER SHEET
2	L1	INDEPENDENCE HALL – RAMP PLANS AND DETAILS
3	L2	CONGRESS HALL – RAMP PLANS AND DETAILS
4	L3	OLD CITY HALL – RAMP PLANS AND DETAILS
5	E1	SNOW MELTING SYSTEM PLANS

INDEPENDENCE NATIONAL HISTORICAL PARK
WORLD HERITAGE SITE

BASIC DATA: BOUNDARY MAP, 391/82,009 5 SHEETS, PARK MAP FOLDER 1988, EDAR STREET REVISED & REDRAWN 1/88, UPDATED 3/88, NPS.

Mark	Sheet	Revisions	Date	Initial

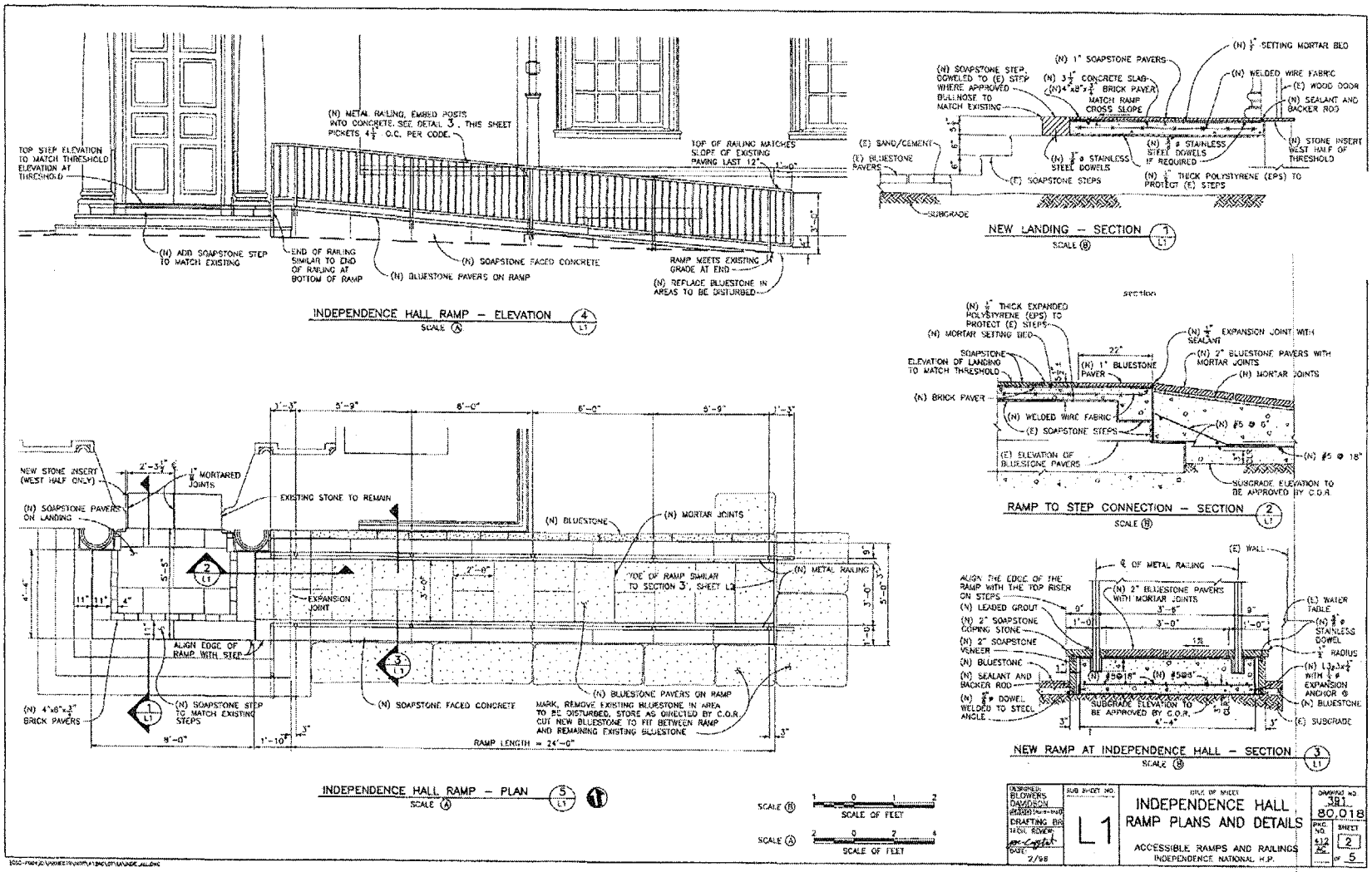
QUALITY DESIGN CERTIFICATION
Proposed in Accordance with Preliminary Design Item 0
OR
Drawing No.
Variance from Preliminary Design Item 0
Approved by Superintendent on
OR
Date
Construction Drawing Not Prepared
Preliminary Design Item 0
Project Manager
Date

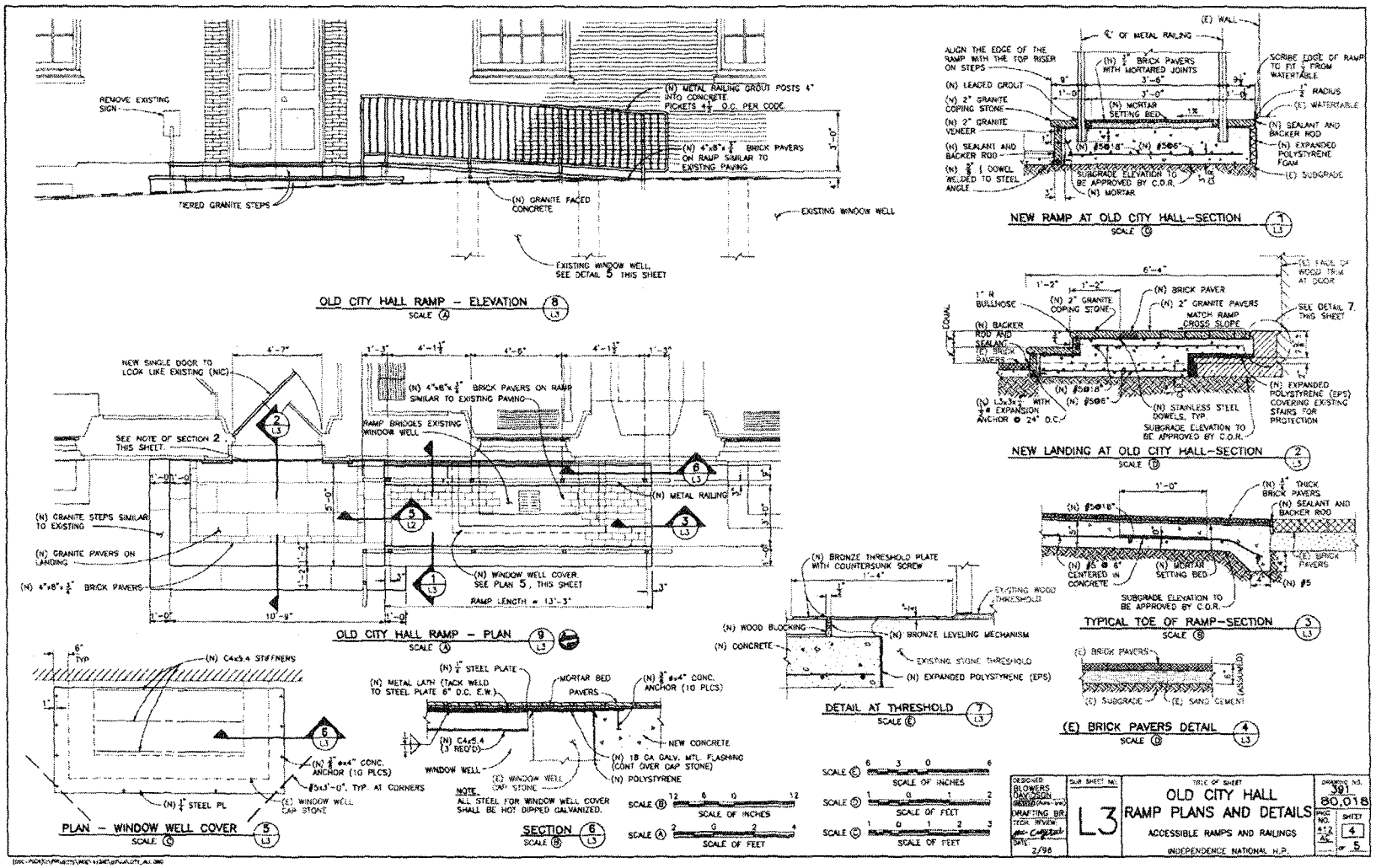
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Pennsylvania
Planning Not Part Project Engineering Not Appl.

