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National Park Service  
Cultural Landscapes Inventory  
2004



Springfield Armory  
Springfield Armory National Historic Site

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## Contents

### Part 1

Executive Summary .....	Part 1, page 1
Park Information, Property Level and Inventory Summary .....	Part 1, page 3
Landscape Description.....	Part 1, page 5
Cultural Landscapes Inventory Hierarchy Description.....	Part 1, page 8
Location Map.....	Part 1, page 9
Boundary Description, Regional Context.....	Part 1, page 11
Site Plan.....	Part 1, page 13
Chronology.....	Part 1, page 14
Statement of Significance .....	Part 1, page 23

### Part 2

#### Physical History

Introduction .....	Part 2a, page 1
Choosing the Site, Prehistory – 1777 .....	Part 2a, page 1
Building the Grand National Armory, 1778 – 1864 .....	Part 2a, page 3
Maintaining the Armory, 1865 – 1968.....	Part 2b, page 1
Changing the Function of the Armory, 1968 – Present.....	Part 2b, page 12

### Part 3

#### Analysis and Evaluation

Summary.....	Part 3a, page 1
Landscape Characteristics and Features	
Natural Systems and Features .....	Part 3a, page 1
Spatial Organization.....	Part 3a, page 3
Land Use.....	Part 3a, page 7
Topography.....	Part 3a, page 8
Vegetation.....	Part 3a, page 9
Circulation .....	Part 3b, page 1
Buildings and Structures .....	Part 3b, page 8
Views and Vistas.....	Part 3b, page 17
Small Scale Features.....	Part 3b, page 18
Archeological Sites.....	Part 3b, page 24

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**Part 4**

Management Information

Descriptive and Geographic Information, Boundary UTMs .....	Part 4, page 1
National Register Information.....	Part 4, page 1
National Historic Landmark Information, World Heritage Information .....	Part 4, page 4
Cultural Landscape Type and Use.....	Part 4, page 4
Ethnographic Information, Adjacent Lands Information.....	Part 4, page 5
General Management Information, Condition Assessment and Impacts .....	Part 4, page 7
Agreements, Legal Interest, and Access .....	Part 4, page 9
Treatment, Approved Treatment Cost, Stabilization Costs.....	Part 4, page 10
Documentation Assessment and Checklist.....	Part 4, page 12
Appendix	
Bibliography .....	Part 4, page 13
Fold-out Plans (11" x 17") .....	end of report

## Executive Summary

### General Introduction to the CLI

The Cultural Landscapes Inventory (CLI) is a comprehensive inventory of all historically significant landscapes within the National Park System. This evaluated inventory identifies and documents each landscape's location, physical development, significance, National Register of Historic Places eligibility, condition, as well as other valuable information for park management. Inventoried landscapes are listed on, or eligible for, the National Register of Historic Places, or otherwise treated as cultural resources. To automate the inventory, the Cultural Landscapes Automated Inventory Management System (CLAIMS) database was created in 1996. CLAIMS provides an analytical tool for querying information associated with the CLI.

The CLI, like the List of Classified Structures (LCS), assists the National Park Service (NPS) in its efforts to fulfill the identification and management requirements associated with Section 110(a) of the National Historic Preservation Act, NPS Management Policies (2001), and Director's Order #28: Cultural Resource Management (1998). Since launching the CLI nationwide, the NPS, in response to the Government Performance and Results Act (GPRA), is required to report on an annual performance plan that is tied to 6-year strategic plan. The NPS strategic plan has two goals related to cultural landscapes: condition (1a7) and progress on the CLI (1b2b). Because the CLI is the baseline of cultural landscapes in the National Park System, it serves as the vehicle for tracking these goals.

For these reasons, the Park Cultural Landscapes Program considers the completion of the CLI to be a servicewide priority. The information in the CLI is useful at all levels of the park service. At the national and regional levels it is used to inform planning efforts and budget decisions. At the park level, the CLI assists managers to plan, program, and prioritize funds. It is a record of cultural landscape treatment and management decisions and the physical narrative may be used to enhance interpretation programs.

Implementation of the CLI is coordinated on the Region/Support Office level. Each Region/Support Office creates a priority list for CLI work based on park planning needs, proposed development projects, lack of landscape documentation (which adversely affects the preservation or management of the resource), baseline information needs and Region/Support office priorities. This list is updated annually to respond to changing needs and priorities. Completed CLI records are uploaded at the end of the fiscal year to the National Center for Cultural Resources, Park Cultural Landscapes Program in Washington, DC. Only data officially entered into the National Center's CLI database is considered "certified data" for GPRA reporting.

The CLI is completed in a multi-level process with each level corresponding to a specific degree of effort and detail. From Level 0: Park Reconnaissance Survey through Level II: Landscape Analysis and Evaluation, additional information is collected, prior information is refined, and decisions are made regarding if and how to proceed. The relationship between Level 0, I, and II is direct and the CLI for a landscape or component landscape inventory unit is not considered finished until Level II is complete.

A number of steps are involved in completing a Level II inventory record. The process begins when the CLI team meets with park management and staff to clarify the purpose of the CLI and is followed by historical research, documentation, and fieldwork. Information is derived from two efforts: secondary sources that are usually available in the park's or regions' files, libraries, and archives and on-site landscape investigation(s). This information is entered into CLI database as text or graphics. A park

report is generated from the database and becomes the vehicle for consultation with the park and the SHPO/TPO.

Level III: Feature Inventory and Assessment is a distinct inventory level in the CLI and is optional. This level provides an opportunity to inventory and evaluate important landscape features identified at Level II as contributing to the significance of a landscape or component landscape, not listed on the LCS. This level allows for an individual landscape feature to be assessed and the costs associated with treatment recorded.

The ultimate goal of the Park Cultural Landscapes Program is a complete inventory of landscapes, component landscapes, and where appropriate, associated landscape features in the National Park System. The end result, when combined with the LCS, will be an inventory of all physical aspects of any given property.

#### Relationship between the CLI and a CLR

While there are some similarities, the CLI Level II is not the same as a Cultural Landscape Report (CLR). Using secondary sources, the CLI Level II provides information to establish historic significance by determining whether there are sufficient extant features to convey the property's historic appearance and function. The CLI includes the preliminary identification and analysis to define contributing features, but does not provide the more definitive detail contained within a CLR, which involves more in-depth research, using primary rather than secondary source material.

The CLR is a treatment document and presents recommendations on how to preserve, restore, or rehabilitate the significant landscape and its contributing features based on historical documentation, analysis of existing conditions, and the Secretary of the Interior's standards and guidelines as they apply to the treatment of historic landscapes. The CLI, on the other hand, records impacts to the landscape and condition (good, fair, poor) in consultation with park management. Stabilization costs associated with mitigating impacts may be recorded in the CLI and therefore the CLI may advise on simple and appropriate stabilization measures associated with these costs if that information is not provided elsewhere.

When the park decides to manage and treat an identified cultural landscape, a CLR may be necessary to work through the treatment options and set priorities. A historical landscape architect can assist the park in deciding the appropriate scope of work and an approach for accomplishing the CLR. When minor actions are necessary, a CLI Level II park report may provide sufficient documentation to support the Section 106 compliance process.

## Park Information

**Park Name:** Springfield Armory National Historic Site  
**Administrative Unit:** Springfield Armory National Historic Site  
**Park Organization Code:** 1930  
**Park Alpha Code:** SPAR

## Property Level And CLI Number

**Property Level:** Landscape  
**Name:** Springfield Armory  
**CLI Identification Number:** 650056  
**Parent Landscape CLI ID Number:** 650056

## Inventory Summary

**Inventory Level:** Level II

### Completion Status:

#### Level 0

Date Data Collected - Level 0: 4/10/1998  
Level 0 Recorder: David Uschold  
Date Level 0 Entered: 4/10/1998  
Level 0 Data Entry Recorder: David Uschold  
Level 0 Site Visit: No

#### Level I

Date Level I Data Collected: 8/31/2002  
Level I Data Collection: Amy Kinsey  
Date Level I Entered: 5/20/2004  
Level I Data Entry Recorder: Laurie Matthews  
Level I Site Visit: Yes

#### Level II

Date Level II Data Collected: 8/31/2002  
Level II Data Collection: Amy Kinsey  
Date Level II Entered: 5/20/2004  
Level II Data Entry Recorder: Laurie Matthews  
Level II Site Visit: Yes  
Date of Concurrence: 7/20/2004

## Landscape Description

### Physical Description:

The Springfield Armory National Historic Site (Springfield Armory NHS or SPAR) is a 54.92-acre complex located in Springfield, Massachusetts. Springfield is located in Hampden County, in the southwestern part of the state (Congressional Bill S.979, 1973). The site, known historically as Armory Square, is located on a hill plateau immediately northeast of the Connecticut River and the center city area (SPAR Draft Master Plan, 1971).

The national historic site, also referred to as Armory Square, has several legal interests comprising its grounds. The National Park Service (NPS) owns and manages the western 20.32-acre portion of the site, which includes the Main Arsenal (Building 13), the Commanding Officer's Quarters (Building 1), and the terraced slope. The remaining 34.61 acres of the 54.92-acre site are owned and managed by the Commonwealth of Massachusetts and operated by the Springfield Technical Community College (STCC). This area includes the main entrance to the site, the Green, most of the historic structures of the site defining the Green, as well as other historic structures and non-contributing structures to the north and northeast.

Enclosed by a historic iron fence, the organization of the Armory Square complex is structured around a central rectangular Green. The sloping grounds around the perimeter have a park-like appearance, particularly along the steeply sloping western portion. The Green has a more structured appearance, with a slightly offset walk extending along the main east/west axis, and cross axis walk extending north/south. These walks join at an offset central oval. Formal single rows of trees line the walks, and roughly line the perimeter of the Green. Informal plantings of trees dot the open space area on the north side of the Green, but its use by the college on the south side as athletic fields has resulted in an expansive lawn for that area of the Green.

Other than the Green, much of the eastern grounds operated by the STCC are used as surface parking to accommodate the approximately 3000 day students and 3000 night students. Though STCC recognizes its campus as contributing to the SPAR historic site, the landscape is managed for its contemporary use as a college campus – management that lessens its historic significance.

The Armory Square site represents only one portion of the Springfield Armory, as it existed during its period of operation. Five components within the city comprised the Armory. The second component was the Federal Square installation, located across Federal Street, on the adjacent block to the east. Armory Square and Federal Square were collectively recognized as the Hill Shops. The Water Shops, a third component of the Armory (formerly called the Upper Water Shops), was a manufacturing complex located along the Mill River approximately one mile southeast of the Hill Shops area. The fourth component was the Railhead Area Testing Facility located on Page Boulevard, approximately 1½ miles northeast of the Hill Shops. The fifth component was the Magazine. Federal Square, the Water Shops and the Railhead Area facilities are all currently in private ownership, and are not managed as cultural resources, nor are they the focus of this Cultural Landscapes Inventory (CLI).

### Significance Summary:

Springfield Armory NHS is historically significant under National Register Criterion A for the events encompassing the Armory's national contribution to military defense and advances in manufacturing in the late 18th through mid-20th centuries and under Criterion C as an intact, representative example of 19th through early 20th century military campus landscape design.

The role of the Springfield Armory in the research, development, and manufacturing of arms for the United States military is the basis for its national significance. The period of significance reflects the continuous importance of the Armory from 1778 to its phase-out as a military installation in 1967-1968. Established by Congress in 1794, the Springfield Armory was the first federal manufacturing facility for military shoulder arms in the country. During the early nineteenth century, the Armory made important contributions to the military and American industry by developing techniques for manufacturing interchangeable parts, thus leading to the assembly line production method.

On December 19, 1960, the Armory Square area was designated a National Historic Landmark, and listed on the National Register of Historic Places in 1966 with the adoption of the National Historic Preservation Act. After the close of the Armory in 1968, the 34.61-acre eastern portion of the 54.92-acre complex was deeded to the Department of Housing and Urban Development who in turn leased the property to the Commonwealth of Massachusetts. At the end of the 30-year lease the property was deeded to the Commonwealth. In 1974, Congress authorized the Springfield Armory NHS and it was established in 1978. The boundary contains the 54.92-acre Armory Square area defined by the National Historic Landmark district and National Register district.

The national historic site landscape was laid out in a traditional military campus design, with the central Green and former Revolutionary War training ground serving as the organizational and spatial framework of the site. The addition of living quarters and manufacturing and storage facilities over time would respect the orientation, architectural character and open space of this central area. The evolution of the grounds complex as a campus reflected the changing landscape design styles in the United States from the early 19th century through the early to mid-twentieth century. The Springfield Armory site also had an impact on the pattern of development in the city. The park-like campus of the Armory made it a desirable location and Springfield's elite built mansions along State Street in order to live within close proximity. The surrounding neighborhood also expanded to provide housing for the workers.

#### Analysis and Evaluation Summary:

Though the architectural and spatial qualities of the Springfield Armory remained relatively consistent from the late 1860's until the site closed in 1968, the landscape did evolve. As landscape design styles changed in the mid to late 19th century, gently curving walks and drives were added along the slope and around the Commanding Officer's Quarters (Building 1). Fountains, greenhouses, and gardens were added in the late 19th century and early 20th century to serve as an impressive showcase for the Armory. This time period during the early 20th century is considered the height of the grounds development as an impressive, well-tended display.

Much of the ornamental qualities of the grounds were scaled-down during the mid 20th century, before the close of the Springfield Armory in 1968. The fountains were removed by the 1930's, and the rose garden and greenhouses were removed in the 1950's. After the close of the Armory in 1968, the 34.61-acre eastern portion of the 54.92-acre complex was deeded to the Commonwealth of Massachusetts for the Springfield Technical Community College (STCC), and 20.32 acres west of the Green were acquired by the City of Springfield. During the next few years, significant alterations were made to the site. This included the demolition of officers' quarters, construction of new college buildings along the Green, additions to some existing structures, the clearing of trees in portions of the Green for athletic fields, the addition of surface parking, and the filling of earth to level slopes. In 1978, the City of Springfield transferred ownership of the 20.32 acres to the NPS.