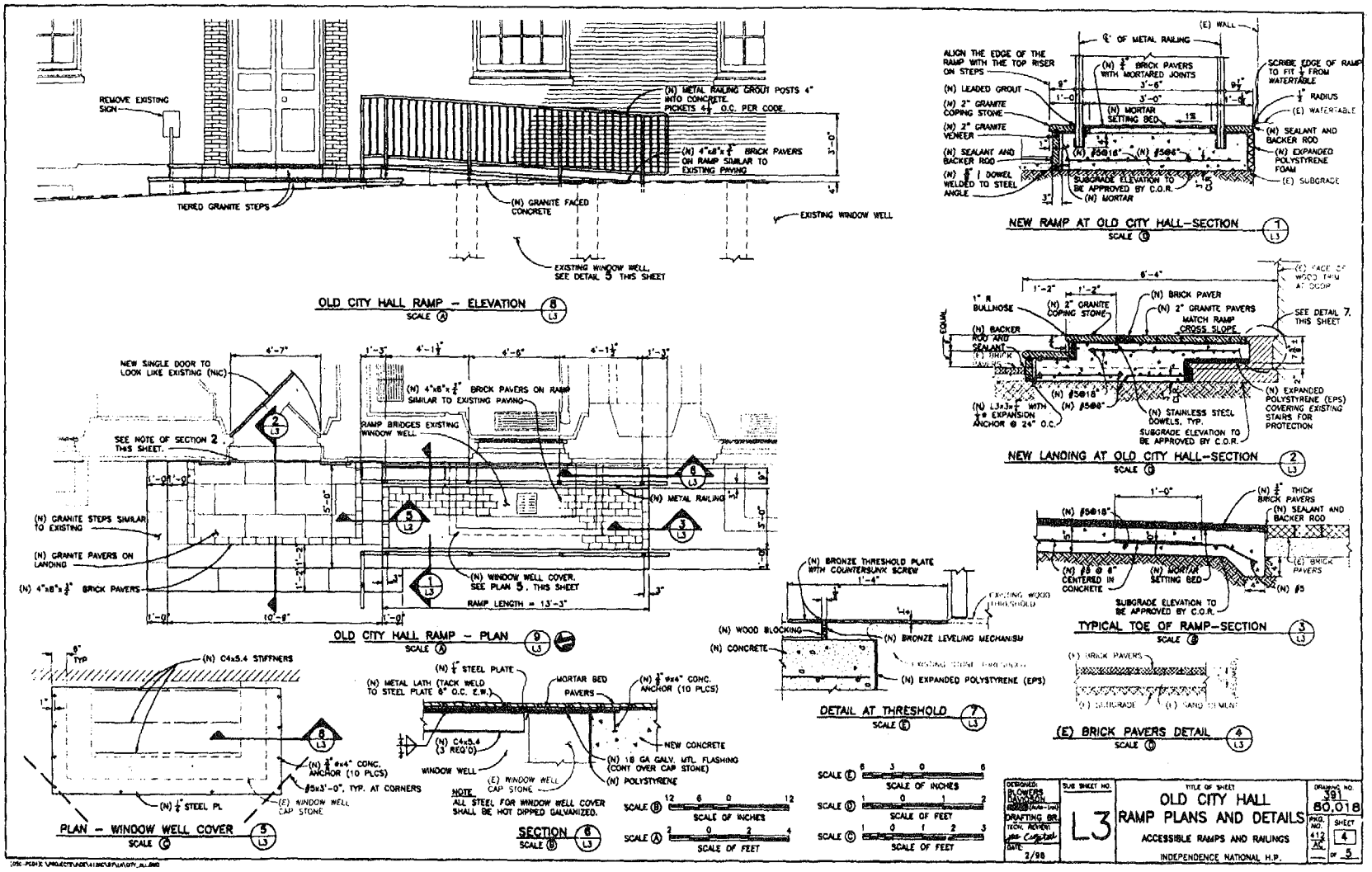
CONSTRUCTION DRAWINGS
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
DENVER SERVICE CENTER

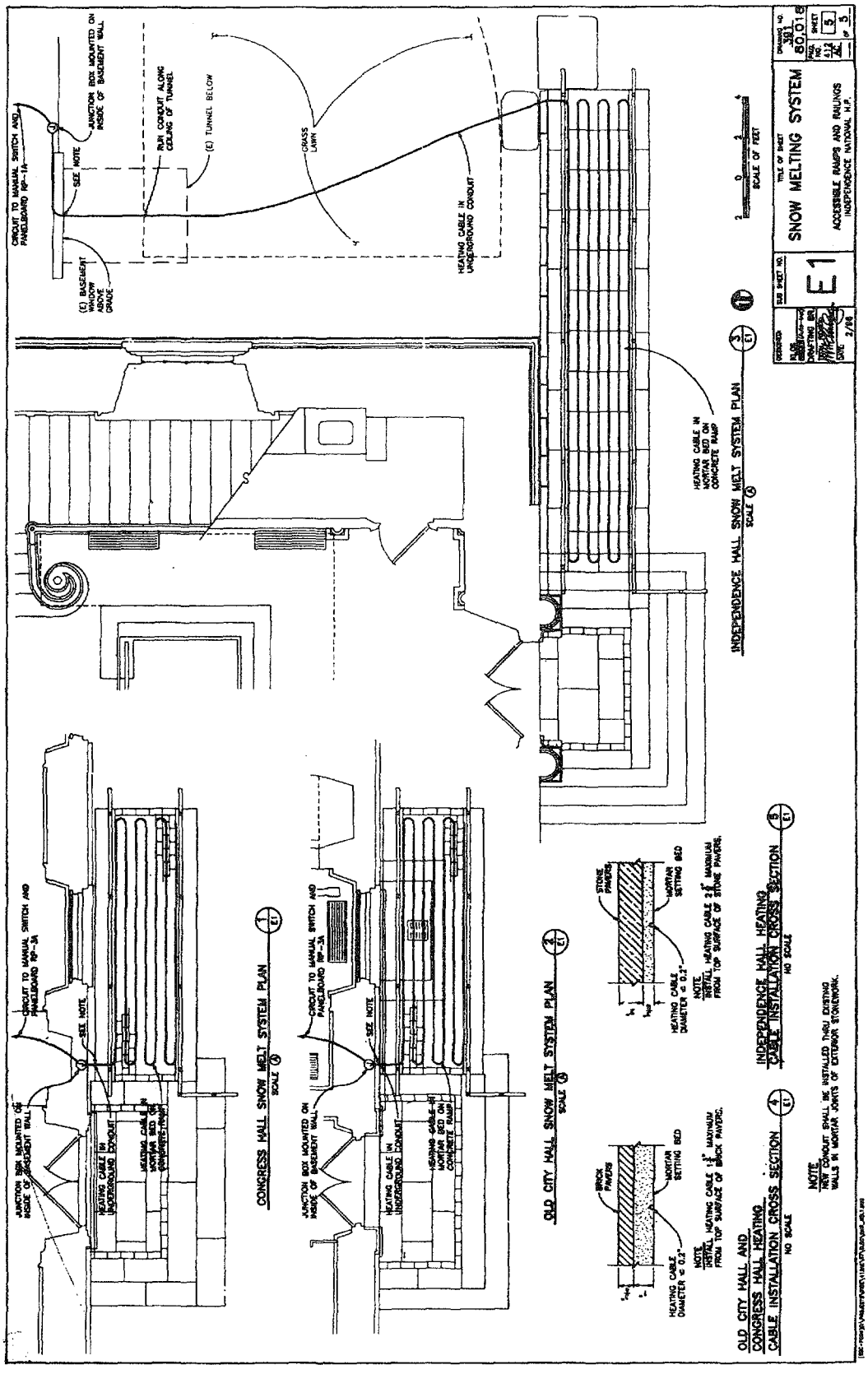
TITLE OF DRAWING
ACCESSIBLE ENTRY RAMPS
LOCATION WITHIN PARK
INDEPENDENCE SQUARE
NAME OF PARK
INDEPENDENCE NATIONAL HISTORICAL PARK
FIELD AREA: NORTHEAST
COUNTY: PHILADELPHIA
STATE: PENNSYLVANIA

DRAWING NO. 391 80,018
PKG NO. 412
AC. NO.
SHEET 1 OF 5

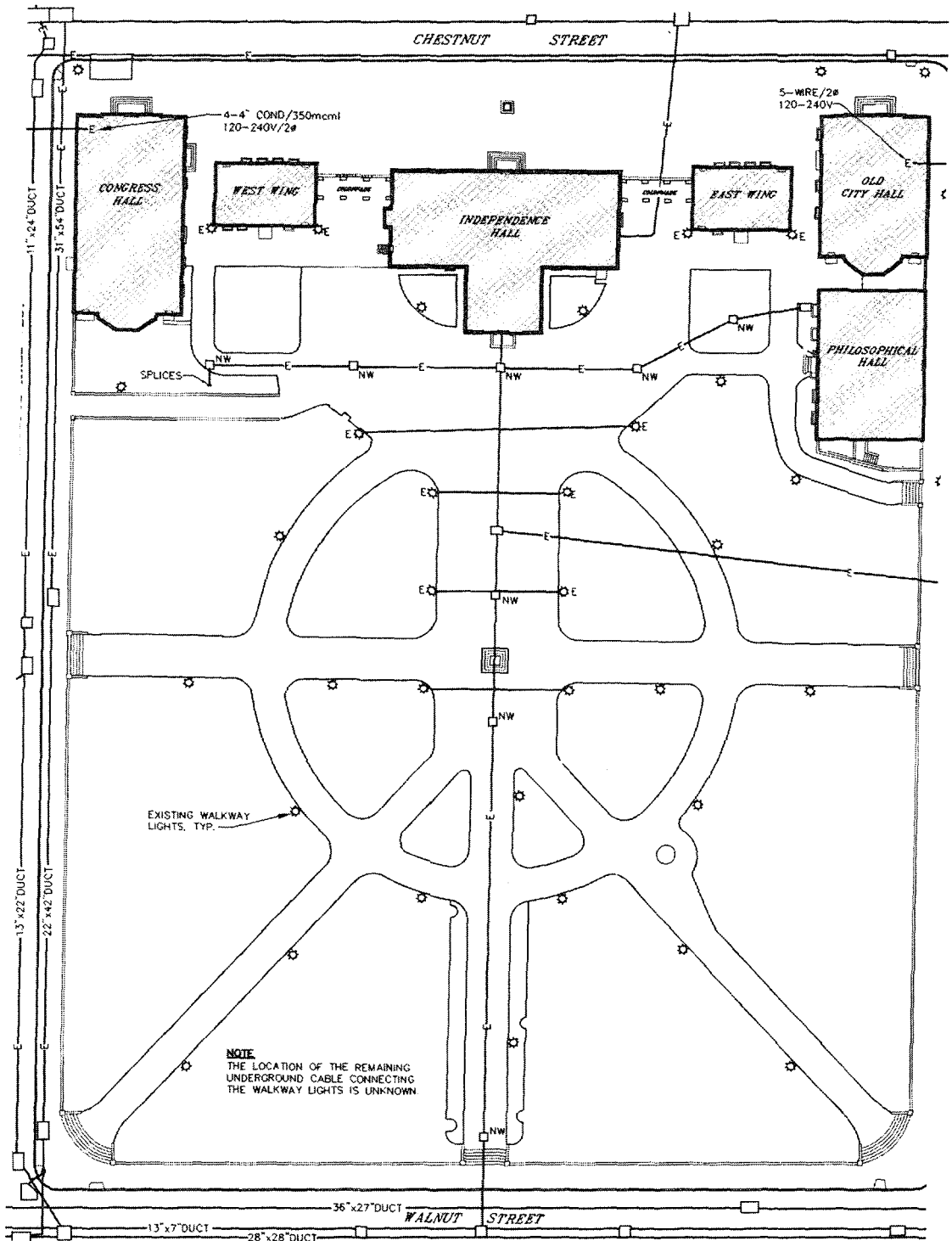

(N) METAL RAILING, EMBED POSTS INTO CONCRETE. SEE DETAIL 3, THIS SHEET
PICKETS 4½" O.C. PER CODE.
TOP STEP ELEVATION TO MATCH THRESHOLD ELEVATION AT THRESHOLD
TOP OF RAILING MATCHES SLOPE OF EXISTING PAVING LAST 12"
(N) ADD SOAPSTONE STEP TO MATCH EXISTING
END OF RAILING SIMILAR TO END OF RAILING AT BOTTOM OF RAMP
(N) BLUESTONE PAVERS ON RAMP
(N) SOAPSTONE FACED CONCRETE
RAMP MEETS EXISTING GRADE AT END
(N) REPLACE BLUESTONE IN AREAS TO BE DISTURBED
INDEPENDENCE HALL RAMP – ELEVATION
SCALE A
(N) SOAPSTONE STEP, DOWELED TO (E) STEP WHERE APPROVED
BULLNOSE TO MATCH EXISTING
(N) 1" SOAPSTONE PAVERS
(N) 3½" CONCRETE SLAB
(N) 4"x8"x2¼" BRICK PAVER MATCH RAMP CROSS SLOPE
(N) ½" SETTING MORTAR BED
(N) WELDED WIRE FABRIC
(E) WOOD DOOR
(N) SEALANT AND BACKER ROD
(N) STONE INSERT WEST HALF OF THRESHOLD
(E) SAND/CEMENT
(E) BLUESTONE PAVERS
(N) ¾" ø STAINLESS STEEL DOWELS
(N) ¾" ø STAINLESS STEEL DOWELS IF REQUIRED
(E) SOAPSTONE STEPS
(N) ½" THICK POLYSTYRENE (EPS) TO PROTECT (E) STEPS
SUBGRADE
NEW LANDING – SECTION
SCALE B
NEW STONE INSERT (WEST HALF ONLY)
2'-3½"
¼" MORTARED JOINTS
EXISTING STONE TO REMAIN
(N) SOAPSTONE PAVERS ON LANDING
(N) BLUESTONE
(N) MORTAR JOINTS
EDGE OF RAMP SIMILAR TO SECTION 3, SHEET L2
(N) METAL RAILING
EXPANSION JOINT
ALIGN EDGE OF RAMP WITH STEP
(N) 4"x8"x2¼" BRICK PAVERS
(N) SOAPSTONE STEP TO MATCH EXISTING STEPS
(N) SOAPSTONE FACED CONCRETE
(N) BLUESTONE PAVERS ON RAMP
MARK, REMOVE EXISTING BLUESTONE IN AREA TO BE DISTURBED, STORE AS DIRECTED BY C.O.R. CUT NEW BLUESTONE TO FIT BETWEEN RAMP AND REMAINING EXISTING BLUESTONE
8'-0"
1'-10"
RAMP LENGTH = 24'-0"
INDEPENDENCE HALL RAMP – PLAN
SCALE A
(N) ½" THICK EXPANDED POLYSTYRENE (EPS) TO PROTECT (E) STEPS
(N) MORTAR SETTING BED
SOAPSTONE ELEVATION OF LANDING TO MATCH THRESHOLD
(N) BRICK PAVER
(N) 1" BLUESTONE PAVER
(N) ½" EXPANSION JOINT WITH SEALANT
(N) 2" BLUESTONE PAVERS WITH MORTAR JOINTS
(N) MORTAR JOINTS
(N) WELDED WIRE FABRIC
(N) #5 @ 6"
(E) SOAPSTONE STEPS
(E) ELEVATION OF BLUESTONE PAVERS
(N) #5 @ 18"
SUBGRADE ELEVATION TO BE APPROVED BY C.O.R.
RAMP TO STEP CONNECTION – SECTION
SCALE B
(E) WALL
℄ OF METAL RAILING
ALIGN THE EDGE OF THE RAMP WITH THE TOP RISER ON STEPS
(N) 2" BLUESTONE PAVERS WITH MORTAR JOINTS
(N) LEADED GROUT
(N) 2" SOAPSTONE COPING STONE
(N) 2" SOAPSTONE VENEER
(N) BLUESTONE
(N) SEALANT AND BACKER ROD
(N) ⅜" ø DOWEL WELDED TO STEEL ANGLE
(E) WATER TABLE
(N) ¾" ø STAINLESS DOWEL
¾" RADIUS
(N) L3x3x¼ WITH ½" ø EXPANSION ANCHOR @
(N) BLUESTONE
SUBGRADE ELEVATION TO BE APPROVED BY C.O.R.
(E) SUBGRADE
NEW RAMP AT INDEPENDENCE HALL – SECTION
SCALE B
SCALE B 1 0 1 2 SCALE OF FEET
SCALE A 2 0 2 4 SCALE OF FEET
DESIGNED BLOWERS DAVIDSON
DRAFTING BR
CHECKED
DATE 2/98
SUB SHEET NO. L1
TITLE OF SHEET
INDEPENDENCE HALL RAMP PLANS AND DETAILS
ACCESSIBLE RAMPS AND RAILINGS INDEPENDENCE NATIONAL H.P.
DRAWING NO. 381 80,018
PKG NO. 412 AC
SHEET 2 OF 5


REMOVE EXISTING SIGN
(N) METAL RAILING GROUT POSTS 4" INTO CONCRETE PICKETS 4" O.C. PER CODE