Today, the National Park Service-owned portion of the site, west of the Green, retains much of its late

19th century to mid 20th century historic park-like character of a sloping lawn with a mature canopy of large shade trees. The perimeter fence, the Main Arsenal (Building 13), and the Commanding Officer's Quarters (Building 1) have seen little change since 1864 and convey the site's historic character. The remaining walks and roadways retain their early 20th century historic character, and the wooded slope and ravine and the meadow (referred to as the Hayfield) to the west and north on the NPS property also retain much of their historic character.

While most of the STCC portion of the site retains its historic character, the most significant changes have occurred here since the end of the period of significance. A large percentage of open space of the STCC property has been transformed into asphalt surface parking to accommodate faculty, staff, and commuting students of the community college. Though surface parking lots were present along the southeast and northwest perimeter of the property during the later years as an operational Armory, much of the open space north and northeast and south of the Green still retained an informal arrangement of shade and evergreen trees and clipped lawn. In addition, some buildings were removed in order to make room for the three contemporary structures (Scibelli, Deliso and Putnam Halls).

#### Integrity Summary:

Based on the research conducted for the CLI, the Springfield Armory NHS retains a high level of historic integrity reflecting the period of significance from 1778 (the date when it began as a federal arms storage, equipage and repair facility) to 1968 (the date of the installation's military deactivation) for the site's contribution to military defense, advances in manufacturing, and as a representative example of 19th through early 20th century military campus landscape design.

#### Condition Assessment:

The current condition of the overall landscape of Springfield Armory National Historic Site is fair. While many features are in good condition, several require stabilization or treatment efforts to correct and prevent further deterioration. These features include some vegetation (specimen trees, hedges/shrubs, lawn), the perimeter fence and sidewalk, the historic concrete and flagstone walkways, some buildings, and slopes being affected by erosion mainly along Byers Street and State Street.

## Cultural Landscapes Inventory Hierarchy Description

Springfield Armory National Historic Site is being classified as a single landscape for the purposes of the CLI, reflecting the historic bounds of Armory Square, including the iron perimeter fence and sidewalk which were built as a comprehensive whole. Today, however, the landscape is divided into three differently owned parts: 1. The National Park Service (NPS) property, consisting of approximately 20.32 acres at the western part of the site encompassing the Main Arsenal (Building 13) and the Commanding Officer's Quarters (Building 1); 2. The Springfield Technical Community College (STCC) property, consisting of 34.61 acres at the eastern end of the site, encompassing the Green and multiple historic and modern buildings owned by the Commonwealth of Massachusetts; and 3. The periphery of the site along the surrounding public streets, encompassing the historic sidewalk and tree belt owned by the City of Springfield. The primary emphasis of this CLI is on the NPS property, plus the Green (STCC property) and perimeter fence (partly on STCC property) for which NPS retains a management interest (scenic easement); and secondarily on the STCC property and City-owned perimeter.

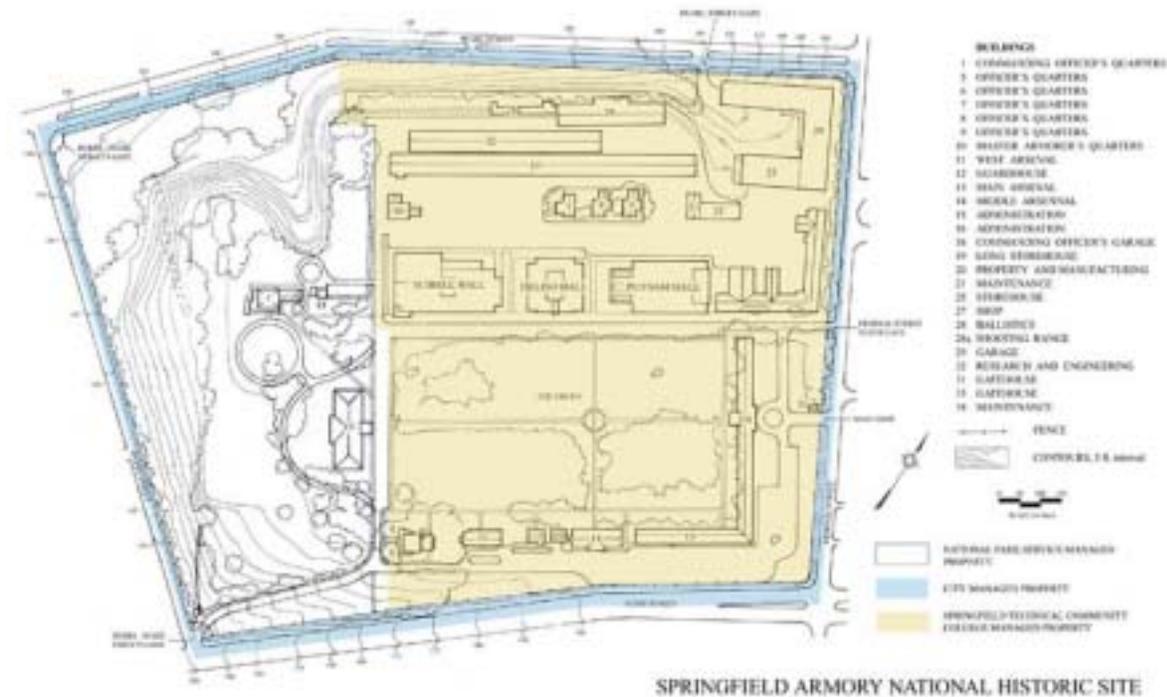


Figure 1. Springfield Armory National Historic Site (Armory Square).

## Location Map



Figure 3. National Park Service Property (SPAR) and Springfield Technical Community College Property (STCC) of the Springfield Armory National Historic Site (DeCesare, 1990, p. 4, SUNY-ESF digitally enhanced).



Figure 2. Springfield within the NE (SUNY-ESF) (left) and Springfield Armory National Historic Site (2, Armory Square) within Springfield, MA (SUNY-ESF digitally enhanced from Draft Master Plan, 1971) (right).

## Boundary Description

The National Historic Site includes the Armory Square area of the original Armory, bounded by State Street, Federal Street, Pearl Street, and Byers Street. This is the same area designated for the National Historic Landmark. The boundary is consistent with description in the original National Register of Historic Places nomination form (12/12/75), described as:

“Beginning at the intersection of the midlines of State and Federal Streets; thence northwesterly by the midline of Federal Street, 1270 feet more or less, to its intersection with the midline of Pearl Street; thence southwesterly by the midline of Pearl Street, in two sections 1,250 and 745 feet more or less, to its intersection with the midline of Byers Street; thence southeasterly by the midline of Byers Street, 1,345 feet more or less to its intersection with the midline of State Street; thence northeasterly by the midline of State Street, in two sections of 985 and 515 feet more or less, to the point of beginning.”

## Regional Context

### Political Context

Springfield Armory National Historic Site is located in the City of Springfield, Hampden County, Massachusetts. The land use around the Armory primarily includes concentrations of residential areas, office/commercial uses, and light industry. On the east side of Federal Street, adjacent to the site, Federal Square is an industrial zoned area affiliated with the Springfield Technical Community College, and operated as a technology park. Pearl and Byers Streets to the north and west are mainly residential streets. Pearl Street includes primarily individual structures, apartment buildings, and a police headquarters; and Byers Street contains mainly row houses (Draft Master Plan, 1971). State Street, formerly the elite residential section of the city, is a four-lane local route south of the site comprised of offices, municipal buildings, and retail businesses.

### Physiographic Context

The City of Springfield, located in the Pioneer Valley region of western Massachusetts, is situated just to the east of the Berkshire Mountain range. The city lies on a sandy delta known as the Chicopee Sand Plain. Formerly a glacial lakebed, the delta was formed by the deposition of sediment from the Chicopee River emptying into the glacial lake. When the lake drained approximately 13,000 to 10,000 years ago, the Connecticut River cut into the empty lakebed, creating large flood plains along the banks. Sand dunes up to 55 feet high were created from windswept deposits, and eventually stabilized by vegetation. The Springfield Armory is located on one of these post-glacial sand dunes approximately three-fourths of a mile east of the Connecticut River. Soil southwest of the Main Arsenal (Building 13) is Windsor sandy loam (Lackay, 1984, p. 5-7)

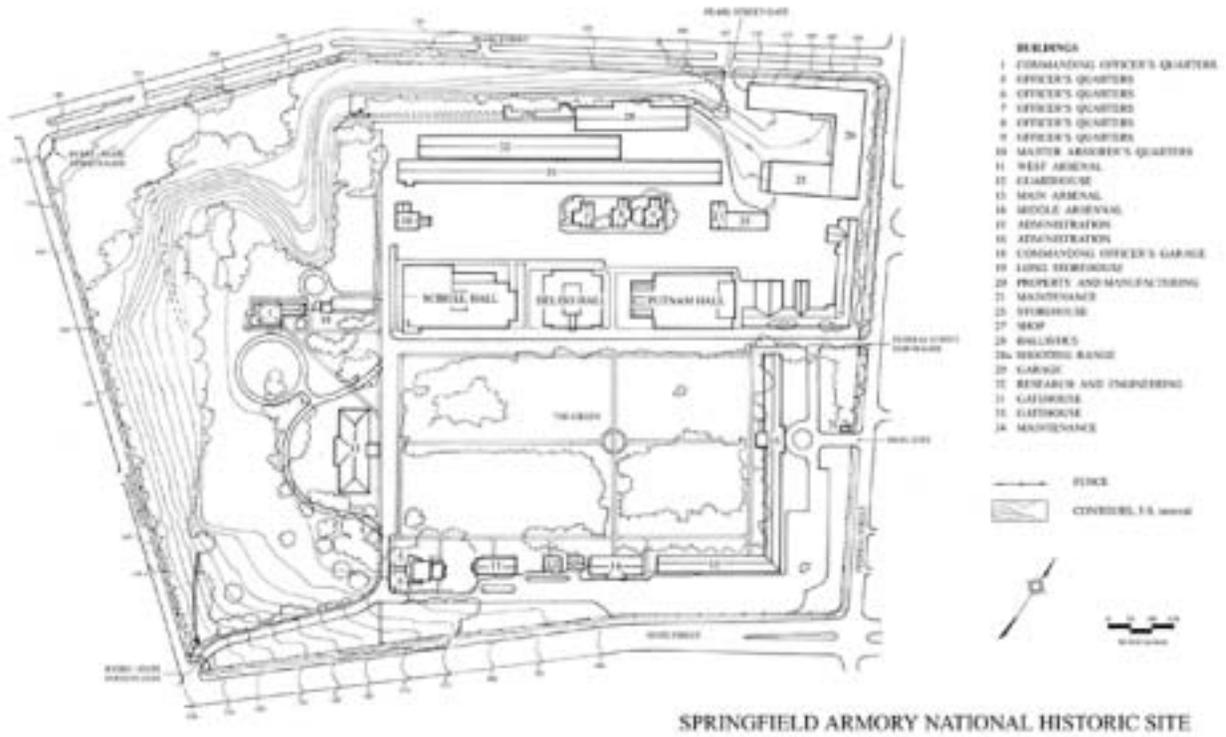
## **Cultural Context**

The Springfield Armory is in the City of Springfield, Massachusetts, a city of approximately 152,000 people located near major east/west and north/south corridors in central Massachusetts. The Springfield Armory is located approximately three-fourths of a mile east of the Connecticut River, and is elevated on a bluff above the center city. State Street, formerly a section of U.S. Route 20, passes east/west through Springfield, comprising the southern boundary to the Armory. Interstate 91 runs north/south along the Connecticut River less than a mile west of the Armory, and the Massachusetts Turnpike (Interstate 90) is located approximately five miles to the north.

Along with the nearby early industrial centers of Holyoke, Chicopee, Greenfield, and Westfield, Springfield made significant contributions to the American Industrial Revolution through its innovations in manufacturing. Much of this contributed directly to the techniques developed at the Springfield Armory. The development of Springfield was historically concentrated along the Connecticut River since its beginnings as a trading post in 1636. Important for waterpower of early mills, Mill River also served as an important power source for the development of manufacturing by the city and the Armory.

## Site Plan

Figure 4. Existing Conditions Site Plan of the Springfield Armory NHS, 2003. (11 x 17 in Appendix)



## Chronology

<b>Year</b>	<b>Event</b>	<b>Description</b>
1777 AD	Established	Continental Congress rents a barn at Main and Emory Streets (not at the Armory Square site) in Springfield for arms storage, equipage, and repair.
1778 AD	Established	Continental Congress leases Armory Square site from the City of Springfield.
1778 AD	Built	A carriage shop, barracks, and magazine are built.
1780 AD	Established	Facility expanded to include a powder magazine, barrack, and workshop, at the Armory Square site, organized around a Green, which was the old training ground for the town's militia.
1794 AD	Established	First national armory established in Springfield, MA for the purpose manufacturing of weapons. (Harpers Ferry is established in 1799)
1801 AD	Land Transfer	City of Springfield conveys, at the Armory Square site, "30 acres, two roods, and 14 rods" to the United States.
1807 - 1808 AD	Built	First extant structure, West Arsenal (Building 11), is completed.
1809 AD	Built	A Stock and Filing Shop (earliest portion of Building 27) and a Foraging Shop (later site of North Shop) are constructed.
1815 AD	Built	Circa 1815, Superintendent Lee's Quarters constructed.
1815 AD	Expanded	Armory Square complex covers fifty acres.
1815 - 1833 AD	Planned	Superintendent Roswell Lee views the armory as a metaphor for America's growing military strength and begins developing the area to appear strong, organized, and imposing.

1819 AD	Built	Two-story brick office and chapel (center of extant Building 16) is completed on east side of the Green.
1820 AD	Platted	Plan shows 6 structures including schoolhouse, pay office, and Superintendent Lee's Quarters; "Liberty Pole"; private residences, 5 "U. S. Manufacture of Firearms" buildings, 3 military stores buildings, fire engine house, and 2 private residences.
1824 - 1825 AD	Built	Fire destroys several wooden structures including Foraging Shop. North and South Shops are completed on east side of Green (north and south portions of extant Building 16). East Arsenal (Building 15) is completed on south side of Green.
1830 AD	Built	Middle Arsenal (Building 14) is completed on the south side of the Green.
1830 AD	Land Transfer	Circa 1830, additional land is purchased along the northwest ravine.
1830 - 1831 AD	Altered	Map of the Armory Hill area shows structure locations, formal tree planting patterns on the Green and along the streetscape, and changed circulation patterns.
1833 AD	Built	The Paymaster's Quarters (Building 17) and Master Armorer's Quarters (Building 10), on the west side of the Green, and Officer's Quarters (Building 7), to the north of but not on the Green, are completed.
1836 AD	Built	Officers' Quarters (Buildings 4, 8, and 9) are constructed north of the Green.
1840 - 1882 AD	Planned	Maj. Edward Ingersoll directs the landscaping of the grounds.
1841 AD	Land Transfer	Superintendent Ripley requests funding to improve the grounds.