(N) 4"x8"x2 1/4" BRICK PAVERS ON RAMP SIMILAR TO EXISTING PAVING
TIERED GRANITE STEPS
(N) GRANITE FACED CONCRETE
EXISTING WINDOW WELL
EXISTING WINDOW WELL, SEE DETAIL 5 THIS SHEET
OLD CITY HALL RAMP - ELEVATION 8/L3
SCALE A
NEW SINGLE DOOR TO LOOK LIKE EXISTING (NIC)
(N) 4"x8"x2 1/4" BRICK PAVERS ON RAMP SIMILAR TO EXISTING PAVING
SEE NOTE OF SECTION 2, THIS SHEET
RAMP BRIDGES EXISTING WINDOW WELL
(N) METAL RAILING
(N) GRANITE STEPS SIMILAR TO EXISTING
(N) GRANITE PAVERS ON LANDING
(N) 4"x8"x2 1/4" BRICK PAVERS
(N) WINDOW WELL COVER SEE PLAN 5, THIS SHEET
RAMP LENGTH = 13'-3"
OLD CITY HALL RAMP - PLAN 9/L3
SCALE A
6" TYP
(N) C4x5.4 STIFFENERS
(N) 3/8" ø x4" CONC. ANCHOR (10 PLCS)
5x3'-0", TYP. AT CORNERS
(N) 1/4" STEEL PL
(E) WINDOW WELL CAP STONE
PLAN - WINDOW WELL COVER 5/L3
SCALE C
(N) 1/4" STEEL PLATE
(N) METAL LATH (TACK WELD TO STEEL PLATE 6" O.C. E.W.)
MORTAR BED
PAVERS
(N) 3/8" ø x4" CONC. ANCHOR (10 PLCS)
(N) C4x5.4 (3" REQ'D)
NEW CONCRETE
WINDOW WELL
(E) WINDOW WELL CAP STONE
(N) 18 GA GALV. MTL. FLASHING (CONT OVER CAP STONE)
(N) POLYSTYRENE
NOTE: ALL STEEL FOR WINDOW WELL COVER SHALL BE HOT DIPPED GALVANIZED.
SECTION 6/L3
SCALE B
(E) WALL
℄ OF METAL RAILING
ALIGN THE EDGE OF THE RAMP WITH THE TOP RISER ON STEPS
(N) LEADED GROUT
(N) 2" GRANITE COPING STONE
(N) 2" GRANITE VENEER
(N) SEALANT AND BACKER ROD
(N) 3/8" ø DOWEL WELDED TO STEEL ANGLE
(N) 3/4" BRICK PAVERS WITH MORTARED JOINTS
(N) MORTAR SETTING BED
(N) #5@18"
(N) #5@6"
SUBGRADE ELEVATION TO BE APPROVED BY C.O.R.
(N) MORTAR
SCRIBE EDGE OF RAMP TO FIT 1/2" FROM WATERTABLE
1/2" RADIUS
(E) WATERTABLE
(N) SEALANT AND BACKER ROD
(N) EXPANDED POLYSTYRENE FOAM
(E) SUBGRADE
NEW RAMP AT OLD CITY HALL-SECTION 1/L3
SCALE C
(E) EDGE OF WOOD TRIM AT DOOR
1" R BULLNOSE
(N) 2" GRANITE COPING STONE
(N) BRICK PAVER
(N) 2" GRANITE PAVERS MATCH RAMP CROSS SLOPE
SEE DETAIL 7, THIS SHEET
EQUAL
(N) BACKER ROD AND SEALANT
(N) L3x3x1/4 WITH 3/4" EXPANSION ANCHOR @ 24" O.C.
(N) STAINLESS STEEL DOWELS, TYP.
(N) EXPANDED POLYSTYRENE (EPS) COVERING EXISTING STAIRS FOR PROTECTION
NEW LANDING AT OLD CITY HALL-SECTION 2/L3
SCALE B
(N) BRONZE THRESHOLD PLATE WITH COUNTERSUNK SCREW
EXISTING WOOD THRESHOLD
(N) WOOD BLOCKING
(N) BRONZE LEVELING MECHANISM
(N) CONCRETE
EXISTING STONE THRESHOLD
(N) EXPANDED POLYSTYRENE (EPS)
DETAIL AT THRESHOLD 7/L3
SCALE C
(N) 3/4" THICK BRICK PAVERS
(N) SEALANT AND BACKER ROD
(N) #5 @ 6" CENTERED IN CONCRETE
(N) MORTAR SETTING BED
(E) BRICK PAVERS
(N) #5
SUBGRADE ELEVATION TO BE APPROVED BY C.O.R.
TYPICAL TOE OF RAMP-SECTION 3/L3
SCALE B
(E) BRICK PAVERS
(E) SUBGRADE
(E) SAND CEMENT
(E) BRICK PAVERS DETAIL 4/L3
SCALE B
SCALE C 6 3 0 6 SCALE OF INCHES
SCALE B 12 6 0 12 SCALE OF INCHES
SCALE A 2 0 2 4 SCALE OF FEET
SCALE D 1 0 1 2 SCALE OF FEET
SCALE C 1 0 1 2 3 SCALE OF FEET
DESIGNED BLOWERS DAVISON
DRAFTING BR
TECH. REVIEW
DATE 2/98
SUB SHEET NO. L3
TITLE OF SHEET OLD CITY HALL RAMP PLANS AND DETAILS
ACCESSIBLE RAMPS AND RAILINGS
INDEPENDENCE NATIONAL H.P.
DRAWING NO. 391 80,018
PROJ. NO. 4TA AS
SHEET 4 OF 5


REMOVE EXISTING SIGN
(N) METAL RAILING GROUT POSTS 4" INTO CONCRETE. PICKETS 4½" O.C. PER CODE.
(N) 4"x8"x½" BRICK PAVERS ON RAMP SIMILAR TO EXISTING PAVING
TIERED GRANITE STEPS
(N) GRANITE FACED CONCRETE
EXISTING WINDOW WELL
EXISTING WINDOW WELL, SEE DETAIL 5 THIS SHEET
OLD CITY HALL RAMP – ELEVATION 8/L3 SCALE A
NEW SINGLE DOOR TO LOOK LIKE EXISTING (NIC)
SEE NOTE OF SECTION 2 THIS SHEET.
(N) 4"x8"x½" BRICK PAVERS ON RAMP SIMILAR TO EXISTING PAVING
RAMP BRIDGES EXISTING WINDOW WELL
(N) METAL RAILING
(N) GRANITE STEPS SIMILAR TO EXISTING
(N) GRANITE PAVERS ON LANDING
(N) 4"x8"x½" BRICK PAVERS
(N) WINDOW WELL COVER. SEE PLAN 5. THIS SHEET
RAMP LENGTH = 13'-3"
OLD CITY HALL RAMP – PLAN 9/L3 SCALE A
(N) C4x5.4 STIFFNERS
(N) ½" STEEL PL
(N) ½"ø x4" CONC. ANCHOR (10 PLCS)
⌀5x3'-0", TYP. AT CORNERS
(E) WINDOW WELL CAP STONE
PLAN – WINDOW WELL COVER 5/L3 SCALE C
(N) ½" STEEL PLATE
(N) METAL LATH (TACK WELD TO STEEL PLATE 6" O.C. E.W.)
MORTAR BED
PAVERS
(N) ½"ø x4" CONC. ANCHOR (10 PLCS)
(N) C4x5.4 (3 REQ'D)
NEW CONCRETE
WINDOW WELL
(E) WINDOW WELL CAP STONE
(N) 18 GA GALV. MTL FLASHING (CONT OVER CAP STONE)
(N) POLYSTYRENE
NOTE ALL STEEL FOR WINDOW WELL COVER SHALL BE HOT DIPPED GALVANIZED.
SECTION 6/L3 SCALE B
(E) WALL
℄ OF METAL RAILING
ALIGN THE EDGE OF THE RAMP WITH THE TOP RISER ON STEPS
(N) LEADED GROUT
(N) 2" GRANITE COPING STONE
(N) 2" GRANITE VENEER
(N) SEALANT AND BACKER ROD
(N) ⅝" ℄ DOWEL WELDED TO STEEL ANGLE
(N) ½" BRICK PAVERS WITH MORTARED JOINTS
(N) MORTAR SETTING BED
SCRIBE EDGE OF RAMP TO FIT ½" FROM WATERTABLE
½" RADIUS
(E) WATERTABLE
(N) SEALANT AND BACKER ROD
(N) EXPANDED POLYSTYRENE FOAM
(E) SUBGRADE
SUBGRADE ELEVATION TO BE APPROVED BY C.O.R.
(N) MORTAR
NEW RAMP AT OLD CITY HALL–SECTION 1/L3 SCALE C
(E) FACE OF WOOD TRIM AT DOOR
1" R BULLNOSE
(N) 2" GRANITE COPING STONE
(N) BRICK PAVER
(N) 2" GRANITE PAVERS MATCH RAMP CROSS SLOPE
SEE DETAIL 7, THIS SHEET
(N) BACKER ROD AND SEALANT
(N) LJ3x3x¼ WITH ¾ø EXPANSION ANCHOR @ 24" O.C.
(N) ⌀5@18"
(N) ⌀5@8"
(N) STAINLESS STEEL DOWELS, TYP.
SUBGRADE ELEVATION TO BE APPROVED BY C.O.R.
(N) EXPANDED POLYSTYRENE (EPS) COVERING EXISTING STAIRS FOR PROTECTION
NEW LANDING AT OLD CITY HALL–SECTION 2/L3 SCALE B
(N) ½" THICK BRICK PAVERS
(N) SEALANT AND BACKER ROD
(N) ⌀5@18"
(N) ⌀5 @ 8" CENTERED IN CONCRETE
(N) MORTAR SETTING BED
(E) BRICK PAVERS
(N) ⌀5
SUBGRADE ELEVATION TO BE APPROVED BY C.O.R.
TYPICAL TOE OF RAMP–SECTION 3/L3 SCALE B
(N) BRONZE THRESHOLD PLATE WITH COUNTERSUNK SCREW
EXISTING WOOD THRESHOLD
(N) WOOD BLOCKING
(N) CONCRETE
(N) BRONZE LEVELING MECHANISM
(N) EXPANDED POLYSTYRENE (EPS)
DETAIL AT THRESHOLD 7/L3 SCALE E
(E) BRICK PAVERS
(E) SUBGRADE
(E) SAND CUSHION
(E) BRICK PAVERS DETAIL 4/L3 SCALE D
SCALE E 6 3 0 6 SCALE OF INCHES
SCALE D 1 0 1 2 SCALE OF FEET
SCALE C 1 0 1 2 3 SCALE OF FEET
SCALE B 12 6 0 12 SCALE OF INCHES
SCALE A 2 0 2 4 SCALE OF FEET
DESIGNED: PLOWDEN DAVIDSON
DRAFTING BR.
TECH. REVIEW: Joe Copeland
DATE: 2/98
SUB SHEET NO. L3
TITLE OF SHEET: OLD CITY HALL RAMP PLANS AND DETAILS
ACCESSIBLE RAMPS AND RAILINGS
INDEPENDENCE NATIONAL H.P.
DRAWING NO. 381 80,018
PROJ. NO. 412 AC
SHEET 4 OF 5