1841 - 1854 AD	Land Transfer	Additional land bordering on Byers Street and the lower western tract along Pearl Street is purchased.
1843 - 1845 AD	Removed	Superintendent Lee's Quarters razed.
1844 - 1865 AD	Built	A garage (Building 29) is constructed in multiple sections.
1845 AD	Built	The extant Commanding Officer's Quarters (Building 1) is begun on the northwest corner of the Green.
1845 AD	Excavated	Two brick cisterns are excavated, one adjacent to the Main Arsenal (Building 13) and the other at the northeast corner of Armory Square (site of Building 20)
1845 - 1850 AD	Altered	Extensive grading takes place. Terracing is added to control erosion on the north and west sides of Armory Square. Sod is laid and culverts are constructed.
1846 AD	Land Transfer	Land is added to the south side of Armory Square when the city realigns and widens State Street.
1846 - 1850 AD	Built	Circa 1846-1850, the west side of the extant Long Storehouse (Building 19) is built on the north side of Armory Square.
1847 - 1850 AD	Built	Main Arsenal (Building 13) is completed on the west side of the Green.
1847 AD	Altered	Streets traversing the Green are closed to the public.
1851 AD	Altered	Sidewalks on N, S, & W sides of Green paved w/flagstone; street lamps installed around Green; brick & cement gutters constructed on sidewalks to N & W of Green; pond in NE corner of Armory Square completed.
1851 AD	Altered	Two maps, a birds-eye view and a plan view, show structure locations and changes in circulation patterns.

1852 AD	Designed	Superintendent Ripley approves patterns for extant fence's palings and gates. Casting of fence is begun.
1853 AD	Built	State Street section of fence is built.
1857 AD	Altered	Terracing to the south and west of the Main Arsenal (Building 13) is replaced by a gradual slope. Cut soil was used to extend Byers Street. Trees, shrubs, and grass are planted on the slope to help prevent erosion.
1861 - 1862 AD	Built	Perimeter fence is completed. Main entrance is on State Street with sentry box on the west side of the entrance.
1863 AD	Altered	The Long Storehouse (Building 19) is extended to the east.
1864 AD	Altered	During Civil War (by 1864), Office Building, North Shop, and South Shop were joined. Then third story, 5-story square tower, and 5-column portico added to form Administration Building (Building 16).
1864 AD	Platted	Plan view map and photo clearly document existing conditions. Plan view shows vegetation patterns (i.e., garden layouts, hedges, and tree locations) as well circulation and topographic features.
1864 AD	Built	By 1864, 2 small octagonal icehouses, 1 NW of Main Arsenal (Building 13), other NE of Commanding Officer's Quarters (Building 1); Garage (Building 26); and Maintenance Building (Building 21) constructed.
1870 AD	Altered	Circa 1870, a porch is added to Commanding Officer's Quarters (Building 1).
1870 AD	Built	Officers' Quarters (Buildings 5 and 6, duplex), are built.

1875 AD	Moved	Upon the regrading of State Street, the main entry road/gate is relocated from State Street location to corner of Byers and State Streets.
1875 AD	Built	A new gate and octagonal gatehouse are completed at the corner of Byers and State Streets.
1876 AD	Memorialized	Monument is built along the entrance drive from Byers and State Streets.
1877 AD	Built	Circa 1877, a circular pool and fountain are constructed northwest of the Commanding Officer's Quarters (Building 1) near Pearl Street.
1877 - 1882 AD	Altered	Circa 1877-1882, the Master Armorer's Quarters (Building 10) is moved to its present location, changes occur in gardens around the Commanding Officer's Quarters (Building 1).
1880 AD	Built	Guardhouse (Building 12) is constructed.
1894 AD	Built	Officer's Quarters (Building 2) is constructed.
1894 AD	Built	Officer's Quarters (Building 3) is constructed.
1895 AD	Moved	Main portion, front section, of the Paymaster's Quarters (Building 17) is moved to north side of Green.
1899 AD	Built	Circa 1899, a curving road is built to the south and west of the Main Arsenal (Building 13) and connects the western road on the Green to the circle in front of the Commanding Officer's Quarters (Building 1).
1899 AD	Built	Circa 1899, a new walk is constructed from the Byers and State Streets entry to the Main Arsenal (Building 13) and there is a circle drive in front of Commanding Officer's Quarters (Building 1).
1902 AD	Built	Two large greenhouses (together designated Building 24 and historically referred to as "Root and Propagating Houses") are built northeast of the ravine.

1904 AD	Built	Pool and fountain northwest of the Main Arsenal (Building 13) first appear in a plan of main grounds.
1904 - 1932 AD	Built	Between 1904 and 1932 the Ballistics Building (Building 28), Shooting Range (Building 28a), and Research and Engineering Building (Building 32) are constructed.
1908 AD	Built	A new Gatehouse (Building 33) is built at the corner of Byers and State Street to replace octagonal structure built in 1875.
1909 AD	Removed	Circa 1909, the circular pool and fountain northwest of the Main Arsenal (Building 13) are removed.
1910 AD	Built	A tennis court is constructed to the west of the Main Arsenal (Building 13).
1910 - 1932 AD	Built	Between 1910 and 1932 the Maintenance Building (Building 34) is constructed.
1920 AD	Platted	The elevation, 199.41 feet, and the location of the southwest corner stone of the original 1801 land purchase are shown.
1932 - 1937 AD	Built	Between 1932 and 1937 the Property and Manufacturing Building (Building 20), Storehouse (Building 25), and Gatehouse at Byers/State Street (Building 31) are constructed.
1937 AD	Built	The Commanding Officer's Garage (Building 18) is completed east of Commanding Officer's Quarters (Building 1).
1938 AD	Destroyed	A hurricane leaves large gaps in the mature tree canopy.
1958 AD	Removed	The two large greenhouses (Building 24) are removed.
1960 AD	Established	Armory Square is designated a National Historic Landmark.

1964 AD	Platted	Plan of existing conditions identifies trees by species.
1966 AD	Established	Armory Square is administratively listed as a district on the National Register of Historic Places.
1967 AD	Established	Springfield Technical Community College is established on Armory Square property, a few months prior to deactivation of the Armory and transfer of the site to the Commonwealth of Massachusetts.
1968 AD	Military Operation	Department of Defense deactivates the Armory in April 1968.
1968 AD	Land Transfer	34.61-acre eastern portion of 54.92-acre complex deeded to Housing and Urban Development, who in turn lease property to Commonwealth of Massachusetts for 30 years.
1968 AD	Moved	The Museum and Benton Small Arms Collection are transferred to the non-profit Springfield Armory Museum, Inc.
1968 AD	Established	Springfield Technical Community College (STCC) is opened on the 34.61-acre Commonwealth parcel that includes the Green and land to the north, east, and south of the Green.
1968 AD	Land Transfer	5 acres of city-owned parcel including the Main Arsenal (Building 13) and the Commanding Officer's Quarters (Building 1) are leased to Springfield Armory Museum, Inc.
1968 AD	Graded	Circa 1968, the parcel owned by the city is used as a recreational facility for Springfield City Schools. Fill is added to level playing fields.
1969 AD	Graded	Fill is added to land west of the Main Arsenal (Building 13) and north and west of the Commanding Officer's Quarters (Building 1). The leveled ground is used as playing fields for Springfield City Schools.
1972 AD	Removed	Officer's Quarters (Building 3) is demolished.

1973 AD	Built	Springfield Technical Community College (STCC) completes construction of the Humanities Building (Deliso Hall) on the north side of the Green.
1973 - 1974 AD	Removed	Officer's Quarters (Building 4) and the former Paymaster's Quarters (Building 17) are demolished.
1974 AD	Built	Springfield Technical Community College (STCC) completes construction of the Physical Sciences Building (Putnam Hall) on the north side of the Green.
1974 AD	Established	Congress authorizes Springfield Armory NHS.
1978 AD	Established	The Springfield Armory NHS is established, four years after it was authorized by Congress.
1978 AD	Land Transfer	The City of Springfield transfers ownership of 20.32 acres of land to the west of the Green to the National Park Service.
1978 AD	Moved	Springfield Armory Museum, Inc. transfers Museum and Benton Small Arms Collection to the NPS.
1980 AD	Removed	Circa 1980, Officer's Quarters (Building 2) is demolished and general area becomes a parking lot.
1981 AD	Excavated	Pits are dug along the top eastern edge of the ravine north of the Commanding Officer's Quarters (Building 1) to the Main Arsenal (Building 13) for an archeological survey of a proposed electrical line corridor.
1984 AD	Restored	Byers Street Gate is restored.
1984 AD	Excavated	Archeological survey pits and postholes are dug around the Main Arsenal (Building 13) at the site of a proposed drainage system.

1988 AD	Built	Springfield Technical Community College (STCC) constructs the Bio-Sciences Building (Anthony M. Scibelli Hall) on the north side of the Green.
2000 AD	Built	Circa 2000, the electric shed is installed east of the Commanding Officer's Garage (Building 18).
2002 AD	Restored	Restoration of the Byers and State Streets gate begins.
2002 AD	Excavated	A trench is dug along the length of the south side of the Green.
2003 - 2004 AD	Stabilized	Rehabilitation and stabilization of the West Arsenal (Building 11). The arsenal is presumed oldest extant building in Springfield.

## Statement Of Significance

Springfield Armory National Historic Site is historically significant under National Register Criterion A for the events encompassing the Armory's national contribution to military defense and advances in manufacturing in the late 18th through mid-20th centuries and for the event of Shays's Rebellion, and under Criterion C as an intact, representative example of 19th through early 20th century military campus landscape design. The site, located in Springfield, Massachusetts, has been significant to the history of the nation since the American Revolution, and the period of significance reflects the continuous importance of the Armory from 1778 to its phase-out as a military installation in 1967-1968.

The role of the Springfield Armory in the research, development, and manufacturing of arms for the United States military is the basis for its national significance. In 1777, General George Washington endorsed the site of the Springfield Armory as a strategic location for developing, producing, and storing guns and powder. During the Revolution, the site served as a storage building of equipage, storehouse, and cartridge manufacturing facility, operating as a supply depot for the entire northeast. The Armory was also the site of Shays' Rebellion, where Captain Daniel Shays and a small group of farmers angered by failed attempts to reduce taxes imposed by the new government, attempted to raid the arsenal on January 25, 1787. The attack was repulsed by the defending militia and the rebellion was suppressed in the following months by additional Massachusetts militia forces. This uprising helped to rally support for a stronger national government that could control such attacks, and indirectly contributed to the establishment of the Constitution.

Established by Congress in 1794, the Springfield Armory was the first manufacturing arsenal in the country (Harpers Ferry was established five years later in 1799). During the early nineteenth century, the Armory made important contributions to the military and American industry by developing techniques for manufacturing interchangeable parts, thus leading to the assembly line production method. The "Armory Practice" as noted and emulated by Europe was dubbed the "American System of Manufacture".

Along with Harpers Ferry, the Springfield Armory produced all of the small arms for the U.S. military for almost 174 years. Throughout its history, Springfield Armory's production was supplemented by private contractors. During the Civil War, Springfield Armory was the sole federally owned armory in production since at the beginning of the Civil War federal troops burned the Harpers Ferry armory and arsenal to keep them from the Confederacy. Until the late 1960's, the Armory served as a significant national source of arms and new weapons development. Throughout the Armory's nearly 200-year military history, the weapons produced at Springfield achieved an outstanding reputation for quality, accuracy, and dependability.

On December 19, 1960, the Armory Square area was dedicated as a National Historic Landmark, and listed on the National Register of Historic Places in 1966 with the adoption of the National Historic Preservation Act. Following a determination by the Secretary of Defense, the Armory was deactivated as a military installation in April 1968, since it was decided that producing military firearms would be more cost effective if done by the private sector. In 1974, Congress authorized the Springfield Armory National Historic Site. It was established four years later in 1978. The boundary contains the 54.92-acre Armory Square area defined by the National Historic Landmark district and National Register district. In addition to the historic buildings and grounds of the Armory Square complex, the Springfield Armory contains a large museum collection of weapons. Housed in the Main Arsenal (Building 13), the museum is now regarded as the nation's largest collection of small arms.

#### Landscape:

In 1778, the Continental Congress leased Armory Square from the City of Springfield. It was a public Green that had been the town's militia training grounds, surrounded by several homesteads. This Green was the kernel of later development. By 1780 the facility had expanded to include barracks and a cartridge shop loosely organized around the public Green. The physical layout of the national historic site continued to develop in the early 1800's when a series of commanding officers had the vision of building a "Grand National Armory." They intended to create a "majestic federal complex that reflected an aura of national strength and solidarity." (General Management Plan, 1986). The national historic site complex was laid out in a traditional military campus design, with the central Green and former Revolutionary War training ground serving as the organizational and spatial framework of the site. The addition of living quarters and manufacturing and storage facilities over time would respect the orientation, architectural character and open space of this central area.

The evolution of the grounds complex as a campus reflected the changing landscape design styles in the United States from the early 19th century through the early to mid-twentieth century. When the Springfield Armory first started to implement its grand vision, linear rows of trees were planted, often on axis with the surrounding architecture, geometrically framing circulation routes and connecting buildings. The sloping hillside along the western side of Armory Square was graded and terraced several times in an ongoing effort to overcome erosion problems originating from natural springs on the site. This area was heavily planted to serve as a majestic showcase for the Armory when entering from the center city.

The spatial arrangement of the Springfield Armory had a significant impact on the pattern of development in the city of Springfield. As the city grew in the early to mid 19th century along the banks of the Connecticut River, downtown expansion also occurred in a linear eastward direction from the river to the Armory. Because of the Armory's park-like campus configuration, mansions owned by Springfield's elite lined State Street along the south side of Armory Square and the surrounding neighborhood expanded to serve the workers.

Though the architectural and spatial qualities of the Springfield Armory remained relatively consistent from the late 1860's until the site closed in 1968, the landscape continued to evolve. As landscape design styles changed in the mid to late 19th century, gently curving walks and drives were added along the slope and around the Commanding Officer's Quarters (Building 1). Fountains, greenhouses, and gardens were added in the late 19th century and early 20th century to serve as an impressive showcase for the Armory. This time period during the early 20th century is considered the height of the grounds development as an impressive, well-tended display. Much of the ornamental qualities of the grounds were scaled-down during the mid 20th century, before the close of the Springfield Armory in 1968. The fountains were removed by the 1930's, and the rose garden and greenhouses were removed in the 1950's.

After the close of the Armory in 1968, the 34.61-acre eastern portion of the 54.92-acre complex was deeded to the Commonwealth of Massachusetts for the Springfield Technical Community College (STCC), and 20.32 acres west of the Green were acquired by the City of Springfield. During the next few years, significant alterations were made to the site, including demolition of the Paymaster's Quarters (Building 17) and Officers' Quarters (Buildings 2, 3, and 4), construction of new college buildings along the Green, additions to other existing structures, clearing of trees in portions of the Green for athletic fields, construction of additional surface parking, and filling of earth to level slopes.

Currently, a large percentage of open space of the STCC property not located on the Green is asphalt surface parking to accommodate commuting students of the community college. Though surface parking lots were present along the southeast and northeast perimeter of the property during the later years as an operational Armory, much of the open space north and northeast of the Green still retained an informal arrangement of shade and evergreen trees and clipped lawn.

The National Park Service-owned portion of the site, west of the Green (acquired from the City of Springfield in 1978), retains much of its late 19th century to mid 20th century character. The perimeter fence, the Main Arsenal (Building 13), and the Commanding Officer's Quarters (Building 1) have seen little change since 1864 and convey the site's historic character. During the time between the Armory deactivation and the National Park Service acquisition of the property, the City of Springfield filled a portion of the western slope to provide for school athletic fields. This eliminated the upper portion of a pedestrian path from the Byers and State Street entrance to the Commanding Officer's Quarters as well as the upper portion of the dirt road from the Byers and Pearl Streets entrance to the Commanding Officer's Quarters. Despite this alteration, the National Park Service site retains its historic park-like character of a sloping lawn with a mature canopy of large shade trees. The remaining walks and roadways retain their early 20th century historic character, and the wooded slope and ravine and the meadow (referred to as the Hayfield) to the west and north on the NPS property also retain much of their historic character.

## Physical History

### Introduction

This narrative divides the history of the Springfield Armory National Historic Site, into four time periods based on the stages of landscape development. The first covers the history of the site before there was a federal presence. The second, 1778 to 1864, addresses the early years, and the visions of its two leaders, Superintendent Roswell Lee and Superintendent James Ripley, and the steps in bringing those visions to fruition. During the third period, 1865 to 1968, the facility continued to be a successful research, development, and manufacturing center of small arms, the structural and spatial qualities of the site remained relatively constant and the landscape continued to evolve. Finally, the fourth period covers the years 1968 to the present. In these years the Armory was decommissioned, the manufacturing operations closed, and the National Park Service (NPS) and the Springfield Technical Community College (STCC) took over operation of the site.

For simplicity, Springfield Armory National Historic Site will be called Armory Square (also referred to in the text as the ‘site’), its local historic designation. Enclosed by a historic iron fence made by scrap including iron from Revolutionary War cannon, the organization of the Armory Square complex was structured around a central rectangular quadrangle, referred to hereafter as the Green [also called the square, the quadrangle, or the Parade in other references]. The Springfield Armory had five components within the City of Springfield: Armory Square and Federal Square (collectively known as the Hill Shops), the Water Shops, the Railhead Area Testing Facility, and the Magazine. Federal Square was located across Federal Street, on the adjacent block to the east of Armory Square. The Water Shops (formerly called the Upper Water Shops) was a manufacturing complex on the Mill River approximately one mile southeast of Armory Square. The Railhead Area Testing Facility, on Page Boulevard, was located approximately 1½ miles northeast of Armory Square. Federal Square, the Water Shops and the Railhead Area Testing Facilities are all currently in private ownership, and are not managed as cultural resources.

### Choosing the Site, Prehistory - 1777

Archeological studies on the Armory Square have yielded little prehistoric or historic evidence for this time period. The site was originally a pine barren (Lackay, 1989, p.6). Archeologists have not found any evidence of Paleo-Indian sites (15,000-8,000 BCE) on the upland terrain. Because the sandy bluff was well watered by springs, provided strategic views, and offered proximity to waterways and large game migration routes, it may have been a good site for Native American habitation. Archaic (8,000-1,000 BCE) settlements have been found nearby and were also likely to have occurred on the site. The sandy soil made the use of this area by Woodland Indians (ca. 1000 BCE – 1600 CE) unlikely due to their dependence on agriculture and use of clay pottery. State Street (formerly Stone Pit Road, Boston Road and Route 20), which runs along the southern most perimeter of Armory Square, was part of the overland transportation network during the Contact Period (1500 – 1630 CE) (Ibid. p. 9-10).

The city of Springfield began as a Puritan settlement in the early seventeenth-century. In 1636, William Pynchon, one of the original incorporators of Massachusetts Bay, led a group of emigrants from Roxbury, near Boston, to the area east of the Berkshire Mountains and just east of a bend in the Connecticut River in what would become part of Hampden County near the Connecticut state line in western Massachusetts. As can be seen on the following map [Figure 5], they settled along the water on

a one-half mile wide humpbacked sandy strip of land that was sandwiched between the river and a broad marsh, Hassocky Marsh. To the east of the marsh was a wooded sandy bluff, a natural terrace at the edge of a broad, desolate plateau. On the plateau was a pine barren that extended to the hillier terrain further east (Frisch, 1972, p.10). Armory Square would later be built on the plateau at the top of this bluff above Hassocky Marsh. The Puritan village slowly evolved over the next century and a half. In 1794, the noted traveler, Timothy Dwight, describes Springfield:

“The town is built on a single street, lying parallel to the river nearly two miles. The houses are chiefly on the western side. On the eastern a brook runs almost the whole length, a fact which is, I believe, singular. From the street a marsh extends forty [660 feet] or fifty rods [825 feet] to the brow of an elevated pine plain. The waters of this marsh are a collection of living springs.” (quoted in Frisch, 1972, p. 14).

Early in the year 1777, Brigadier-general Henry Knox, chief of artillery for the Continental Army, chose Springfield as one of the preferred locations for a “capital Laboratory” [meaning federal manufacturing facility]. It offered a strategic location that was isolated but accessible. He wrote in a letter, “Springfield is...situated on the Connecticut River, the great saving of transportation by water to and from any part of Newport, the Sound, New York or indeed to any part of the Continent” (quoted in Whisker, 1997, p. 3). The Connecticut River could be navigated by small commercial vessels, but not by larger ships like a British man-of-war (Whisker, 1997, p. 17). Springfield was at the crossing of two stagecoach routes that provided excellent land communication with the seaboard centers but was far enough inland to be reasonably safe from attack by land (Whittlesley, 1920, p. 61). Timber for gunstocks and charcoal was readily available in the area and economically transported by means of the river. In addition to the favorable location and raw material availability, an experienced labor pool was already at hand. There were already arms storage and manufacturing facilities in the area. In 1774, a provincial/state manufactory and arms storage facility had been established in Springfield under Richard Falley, the first commandant and later state armorer (Whisker, 1997, p. 2). In another letter dated April 6, 1777, Knox wrote, “And when the buildings Magazines &c Shall be erected in a Compleat manner the plain just Above Springfield is perhaps one of the most proper Spots in America on every Account” (quoted in Whittlesley, 1920, p. 17). Although this would soon become the Armory Hill site, it was not the first site in Springfield to be used by the newly declared national government for the manufacture of arms. In 1777, the Continental Congress rented a barn from Ebenezer Stebbins for the storage, manufacture, and repair of weapons (Whisker, 1997, p. 4). The barn was located to the rear of a building known as the Hitchcock House, located on Main Street and Emery Street, nearer the Connecticut River than the present Armory Hill site (Dvarecka, 1968, p. 9).

There was great demand for arms and munitions by the Continental army for the Revolutionary War effort. Even before legislative approval, General Washington and General Knox had begun productions in Springfield at whatever sites could be rented for that purpose. The facility was responsible for supplying arms and munitions for all engagements intended to repel or dislodge the British on the coastal fringe of New England, and all expeditions connected with Canada and the whole northern frontier (Whittlesley, 1920, p. 20).

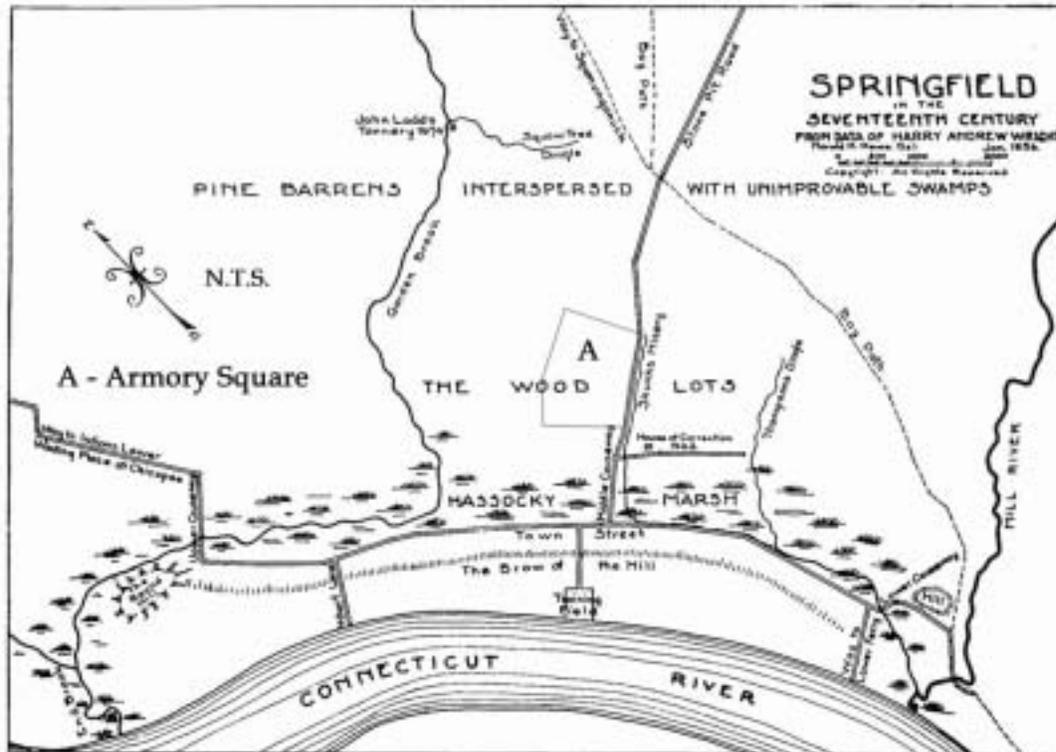


Figure 5. Springfield in 17th century (Frisch, 1972, digitally altered by SUNY ESF). Town St & Stone Pit Rd would later become Main St & State St respectively. Armory Square (A) was later built E of Hassocky Marsh.

### Building the Grand National Armory, 1778-1864

The beginning of the period of significance, 1778, marks the first federal arms storage, equipage, and repair facility at the Armory Square site. Manufacturing began at the site in 1794. Early in 1778 Col. Thomas Dawes was instructed to acquire the property that General Knox had deemed ‘one of the most proper Spots in America’ for a shop and powder magazine. Since previous Springfield Town Council actions had designated the site, a training field and common, to be held in perpetuity, the property was leased initially (Colton, 2002, p. 5). A cartridge shop, barracks, and magazine were erected in 1778 (Whittlesey, 1920, p. 25). According to a Springfield, ca. 1778-1800 map [Figure 6] the barracks were located on the northern portion of the current site and the cartridge shop was built to the south along the Boston State Road (extant State Street) (Ibid. p. 26). The barracks and cartridge shop do not exist today. The magazine on this map is probably the one built in 1782 or early 1783 to store the surplus stores of powder and arms from the Revolutionary War. The magazine was located on what is now Magazine Street on the Federal Square portion of the Armory Hill site and does not exist today (Lackey, 1984, p. 12).

In January 1787, because of the large number of arms and munitions in storage after the Revolutionary War, Armory Hill was the site of the critical battle of Shays’s Rebellion, a clash between New England farmers and merchants. In the first years of peacetime, before the Constitution was ratified, both the agrarian and commercial society appeared threatened by a strangling chain of debt. Many of the farmers were veterans who had returned from the fighting in the Revolution, having not been paid for their services, to find their lands heavily taxed to pay for the war. The farmers wanted the states to issue a circulating paper currency that would pay for their wartime services which they could in turn use to pay their taxes. The framers of the Constitution who favored a strong central government feared that

issuance of such a currency by each state independently would cause fiscal chaos. Because the farmers could not pay the state taxes, the states had no funds to repay the merchants, who had lent large sums to the states for the war effort. The merchants had little or no readily available funds and faced bankruptcy instead of the hoped for economic expansion. The farmer-veterans, many facing debtors prison for non-payment of taxes, rebelled and tried to gain possession of the arms and munitions stored at the cartridge shop and magazine on Armory Hill. A militia, mustered with funds from merchants, defeated the farmer-veterans. "Shays's Rebellion had a generally unifying effect upon the supporters of a stronger national government, and it was a lesson frequently invoked on the floor of the Federal Convention during the summer of 1787. George Washington gave the insurrection as a reason for his own attendance at the Philadelphia convention." It encouraged "some to favor the 'Virginia plan' (which called for an unprecedented and powerful central government) over the alternative 'New Jersey plan' (which seemed too favorable to state sovereignty)." The Virginia plan for the U.S. Constitution was chosen, in some part due to the events surrounding Shays's Rebellion. (<http://www.calliope.org/shays/shays2.html> 2004). Little documentation is available through secondary sources on the details of the action that occurred within Armory Square. This is the only instance of a military confrontation on the site.