SNOW MELTING SYSTEM
ACCESSIBLE RAMPS AND RAILINGS
INDEPENDENCE NATIONAL H.P.
E1
INDEPENDENCE HALL SNOW MELT SYSTEM PLAN
CONGRESS HALL SNOW MELT SYSTEM PLAN
OLD CITY HALL SNOW MELT SYSTEM PLAN
INDEPENDENCE HALL HEATING CABLE INSTALLATION CROSS SECTION
OLD CITY HALL AND CONGRESS HALL HEATING CABLE INSTALLATION CROSS SECTION
NOTE
TRENCH AND CONDUIT SHALL BE INSTALLED THRU EXISTING WALLS IN MORTAR JOINTS OF EXTERIOR STONEWORK.
CIRCUIT TO MANUAL SWITCH AND PANELBOARD RP-1A
JUNCTION BOX MOUNTED ON INSIDE OF BASEMENT WALL
RUN CONDUIT ALONG CEILING OF TUNNEL
(E) TUNNEL BELOW
GRASS LAWN
(E) BASEMENT WINDOW ABOVE GRADE
SEE NOTE
HEATING CABLE IN UNDERGROUND CONDUIT
HEATING CABLE IN MORTAR BED ON CONCRETE RAMP
CIRCUIT TO MANUAL SWITCH AND PANELBOARD RP-3A
JUNCTION BOX MOUNTED ON INSIDE OF BASEMENT WALL
HEATING CABLE IN UNDERGROUND CONDUIT
HEATING CABLE IN MORTAR BED ON CONCRETE RAMP
SEE NOTE
CIRCUIT TO MANUAL SWITCH AND PANELBOARD RP-3A
JUNCTION BOX MOUNTED ON INSIDE OF BASEMENT WALL
HEATING CABLE IN UNDERGROUND CONDUIT
HEATING CABLE IN MORTAR BED ON CONCRETE RAMP
SEE NOTE
HEATING CABLE IN MORTAR BED ON CONCRETE RAMP
STONE PAVERS
MORTAR SETTING BED
HEATING CABLE DIAMETER ≤ 0.2"
NOTE
INSTALL HEATING CABLE 2" MAXIMUM FROM TOP SURFACE OF STONE PAVERS.
BRICK PAVERS
MORTAR SETTING BED
HEATING CABLE DIAMETER ≤ 0.2"
NOTE
INSTALL HEATING CABLE 1" MAXIMUM FROM TOP SURFACE OF BRICK PAVERS.