In 1794, a congressional act empowered George Washington to establish two national armories. The one in Springfield, Massachusetts was established that year, and the other one in Harpers Ferry, Virginia was officially established in 1799. David Ames was the first superintendent of the Springfield Armory. Robert Orr, the first master armorer, had a work force of forty men (Dvarecka, 1969, p. 19). The location of many of the early Armory buildings defined a spatial pattern that was to remain throughout the Armory's history. The manufacturing operations were sited on the east and northeast sides of the Armory Hill site. Storage or arsenal facilities were on the south side, and living quarters on the west and northwest sides. A few structures were located directly on the Green. After an 1801 fire destroyed the buildings located on the Green, the quadrangle remained open. Subsequent building construction around the perimeter of the Green reinforced the Armory's military [or campus] spatial organization. (Raber, 1989, p. 3).

In 1798 the Commonwealth of Massachusetts passed an act authorizing the United States to purchase land from the town of Springfield, not to exceed 640 acres (Dvarecka, 1968, p. 18). On June 25 of that year the Springfield Town Council approved the establishment of the federal arsenal, not to exceed 60 acres (Whisker, 1997, p. 18). The laboratory or manufactory buildings at that time occupied about 10 acres on land that the federal government did not own. Early in 1800 the Military Storekeeper, in a communiqué to the Secretary of War stressed the importance of purchasing the land in order to permit placing the buildings farther apart, thus reducing the fire hazards. In August 1801, the federal government purchased the first parcel of land, "30 acres, 2 roods and 14 rods" (a rood is ¼ acre and a rod 16.5 feet), from the City of Springfield. The largest portion of this purchase, nearly 30 acres, is part of the current Armory Square site and included the 10 acres on which the federal buildings then stood. A smaller, 30-rod portion, where the magazine was located, was to the east on the site that would become Federal Square (Whittlesey, 1920, p. 67-8). [All early deeds to real estate for the Springfield Armory are well-documented (Ibid. p. 293-298).]

The first period of extensive construction on the Armory Square site occurred between 1807 and 1812 (Whittlesey, 1920, p 71). During this period, the West Arsenal (Building 11) was built on the southern side of the Green in 1807-08, and in 1809, construction of two brick buildings defined the northeastern corner of the Green. One was a two-story stocking and filing shop, the earliest portion of the extant Shop Building (Building 27). The other building was a one and one-half story forging shop that burned and was rebuilt in 1824, and later became the base of the North Shop and the core of the northern wing of extant Administration Building (Building 16). (Whittlesey, 1920, p.72).

Roswell Lee, Superintendent of the Springfield Armory from 1815 to 1833, viewed the armory as a metaphor for America's growing military strength and developed the site to appear strong, organized and imposing (Albright, 1978, p.5). In his own words, Lee viewed Springfield Armory to be "a GRAND NATIONAL ARMORY" (Lee correspondence to the Secretary of War, Whittlesey, 1920, p. 120). He acted accordingly. The slipshod method of handling tools and raw materials annoyed him, and the custom of carrying alcoholic liquors into the shops, and the betting, treating, and rough playing which the workmen regularly indulged in, outraged him. He determined to put a stop to evils which he saw at the root of discipline and efficient workmanship. (Whittlesey, 1920, p.111)

Lee reorganized the operations. For example, through pay scale adjustment and line of production and fiscal approval, he established the Superintendent, as opposed to the Paymaster or the Master Armorer, to be in charge of over-all operations (Ibid. p. 117). He set regular business hours and wage scales for the administration and workmen (Ibid. p. 122). He instituted quality control through inspection to assure that production at the national sites, as well as at other sites under contract, met specifications (Ibid. p. 122). It was during his tenure that the mode of production began the transition from master/apprentice based to machine/assembly line based (Ibid. p. 130). He stopped the practice that permitted neighbors to graze their animals on public ground (Ibid. p. 113-4). Workmen, who had previously occupied housing in the Armory Square complex, were charged rent. Previously they had stayed free of charge (Ibid. p. 114).

Along the west side of the Green, the road was a through street. There appeared to be internal roadways at the north and east sides of the Green. The northern, southern, and western boundaries of Armory Square were less well defined and inclusive than in later years. Private parcels were located on the steep slopes to the west and north. The Armory had five or possibly six points of entry/egress; three to the south along the road to Boston (now State Street), two to the north in the vicinity of what would become Pearl Street, and possibly one to the west.

The site as it appeared in 1823 is described in an inspection report by an inspector from the Ordinance Office of the War Department:

"The original site of this manufactory was also a military post, which is a perfectly level elevated plat, situated about half a mile east of the village, from which there is a gradual ascent, flanked on the north by a deep ravine and on the south by a less considerable one, with an extensive plain spreading in the rear, the adjacent parts being uncovered, fronting on the brow of the declivity, and commanding an extensive and beautifully variegated landscape... the whole assuming a handsome and regular appearance... On the whole, it is believed that there is not a situation in the United States where arms can be made for a less sum, and where so many important advantages combine, as renders this station eligible for a grand National establishment." (quoted in Albright, 1978, p. 6-7).

Between 1819 and 1924, three buildings were constructed on the eastern side of the Green: a two-story brick office and chapel (1819), the North Shop (1824) and the South Shop (1824). [The three of the buildings are incorporated within the Administration Building (Building 16).] In the same year, the East Arsenal (Building 15) was constructed on the south side of the Green. In 1830, the three-story Middle Arsenal (Building 14) was built on the south side of the Green between the East and West Arsenals. The ca. 1830 illustration of the southeastern corner of the Green [Figure 10] showed all of these buildings except for the West Arsenal (Building 11).

The genesis of the landscape during Lee's tenure (1815 to 1833) is documented in two plan views of the

site: a c. 1820-24 map and an 1830 plan view. [Figures 7 and 8]. The key spatial organization of Armory Square is apparent in both plan views. The c. 1820-24 map [Figure 7] showed the Green and the buildings lining its perimeter. None of the buildings on the National Park Service property today existed at that time. A "Liberty Pole" was located slightly north of the center of the Green on this plan. The pattern of buildings was not as rigid and organized as appeared in later years. Setbacks from the square and surrounding roads were not totally uniform and symmetrical. The pay office, Superintendent Lee's Quarters, buildings labeled "Cyrus Foot," "David Orcott," and "Eldad Stebbins", and a schoolhouse were to the west of the Green on what is now the NPS property.

The 1830 plan view of Armory Hill [Figures 8 and 9] shows the location of numerous shade and street trees throughout the Armory in formal, linear patterns. The Green's perimeter was lined with trees and three east-west lines of trees traversed the Green. The rows of trees ran parallel, but not spaced equidistant from each other. A north-south row of trees intersected the east-west tree lines, slightly east of center. Paths traversing the Green exhibited a less formal pattern than right-angled tree rows, and likely reflected convenient patterns of movement between the buildings on the Green. Several of the residences located on the map adjacent to the square had trees located in their immediate yards. State Street appears on the plan to be a wide boulevard, lined by shade trees. East of present-day Federal Street, a row of shade trees run down the centerline of the road.

The presence of abundant hillside springs made both the land to the west, at the edge of the bluff, and along the Boston Road (State Street) spongy, and springtime erosion of the sand produced unsightly gullies. Lee attempted to alleviate the problem through grading and drainage, but could not successfully carry out the project because of the "sharp cut" the Boston Road made going from the hill to the river terrace (Ibid. p. 146).

During the time of Lee's tenure there are records that twenty-five houses, on land purchased for future expansion, were rented to forty-one officials and workmen, and their families. The superintendent, Master Armorer, and three clerks occupied rent-free quarters (Whittlesey, 1920, p. 152). In 1833, near the end of his superintendency, two mirror image brick Greek Revival houses were built flanking Superintendent Lee's Quarters on the west side of the Green, the Paymaster's Quarters (Building 17), and the Master Armorer's Quarters (Building 10). Between 1833 and 1936, four additional Greek Revival style Officer's Quarters (Buildings 4, 7, 8, and 9) were also built.

Lee's superintendency ended with his ill health and death in 1833. The years from this time until the arrival of Superintendent James Ripley in 1841 were unmarked by any changes in the landscape save for painting some of the buildings (Albright, 1978, p. 17). Superintendent Ripley requisitioned funds and approval for the improvement of building and grounds within months of his appointment as Commanding Officer. Funds were not immediately forthcoming (Ibid. p. 21). But, during his tenure, from 1841 to 1854, he would succeed in implementing improvements that continued Lee's vision, improvements in which the buildings and grounds blended to compose a formal and spacious complex.

At the beginning of Superintendent Ripley's tenure a serious rift existed in the community centering on the "question of military versus civilian control of the Armory." (Whittlesey, 1920, p. 179). Superintendent Ripley, trained at West Point, was a commissioned officer in the Ordinance Department of the United States Army and a proponent of military control. (Whittlesey, 1920, p. 179) The situation was exacerbated when Ripley closed the manufacturing operations of the Armory for repairs from August to December 1842, thereby discharging or suspending nearly the entire workforce. Some accused him of using the situation to refuse work to those who opposed him in his contemplated reforms (Whittlesey, 1920, p.184). In December and January, three fires broke out, two of which could be

attributed to arson.

In a December 1842 correspondence, Ripley wrote of the need for “a high and permanent fence” because of “the temper and disposition manifested by the rabble... it being such as to excite, if possible, still stronger fears than have heretofore been entertained for the safety of the public property of the post” (quoted from Springfield Armory Correspondence Files, *Ibid.* p. 186). In addition to a fence, Ripley’s plans for improving the grounds included purchasing additional land to the north and west of the Green, grading and planting trees, laying out roads around the margin, and constructing new buildings on a comprehensive scale (*Ibid.* p. 189).

Steam power was installed in the Water Shops in the mid-1830s, as a supplement to waterpower. With the advent of the steam-powered engine, manufacturing operations became less dependent on waterpower, less centered at the Water Shops and more concentrated at Armory Hill. Ripley wrote in 1845:

“The utility of steam power at this establishment is essentially felt in its being so constantly available at all times during working hours entirely unaffected by the frosts of the winter or the drought of summer by both which our operations by Water are often seriously interrupted...The exhaust steam is conducted in pipes through the departments of the shop and is a safe and effectual method of warming the room whereby stoves and fuel are saved.” (quoted in Whittlesey, 1920, p. 196).

Two brick cisterns were excavated in 1845 to improve fire protection capabilities. One, with a 30,000-gallon capacity, was located a few yards just north of the northeast corner of the extant Main Arsenal (Building 13) on the current NPS property. The other, with a 700,000-gallon capacity, was in the northeast corner of Armory Square, north of the extended machine shop at the site of the extant Property and Manufacturing Building (Building 20).

In 1843, Ripley had Superintendent Lee’s Quarters torn down (labeled Col. Roswell Lee’s Residence on the plan view, Figure 9). Construction began on a brick, Classical Revival style Commanding Officer’s Quarters (Building 1) in 1845 and was completed in 1846. (Rettig, 1974, Description (1)). By 1847 ground had been broken for the Main Arsenal (Building 13) and the Long Storehouse (Building 19). As can be seen in an 1850 illustration [Figure 11] the imposing scale of the three-story Main Arsenal (Building 13) dominated the western end of the Green. A prominent visual landmark, the Main Arsenal was completed in 1850 and appeared on the city of Springfield official seal, adopted in 1852 (*Ibid.* Description (1)). The view from the tower became a popular attraction for tourists and other visitors (Abbott, p. 159). The Long Storehouse (Building 19), with its cavalry caserne style architecture near the northern edge of Armory Square, was also completed by 1850 and then extended in 1863 to its present size.

Also in 1847, the access streets traversing the Green were closed to the public (Whittlesey, 1920, p. 197). After the purchase of additional parcels of land for the site, extensive grading and grounds improvement took place. The 1850 Secretary of War’s annual report on the Springfield Armory listed a number of these improvements. The topography north and south of the Long Storehouse (Building 19) and west of the Main Arsenal (Building 13) was manipulated by moving about 126,000 cubic yards of cut and fill. A 2,000-plus foot culvert system was installed on the east side of the Main Arsenal to direct water away from it and the surrounding grounds. About 9,600 square yards of sod was laid on the slopes north of the Main Arsenal and the Long Storehouse. The interior road running along the east side of Armory Square parallel to and east of the North Shop, the Office Building, and the South Shop (Building 16 on the current STCC campus), was graded and graveled. A walk was completed across the

south side of the Green (Albright, 1978, p. 31). In addition, Superintendent Ripley reported, “The side walks on the North, South, & West of the Square [the Green] have been paved with flagging stone, consuming 17,205 superficial feet...Street lights [gas] have been erected around the principal square” (quoted in Albright, 1978, p. 32).

Abbott, in “a mid-Victorian literary style that treated overstatement as the norm” (Albright, 1978, p. 41), described Armory Square in 1852:

“On reaching the summit of the ascent, the visitor finds himself upon an extended plain, with streets of beautiful rural residences on every hand, and in the center a vast public square occupied and surrounded by the buildings of the Armory. These buildings are spacious and elegant in their construction, and are arranged in a very picturesque and symmetrical manner within the square, and along the streets that surround it. The grounds are shaded with trees; the dwellings are adorned with gardens and shrubbery. Broad and neatly kept walks, some graveled, others paved, extend across the Green or along the line of the buildings, opening charming vistas in every direction. All is quiet and still. Here and there a solitary pedestrian is seen moving at a distance upon the sidewalk, or disappearing among the trees at the end of an avenue; and perhaps the carriage of some party of strangers stands waiting at the gate. The visitor who comes upon this scene on a calm summer morning, is enchanted by the rural beauty that surrounds him, and by the air of silence and repose which reigns over it all. He hears the distant barking of a dog, the voices of children at play, or the subdued thundering of the railway-train crossing the river over its wooden viaduct, far down the valley – and other similar rural sounds coming from the distance through the calm morning air – but all around him and near him is still. Can it be possible, he asks, that such a scene of tranquility and loveliness can be the outward form and embodiment of a vast machinery incessantly employed in the production of engines of carnage and death.” (Abbott, 1852, p. 146). Figures 12 and 13 show Armory Square, the Main Arsenal (Building 13) and the Commanding Officer’s Quarters (Building 1) as they appeared in Abbott’s article.