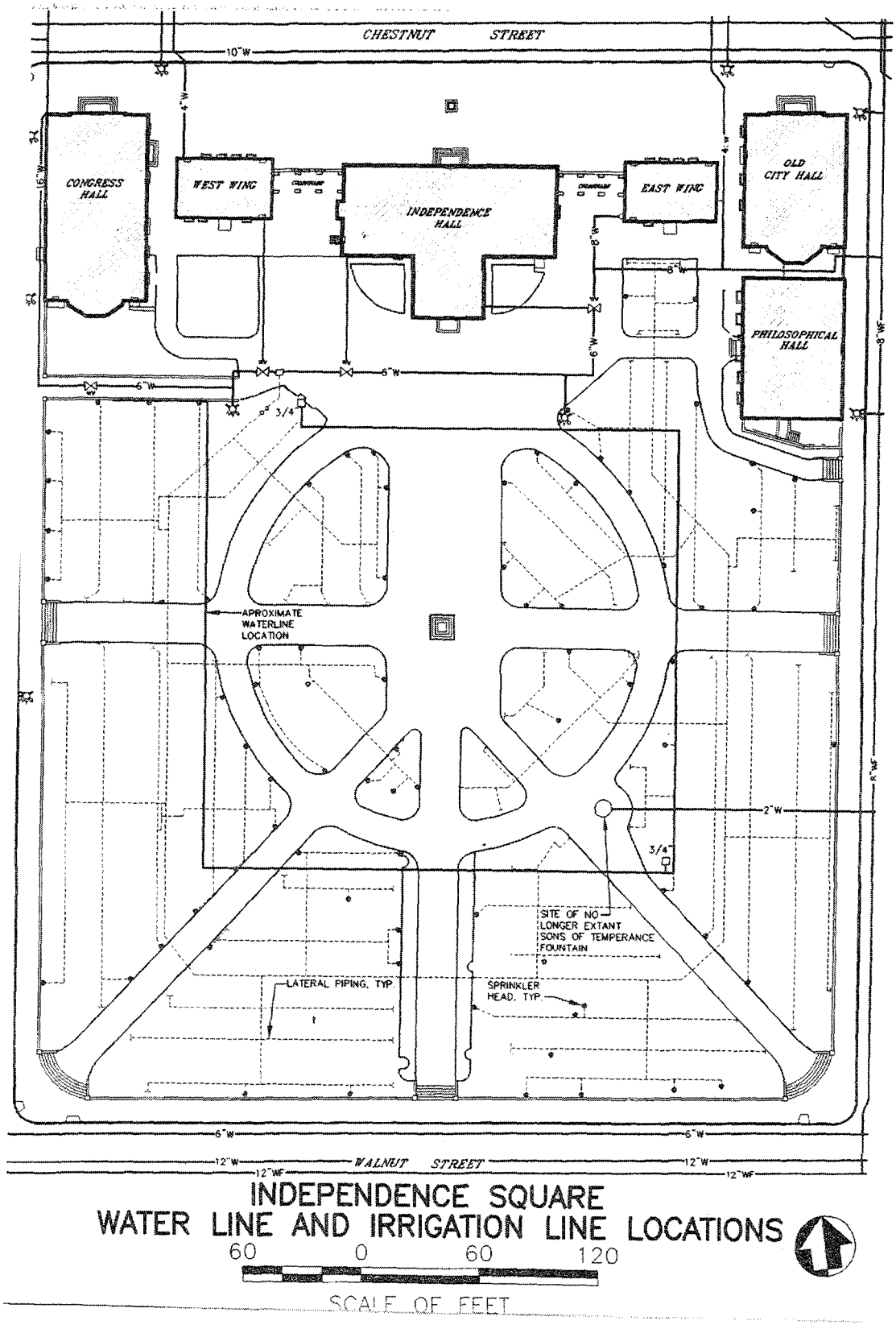
APPENDIX G: UTILITY LINES

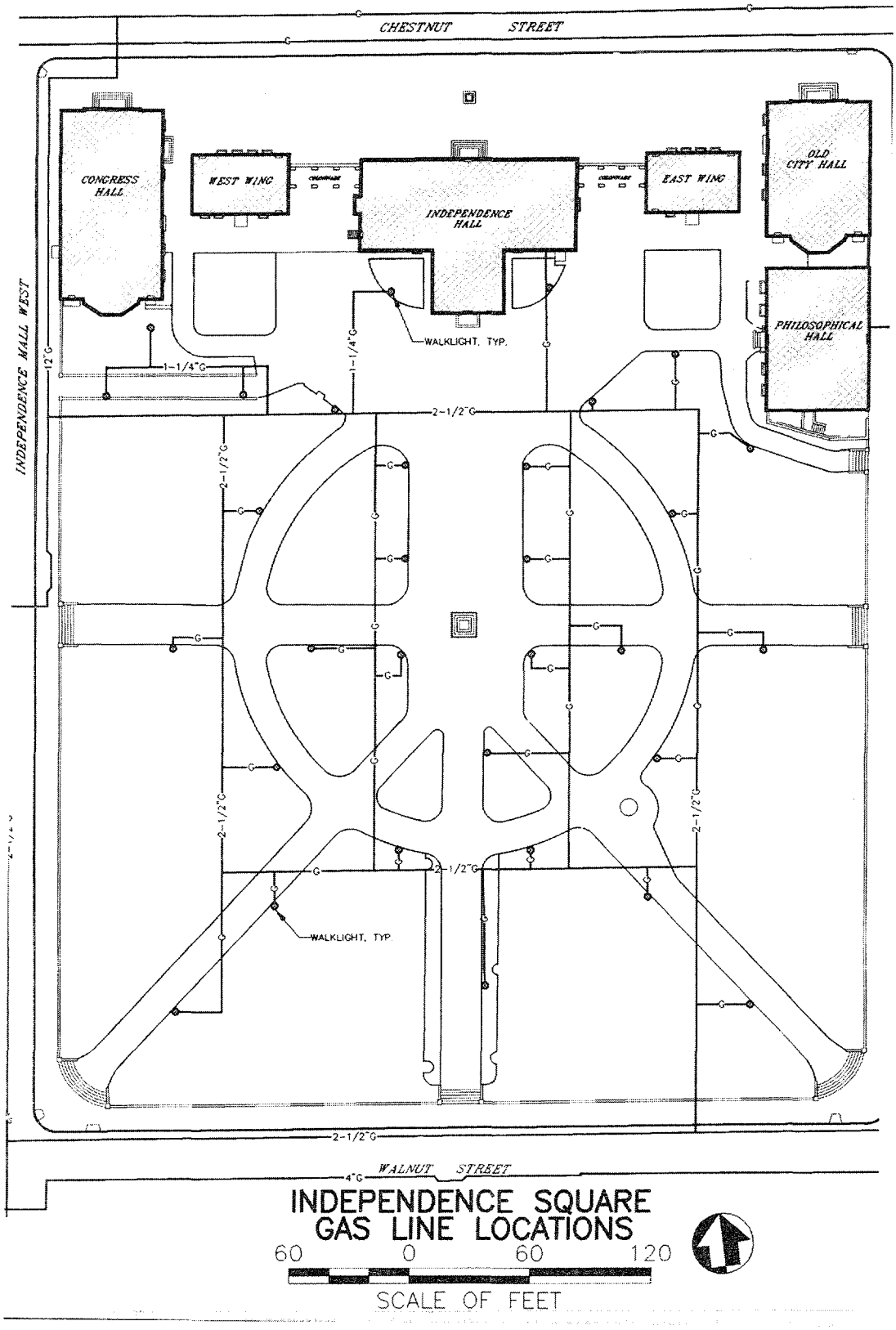


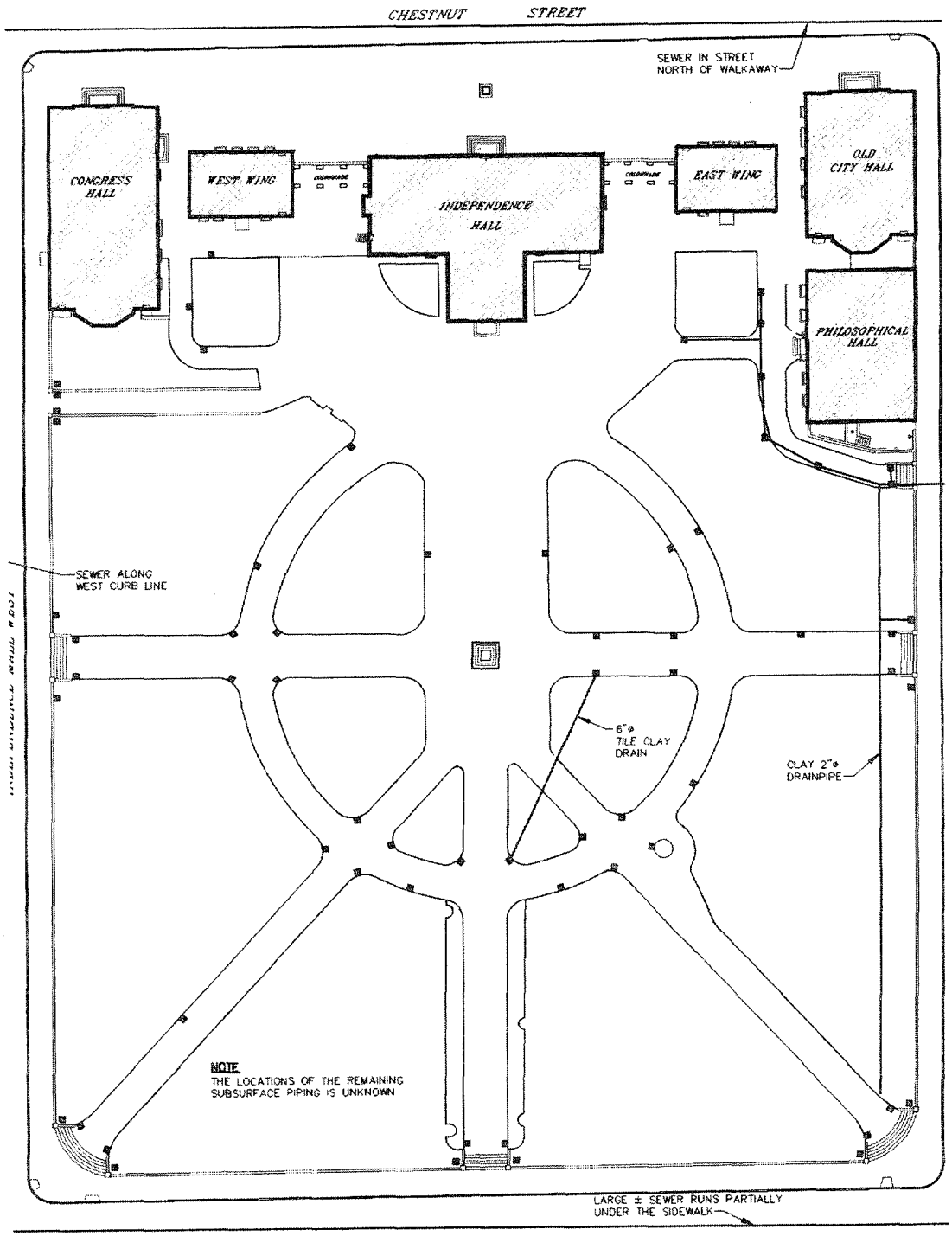
INDEPENDENCE SQUARE
ELECTRICAL LINE LOCATIONS

60 0 60 120

SCALE OF FEET


CHESTNUT STREET
CONGRESS HALL
WEST WING
INDEPENDENCE HALL
EAST WING
OLD CITY HALL
PHILOSOPHICAL HALL
APROXIMATE WATERLINE LOCATION
SITE OF NO LONGER EXTANT SONS OF TEMPERANCE FOUNTAIN
LATERAL PIPING, TYP.
SPRINKLER HEAD, TYP.
WALNUT STREET
INDEPENDENCE SQUARE
WATER LINE AND IRRIGATION LINE LOCATIONS
60 0 60 120
SCALE OF FEET


CHESTNUT STREET
CONGRESS HALL
WEST WING
INDEPENDENCE HALL
EAST WING
OLD CITY HALL
PHILOSOPHICAL HALL
INDEPENDENCE MALL WEST
WALKLIGHT, TYP.
WALKLIGHT, TYP.
12"G
1-1/4"G
2-1/2"G
4"G
WALNUT STREET
INDEPENDENCE SQUARE
GAS LINE LOCATIONS
60 0 60 120
SCALE OF FEET


CHESTNUT STREET
SEWER IN STREET NORTH OF WALKAWAY
CONGRESS HALL
WEST WING
INDEPENDENCE HALL
EAST WING
OLD CITY HALL
PHILOSOPHICAL HALL
SEWER ALONG WEST CURB LINE
6"ø TILE CLAY DRAIN
CLAY 2"ø DRAINPIPE
NOTE
THE LOCATIONS OF THE REMAINING SUBSURFACE PIPING IS UNKNOWN
LARGE ± SEWER RUNS PARTIALLY UNDER THE SIDEWALK
WALNUT STREET
INDEPENDENCE SQUARE
DROP INLET AND STORM SEWER LINE LOCATIONS
60 0 60 120
SCALE OF FEET