The appearance, scale, weight, and function of a picket and high board fence installed around the site between 1841 and 1844 ultimately did not satisfy Superintendent Ripley. In 1847, after the government had acquired the final parcels of land for the Armory Square site he began planning an ornamental iron fence for the perimeter. On August 16, 1847, Ripley leased a local quarry (Whittlesey, 1920, p. 198). This native bedrock, fine-grained red Longmeadow sandstone, would be used for the foundation, low base wall, and nine-foot halberd-headed posts of the fence and gates. The ironwork design featured alternating forms of iron palings, round with spearheads and slightly lobed with pike heads. The iron gates were more intricately patterned. Oval center sections surrounded by lacy ironwork were to be superimposed on the vertical palings (Rettig, 1974, Description (3)). The design and casting of the fence had to be postponed until 1852 because of the prohibitive costs. To circumvent this prohibition Ripley used scrap iron already in the government’s possession. By mid-1853 the State Street length of the fence and an outer brick sidewalk up the hill to the main entrance at the crest of the hill was completed (Whittlesey, 1920, p. 198). Insufficient funding persisted and only the State Street section the fence was completed during Ripley’s tenure (Ibid. p. 198).

In 1854, the political currents shifted. Legislation signed by President Franklin Pierce changed the leadership of the Springfield Armory from commissioned officer back to civilian superintendent. In October of that year, Superintendent Ripley accepted another assignment and Superintendent James S. Whitney was appointed. During his final months at Springfield Armory, Ripley had the entire site freshly painted and landscaped (Albright, 1978, p.46).

Whitney remained superintendent until March 1860. Whitney oversaw completion of the Federal Street

section of the fence in 1856. Whitney had transferred the iron-casting contract to a local foundry, Ames Manufacturing of Chicopee, and the sandstone was obtained from a regular purveyor, A. S. Dwelly of Longmeadow. The stone and castings for the Byers and Pearl Street sections of the fence were stored on site waiting for these two streets to be constructed. The Byers Street perimeter of Armory Square was fenced in 1860 and the Pearl Street section was completed by 1862 (Albright, 1978, p. 211). Besides advancing construction of the perimeter fence, Whitney had continued grading and planting the grounds, much in the spirit of his predecessor. Due to the hillside springs and the seasonal freeze/thaw cycles the terracing below the Main Arsenal (Building 13) was not stable. In order to improve this area, the terraces were regraded in 1856-57, the result a more even and gradual slope. The regrading allowed brick culverts installed in 1849 and 1855 to carry excess water off site, into State Street. (1857 Report of Operations, Springfield Armory Correspondence Files, quoted in Whittlesley 1920, p. 213). Whitney's 1859 "Report of the Principal Operations at the Springfield Armory" reported, "nearly 800 Shade Trees have been put out." (Whitney, 1859)

At the beginning of the Civil War, in 1861, Congress reassigned the leadership of the armory to military control. An 1860 perspective illustration [Figure 14] showed the scale of the facility, the park-like landscaping, and the rural character of the environs to north. In 1864, the North and South Shops were joined with the office and chapel building, a third story was added, a five story square tower (echoing the tower on the Main Arsenal) was erected on the west façade on the Green, and a five columned Doric portico was built on the east façade. This large building, known as the Administration Building (Building 16), enclosed the east end of the Green.

The civil engineering and surveying firm of Shedd and Edison, 42 Court Street, Boston, prepared a topographical plan of the site in 1864 [Figure 15]. This is considered the turning point in the documentation of the evolution of the landscape at Springfield Armory that established the practice of carefully recording changes by means of maps, plans, photographs, and illustrations (Albright, 1978, p. 52-3).

Bordering the boundaries, on the tree belt between sidewalks and streets and within the perimeter of the fence were evenly spaced, straight lines of trees, reiterating and softening the fence's martial character. There were also lines of regularly spaced trees along some of the interior roads. Roads entered Armory Square at four sites. The main entrance gate and gatehouse was on State Street. There were two gates on Federal Street one in front of the Administration Building (Building 16) and the other near the manufacturing operations. The fourth gate was at the corner of Byers and Pearl Streets. This gate was the exit/entrance of a road that began at a large circle to the south and in front of the Commanding Officer's Quarters (Building 1). The lower portion of the property traversed by this road served as a hay field (Albright, 1978, p. 52-3). There was a smaller circular drive that serviced the back entrance to the Commanding Officer's Quarters from the Green. There was a ravine and steep slopes to the north of the Commanding Officer's Quarters that continued along the northern, Pearl Street side of Armory Square. The slopes were more gradual around the perimeter to the south and west. On these more gentle slopes and on the Green the trees were planted in a park-like informal pattern. The trees were primarily silver maple (*Acer saccharinum*), American elm (*Ulmus americana*), and spruce (*Picea* sp.). (1913 Forest Service report referenced in Albright, p. 55) Little evidence remained of the formal rigid tree lines of the 1830's on the Green. In contrast, the walks across the Green were formal, axial and divided the Green into four quadrants of unequal sizes. The walk from the Administration Building (Building 16) to the Main Arsenal (Building 13) followed the main axis. Nearer the Green, rectilinear garden or field plots to the north of the Commanding Officer's Quarters (Building 1) and Officers' Quarters (Buildings 2, 3, and 4) were laid out in rows suggesting that their function was utilitarian rather than decorative. The circular island in the drive/entrance to the north of the Commanding Officer's Quarters and the plot



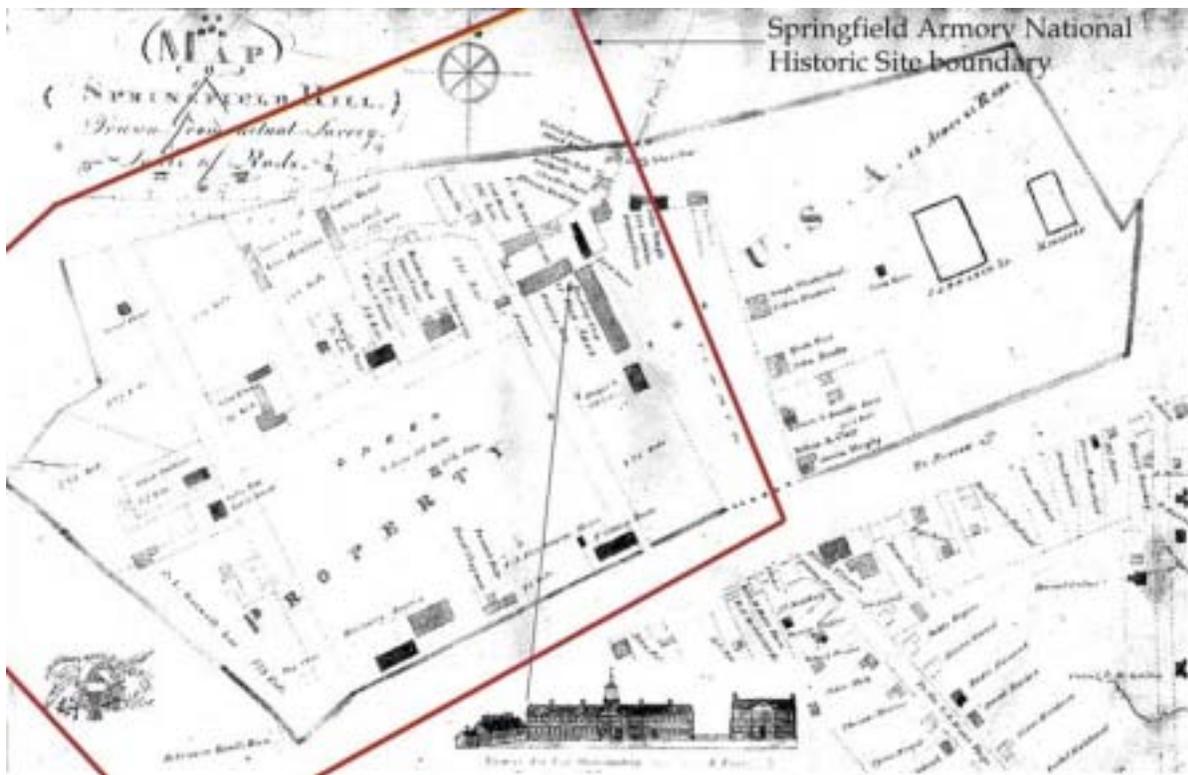


Figure 7. Springfield Armory Hill Shops plan, not to scale, c. 1820-1824. Perspective at center bottom is view of NE building facades on Green. (X1322-SA.1, SPAR archive photo files, digital annotation by SUNY-ESF)



Figure 8. A plan view of Armory Hill, 1830 – 1831, not to scale, as it was toward the end of Superintendent Roswell Lee's tenure (11 x 17 in Appendix) (SPAR archive photo files, digital annotation by SUNY-ESF).

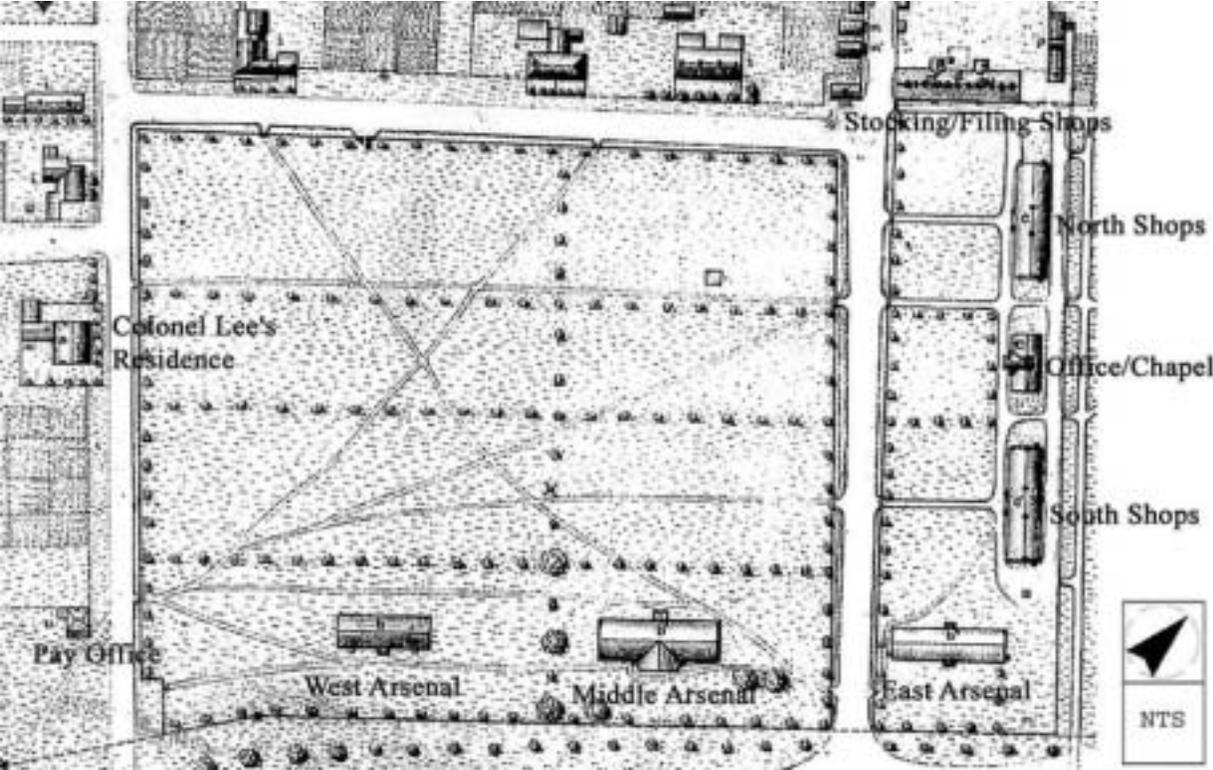
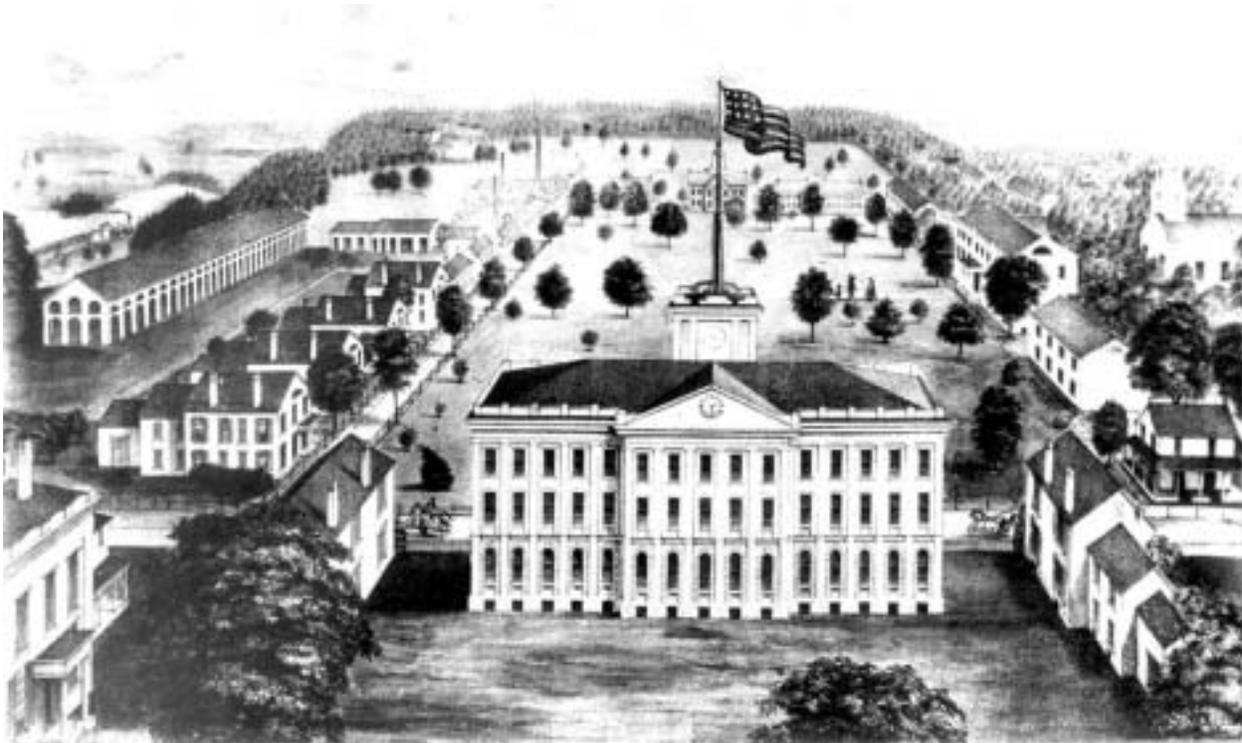