APPENDIX H: SCHEMATIC DESIGN CLASS C CONSTRUCTION COST ESTIMATE

1. Repair Paving, Drainage System, and Resolve Accessibility

Drop Inlets/Drains: 53 Total in Square	
- Flush out all inlets @ $50 each =	$ 2,650
-Replace drain inlet interior piping on 50% of the boxes 26 @ $300 =	7,800
- Replace 1 broken grate @ $350 =	350
- Install new drain inlet piping and connect w/city sewer system = 2,580 ln.ft. (West Half - 1,430 lf, East Half -1,150 lf) @ $55 ln.ft. (12" pipe)	141,960
- Sewer connect @ $2,000 ea x 2 =	4,000
Cost Estimate:	**$ 156,760**
Bluestone Paving:	
- Total rough estimate of area: 47,100 sq.ft.	
- Replace broken/cracked/patched: 9,091 sq.ft. @ $70 per sf = (Approximately 20% of total bluestone paving)	$ 636,370
- Pickup and re-grade entire Bluestone area to drain inlets: 47,100 sq.ft. (number stones and	
- Install concrete base beneath bluestone paving south of Independence Hall, 4100 sq. ft.@ $15 =	61,500
Cost Estimate:	**$1,168,870**
Stone Curbs/Edging: 2" Slate Edging in Square	
- To be Reset = 234 ln.ft. @ $45/ ln.ft. =	$10,530
- To be Replaced = 33 ln.ft. @ $85/ ln.ft. =	2,805
Cost Estimate:	**$ 13,335**
Utility Remnants: Remove to six inches below grade	
- Lump Sum =	$ 2,000
Cost Estimate:	**$ 2,000**
Exposed Aggregate Concrete Paving: Removal/replacement w/alternative pavement	
- Central Walk Square: 115'x8' = 920 sq.ft. x2 = 1,840 sq.ft.	
-North Independence Hall: 125'x45' = 5,625' sq.ft. + 129'x45' = 5,805' sq.ft. ft. (total area)	
- Remove existing paving: 13,270 sq.ft. @ $3 sf =	$ 39,810
Alternative Surface Treatments	
- seal and chip surface using colored aggregate @ $10 sf =	132,700
- gravel colored concrete pavers @ $15 sf =	199,050
- bank run gravel and sand = $5 sf =	66,350
Cost Estimate:	**$ 238,860**

Repair Cobblestone Drive (clean silted swales): 2 swales @ 95 ft.

- 1.5′ x 95′ = 142.5 x 2 = 285 sq.ft.@ $5 sf =	$ 1,425
- Miscellaneous patching and grouting of cobblestones lump sum =	5,000
- Replace chain across entry =	100
Cost Estimate:	**$ 6525**

Replace Curb Ramps/Brick:

- 4 Concrete Curb Drain/Inlets replaced with Brick (3′x5′) x 4 = 60 sq.ft.@ $25 sf =	$,500
Cost Estimate:	**$ 1,500**

Handicapped Access Ramps

- Install accessible ramps at Old City Hall, Congress Hall, and Independence Hall, lump sum =	$ 110,000
Cost Estimate:	**$ 110,000**

Granite Curbing:

- Granite street curb replacements = 4 sections @$75/ln.ft. = (Rough or patched connections meeting drain edges, 1 ln.ft. each)	$ 300
Cost Estimate:	**$ 300**

Fabricate and install Stairway Handrails:

- 8 Stairs/16 Handrails @ $350 each =	$ 5,600
Cost Estimate:	**$ 5,600**

2. Lighting

- Install new electrical conduit and conductors for all walkway lights, 2000LF @ $5.00=	$ 10,000
- Repair, repaint and upgrade all light fixtures to incandescent bulbs: 27 lights (rewire if necessary for new bulbs) 27 @ $3,000 ea. =	81,000
- Redesign exterior architectural lighting for the Independence Hall building Complex, lump sum =	100,000
Cost Estimate:	**$ 191,000**

3. Vegetation - Safety Hazards/Structural Deficiencies

- Lump sum =	$ 10,000
Cost Estimate:	**$ 10,000**

4. Irrigation

- Estimate of total square area: 400'x 400' = 160,000 sq.ft.	
- Bluestone area = 47,100 sq.ft.	
Approximate Lawn Area = 112,900 sq.ft.	
- 113,000 sq.ft. Ballpark Estimate of Total Lawn Area @ .75 sq.ft. =	$ 84,750
- New water tap, meter, and backflow preventer with enclosure, lump sum=	20,000
- Install new irrigation in all shrub and plant beds 5,000 sq. ft. @ = $.50	2,500
Cost Estimate:	**$ 107,250**

5. Brick Walls/Stairs

Brick Walls - Marble Coping Stone:	
- Reset coping stone to Brick Wall = 800 ln.ft. @ $35 =	$ 28,000
- Repair cracked/chipped stone w/epoxy adhesive= 50 ln.ft. @ $75 =	3,750
Cost Estimate:	**$ 31,750**
Brick Walls - Stair Piers:	
- Repair of broken/missing bricks (10) @$1,500 =	$ 15,000
- Straighten/support leaning/tipped piers(10) @ 2,000 =	20,000
- Repair Cracks in Brick Wall - grout or caulk 8 locations, vertical crack, 3-4'), $50 lf of pressure grout or $20 lf of hand grout or caulk 32' @ $50 =	1,600
- Repair stairway base problems, lump sum =	2,000
- Reset and level all mis-aligned stair treads, lump sum =	2,000
- Repoint brick walls: 1200 lf x 4.5 ft = 5,400 sf @ $9 =	48,600
Cost Estimate:	**$ 89,200**
Repair or replace severely damaged finials	
- Replace finials 4 @ $5000 =	$20,000
Cost Estimate:	**$ 20,000**
Replace Damaged Stairs:	
- Chipped Granite Steps (2) 11.5' Total ln.ft. @$85 =	$ 988
Cost Estimate:	**$ 1,000**
Brick Walls - Clean Out Weep Holes	
- West Service Drive/2 walls = 22 @ $25 ea =	$ 550
- South Square Perimeter wall = 67 @$25 ea =	1,675
Cost Estimate:	**$ 2,225**

6. Vegetation

All trees planted in north Independence Hall will require excavation of new planting holes in historic areas (archeological requirements) with trenching for roots and installation of 6-foot grates for each. Repair soil compaction and aerate soil in all planting areas. Extensive site work for tree removal and planting for street trees.

- Replant South Square Canopy Trees: 6 @ $1500 ea. =	$ 9,000
- Replant Street Trees north of Independence Hall: 14 @ $10,000 ea. =	140,000
- Remove existing Elms north of Independence Hall: 3 @ $1000 ea. =	3,000
- Replace all shrub beds: 5,000 sq.ft. @ 5 sq.ft. =	25,000
- Mitigate compacted soil and sod: 112,900 sf = 12,550 sy @ $9.50 sy =	119,225
Cost Estimate:	**$ 296,225**

7. Exhibits and Signage

- 6 new wayside exhibits: @ $5000 =	$ 30,000
- 6 new accessibility signs: @ $250 ea =	1500
Cost Estimate:	**$ 31,500**

8. Site Furnishings

Metal Bollards/Chains:	
- Bollards Reset/Straightened - 5 @ $75 each =	$ 375
- Chain Replaced - 160′ (perimeter of island South of East Hall) @ $10 lf =	1,600
- 8′ (SW Independence Hall) =	80
- Repaint Bollards: 50 total on square @ $ 50 ea =	2,500
- Replace wood stave barrel, Lump Sum =	500
- Install new metal bollards at top of all stairways in the south square, 26 bollards @ $2500=	65,000
- Repair one wooden bench back, lump sum =	200
- Repair existing trash receptacles, lump sum =	600
Cost Estimate:	**$ 70,855**

TOTAL OF ALL COSTS (includes highest cost of alternative items)=	**$2,554,755**
15% Design Contingency =	**+ 383,214**
	$2,937,969
DIVISION I (Mobilization and Contractor Administration)= 8%	
CONSTRUCTION COST ESTIMATE =	**+ 235,038**
TOTAL NET CONSTRUCTION COST ESTIMATE=	**$3,173,007**
GROSS CONSTRUCTION COST ESTIMATE (131% x Net Construction) =	**$4,156,640**

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☆U.S. GOVERNMENT PRINTING OFFICE: 1997–843-570





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Publication services were provided by Mary Ryan, visual information technician, Resource Planning Group, Denver Service Center. NPS D-158, March 1998