Figure 9. Enlargement of the Green as shown on the plan of the Armory Hill, 1830 – 1831 (see the preceding plan). (SPAR archive photo files, annotated by SUNY-ESF)



*Figure 10. The SE corner of Green, ca. 1830: from left to right, the W facades of end of North Shops, the Office & South Shops and N and W facades of East Arsenal (Building 15) & Middle Arsenal (Building 14). (SPAR archive photo files)*



*Figure 11. 1850 illustration of Main Arsenal (Building 13), with Commanding Officer's and the Master Armorer's Quarters (Buildings 1 and 10) to left, Paymaster's Quarters (Building 17) to right & Green behind it. (SPAR archives photo file)*

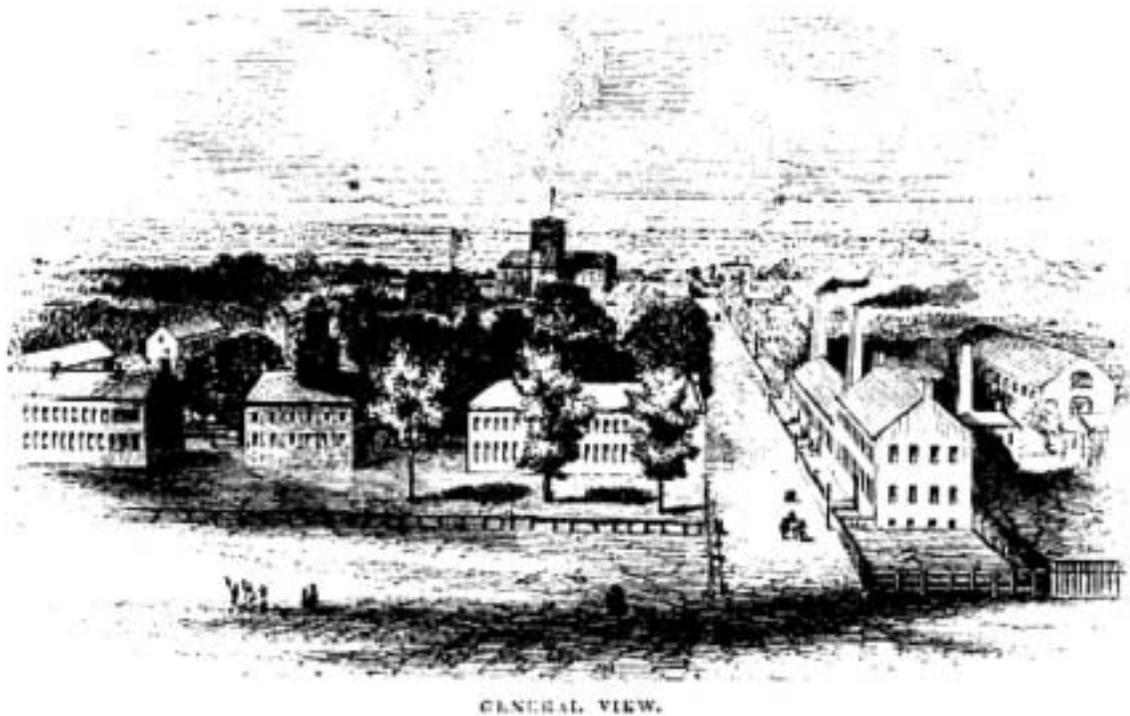
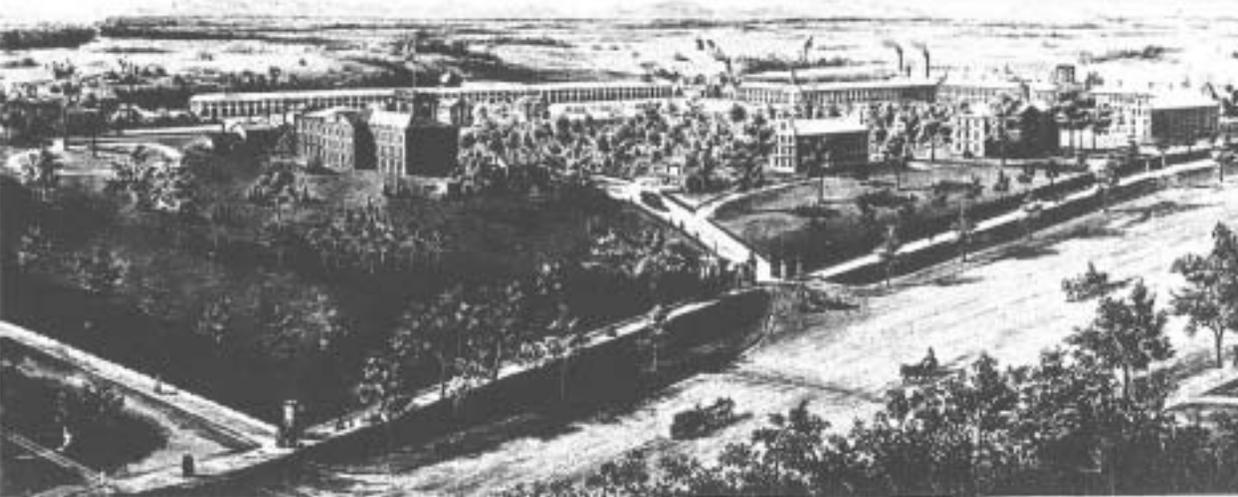


Figure 12. General view of Armory Square looking west with the Main Arsenal (Building 13) at center back, 1852. (Abbott, 1852, p. 145)



Figure 13. Left: The Main Arsenal (Building 13) as viewed from the northwest corner of the Green, 1852. (Abbott, 1852, p. 159) Right: Front façade of Commanding Officer's Quarters (Building 1), 1852. (Abbott, 1852, p. 160)



*Figure 14. 1860 perspective illustration of Armory Square as viewed from the south/southwest with State Street crossing diagonally at the bottom.*

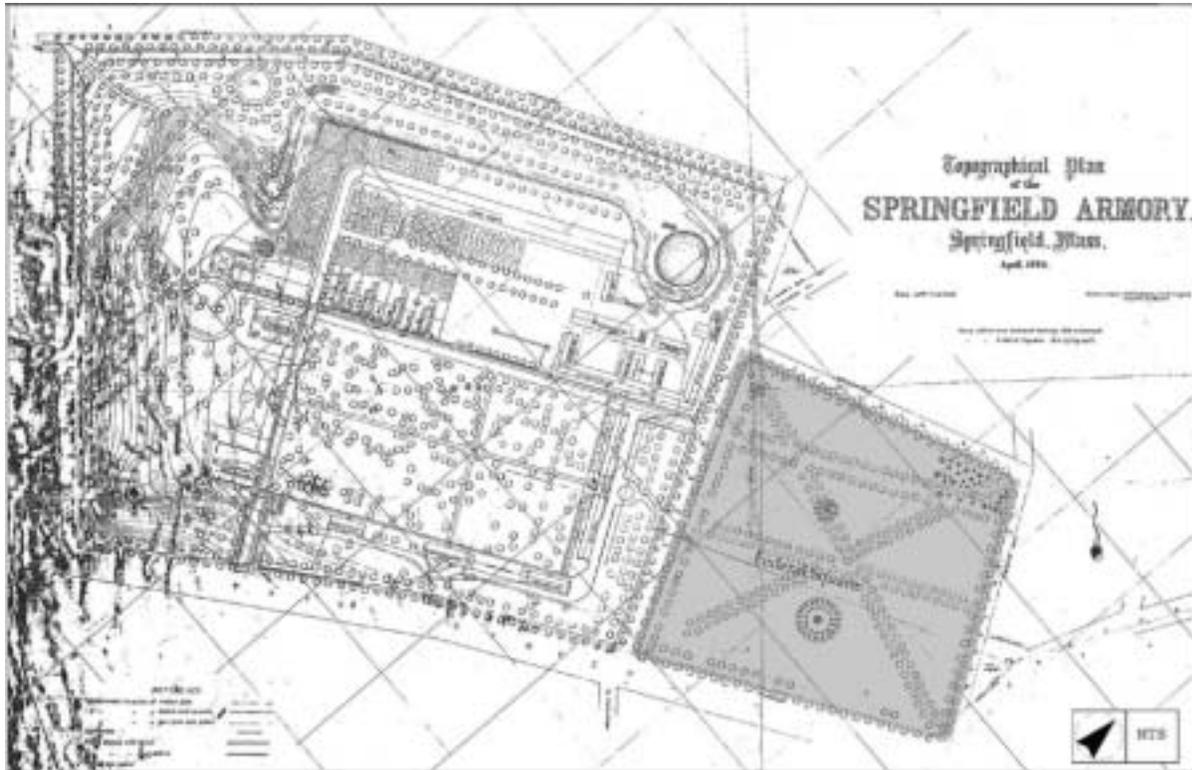


Figure 15. 1864 Topographical Plan of Armory Hill by Shedd and Edison (11" X 17" in Appendix) (SPAR archive map files). Federal Square (digitally annotated by SUNY-ESF) is not part of the Springfield Armory National Historic Site.

## Maintaining the Armory, 1865-1968

Over the next century as the City of Springfield grew and prospered, the landscape around Armory Hill became more developed. The Springfield Armory continued to be a successful research, development, and manufacturing center for small arms. Though the structural and spatial qualities of Armory Square remained relatively consistent from 1865 until the site closed in 1968, the campus-like landscape continued to evolve. The sloping hillside along the western side of Armory Square, having been graded and terraced several times in an ongoing effort to overcome erosion problems originating from natural springs on the site, was heavily planted to serve as a majestic showcase for the Armory when entering from center city. The early 20th century is considered the height of the grounds development, but by the mid 20th century the ornamental qualities of the grounds were scaled-down. The research, development, and manufacturing operations were gradually phased out in the early 1960s and the Springfield Armory was closed in 1968.

The spatial arrangement of Armory Hill had a significant impact on the pattern of development of the city of Springfield. Figures 16 and 17 show the overall 1875 birds-eye view of the City of Springfield and a detail of the Armory Hill area respectively. As the city grew in the early to mid 1800's along the banks of the Connecticut River, downtown expansion also occurred in a linear eastward direction from the river to Armory Hill. Because of Armory Hill's aesthetically pleasing park-like campus configuration, mansions owned by Springfield's elite lined State Street along the south side of Armory Square and the surrounding neighborhood expanded to serve middle class families (Albright, 1978, p. 57-60). A small commercial district sprang up near the corner of Federal and State Street [Figure 18].

Construction at Armory Square followed the general patterns already established. The following structures, built or moved between the late 1800's and the mid-1900's, can be located on the 1957 Plan of the Springfield Armory Hill Shops [Figure 19]. A Second Empire style duplex Officers' Quarters (Buildings 5 and 6) was built on the southwest corner of the Green in 1870. Sometime between 1877 and 1882 the Master Armorer's Quarters (Building 10) was moved from its site north of the Main Arsenal (Building 13) to a new site across the road and to the north where it currently stands. Two brick Greek Revival style Officers' Quarters (Buildings 2 and 3) were built on the northern edge of the Green at the northwest corner in 1894 and 1898. Although secondary sources do not mention it, some of the existing houses on the northern side of the Green [Figure 15] would need to have been removed before the Officers' Quarters (Buildings 2 and 3) were built. The Paymaster's Quarters (Building 17) was moved from its site south of the Main Arsenal to the north side of the Green.

State Street was regraded in 1875, making the grade at the State Street entrance too steep to be used as a vehicular entrance. Steps were built on the slope at this entrance and a smaller pedestrian gate replaced the larger gate. A new entrance and octagonal gatehouse [Figure 20] was added at the Byers and State Street corner. In 1876, a memorial was built along the north side of the gently curving entrance drive from the Byers and State Streets gate [Figure 21]. This memorial is briefly mentioned in several reports as either commemorating the centennial or Civil War and is described as an ivy covered stone monument with cannon and cannon balls (Albright, 1978, p. 64, and General Management Plan, 1986, p. 19). Cannons were a feature on the Green and the west slope during this time [Figure 22].

When the Springfield Armory first started to implement Lee's grand vision in the 1830's, linear rows of trees had been planted, often on axis with the surrounding architecture, geometrically framing circulation routes and connecting buildings. The landscape had become more naturalistic by the late 19th century, thereby reflecting the changing styles in landscape design occurring throughout the United States during this period. Two late 19th century photos [Figures 23 and 24] of the Main Arsenal

(Building 13) taken from the Green, show a park-like campus setting. In the late 1890's a drive that curved around the south and west sides of the Main Arsenal was built to connect the road along the western side of the Green and just east of the Main Arsenal to the circular drive in front of the Commanding Officer's Quarters (Building 1). Around the same time a flagstone walk was built from the Byers and State Streets gatehouse, along the north side of the entrance road to the Green.

The landscape near the Commanding Officer's Quarters (Building 1) also reflected changing landscape and gardening styles. Two large greenhouses, referred to as "root and propagating houses" on archive photos, were built in 1902 east of the ravine and to the northeast of the Commanding Officer's Quarters [Figure 25]. From the late 1800's to the mid 1900's ornamental shrub and perennial gardens, including a rose arbor in the circular drive behind the Commanding Officer's Quarters, surrounded this residence [Figures 26 and 27]. Sometime in the late 1800's, a pool and fountain were added between the Main Arsenal (Building 13) and the Commanding Officer's Quarters (Building 1) [Figures 25 and 28].

Outdoor recreational facilities were added during the early 1900's. There was a tennis court on the west side of the Main Arsenal (Building 13) built in 1910 [Figure 25]. The pavement for the court is still on the site but is no longer used for tennis. For several decades in the mid 1900's there was a swimming pool between and behind the Officers' Quarters (Buildings 3 and 4) on the north side of the Green. [Figure 19].

After the East Armory and the Administration Building (Buildings 15 and 16) were joined in 1919, the southeast corner of the Green was completely enclosed and the structures around the Green remained in this configuration for the next 50 years. The Commanding Officer's Garage (Building 18) was built to the east of and near the Commanding Officer's Quarters (Buildings 1) in 1933.

A hurricane left large gaps in the mature tree canopy in 1938. Much of the ornamental qualities of the grounds were scaled-down during the mid 1900's. The fountain and pool, between the Main Arsenal (Building 13) and the Commanding Officer's Quarters (Building 1), and the rose garden behind this residence were removed in 1958. A 1959 plan documented the existing conditions and identified the trees on the site [Figure 29].

The research, development, and manufacturing operations were gradually phased out in the early 1960's. In April 1963, Armory Square was designated a National Historic Landmark and was listed as a National Register Historic District in 1966. Figure 30 shows an aerial view of the facility taken in 1966. The Springfield Armory was deactivated as a military installation in April 1968, and the ownership of Armory Square site was transferred to the Commonwealth of Massachusetts and the City of Springfield.



Figure 16. An 1875 Birds-eye View of the City of Springfield with Springfield Armory locations marked: A –Armory Square, F – Federal Square, W – Water Shops (<http://lcweb.loc.gov/rr/geogmap/gmpage.html>).

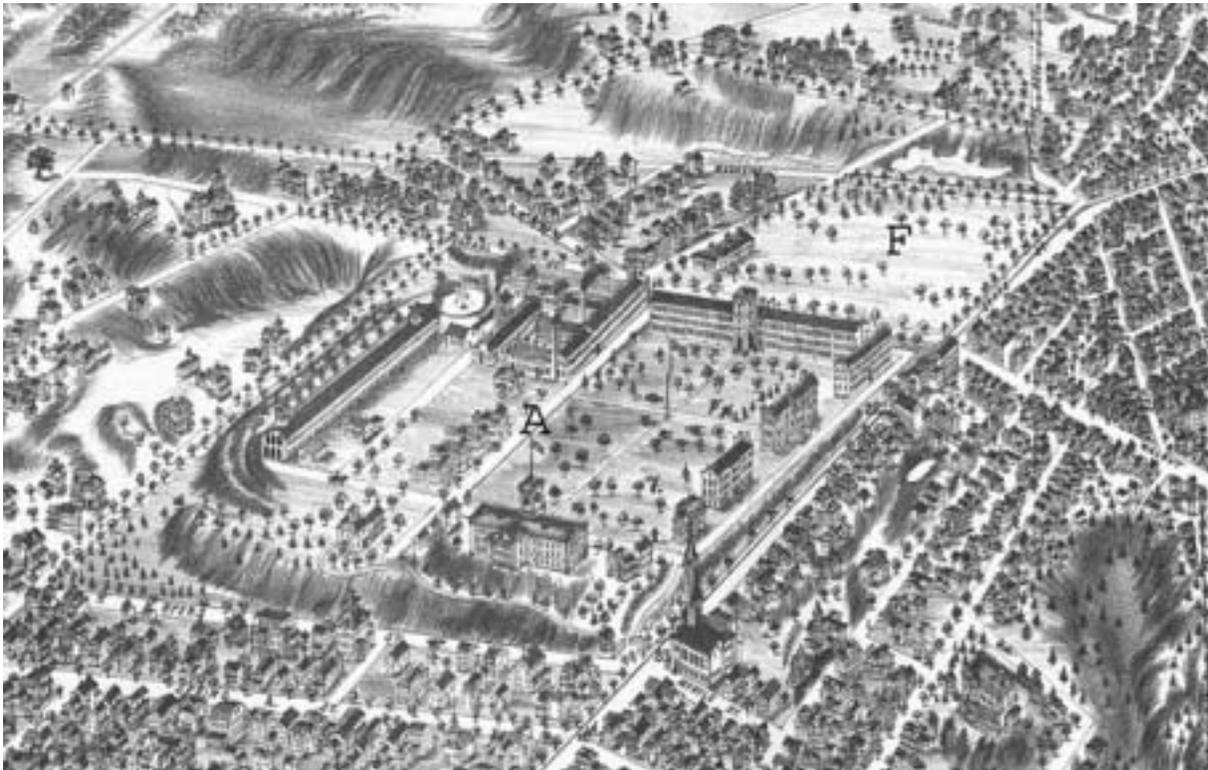
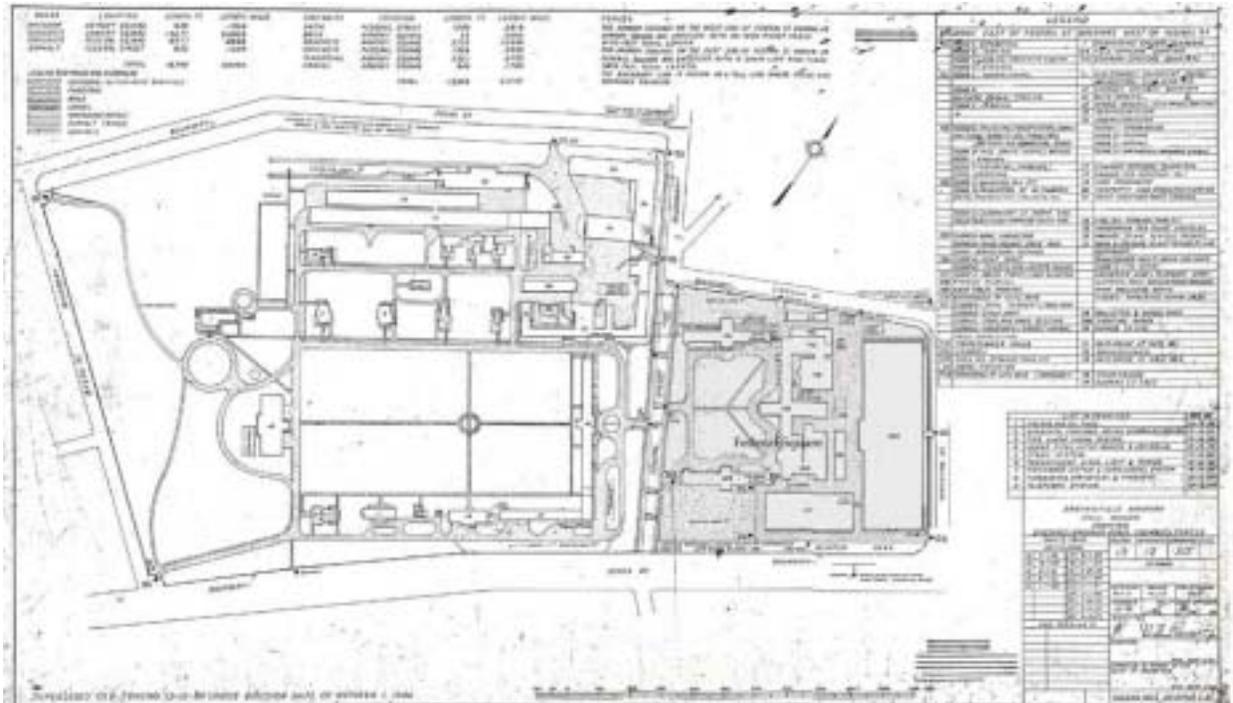


Figure 17. An enlargement of Figure 16 shows Armory Hill from the 1875 Birds-eye View of the City of Springfield: A – Armory Square, F – Federal Square (<http://lcweb.loc.gov/rr/geogmap/gmpage.html>).



Figure 18. Streetscape looking east along State Street, 1891: Noteworthy in this photo were the iron fence that surrounded Armory Square, the brick sidewalk and the commercial area near the Federal Street intersection (Warner, 1891, p.40).



Springfield Armory Hill Shops showing buildings, grounds, roads, sidewalks and fences, last revised in 1957 (NPS archival files). Federal Square (digitally annotated by SUNY-ESR) is not part of the National Historic Site.

Figure 19. 1957 Plan of the Springfield Armory Hill Shops.



*Figure 20. Byers and State Streets gate, 1891: from left to right, the Main Arsenal (Building 13), the octagonal Gatehouse, the curving entrance road and Officers' Quarters (Buildings 5 and 6, duplex) (Warner, 1891, p.39).*



*Figure 21. Entrance road from Byers & State Streets gate shows character of vegetation as well as location of memorial at left (N of road), 1905 (Detroit Publishing Co. reproduced digitally by Library of Congress, Reproduction No. LC-D4-18064 DCL.*



*Figure 22. Lawn in front of the Commanding Officer's Quarters (Building 1) showing cannons used as a landscape feature, 1891 (Warner, 1891, p.39).*



*Figure 23. Armory Square, c.1880, view from Administration Building tower: (L to R) Paymaster's Quarters, Main Arsenal, Master Armorer's Quarters, & CO's Quarters. Flagpole at center of Green. (X1302-SA.1, SPAR archive photo files)*

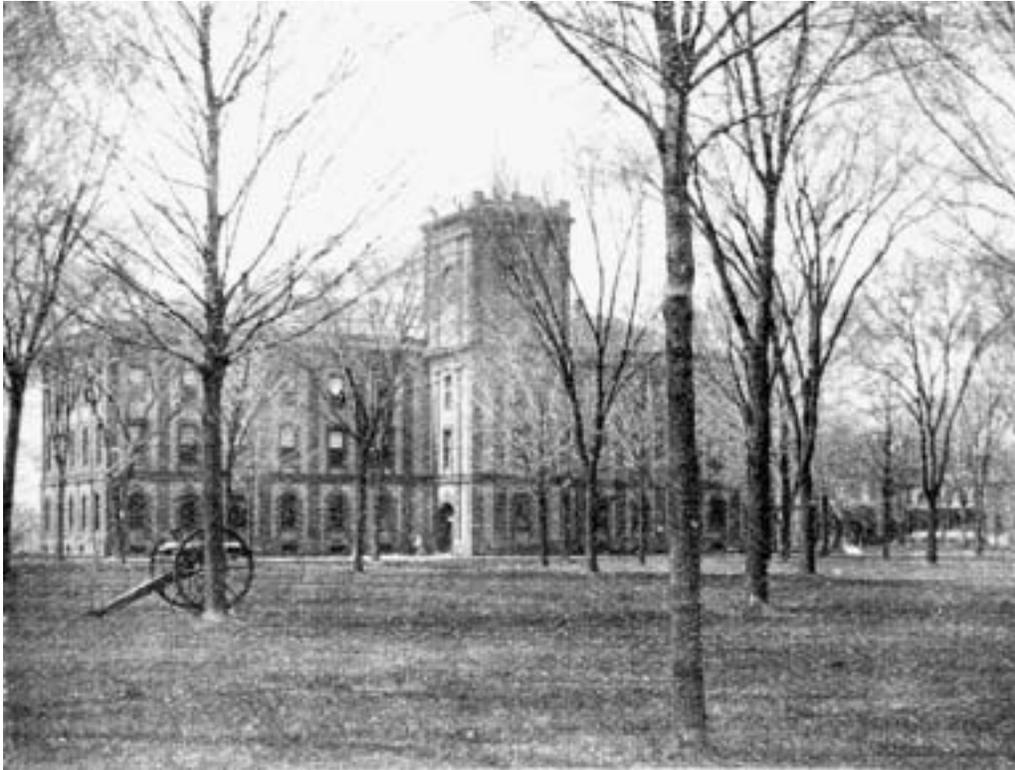


Figure 24. East façade of the Main Arsenal (Building 13) viewed across the Green showing the campus-like landscape, 1891 (Warner, 1891, p.39).

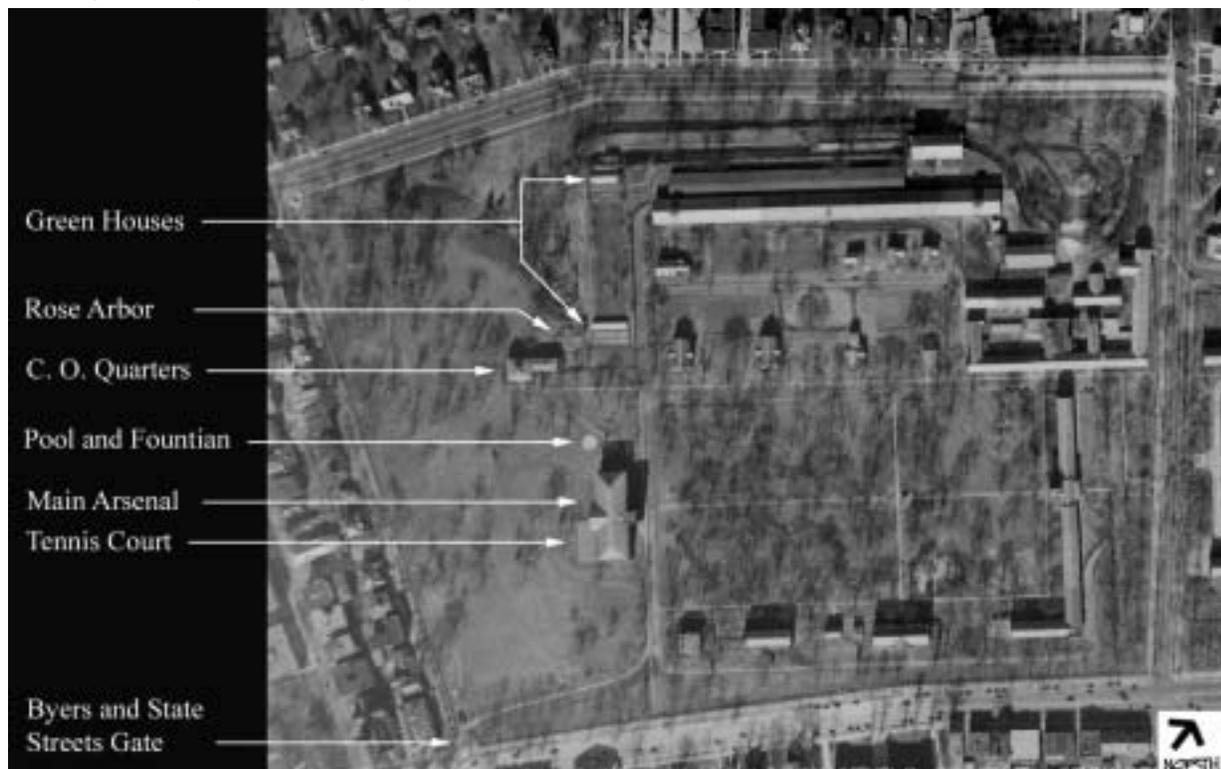


Figure 25. 1932 Aerial photo of Armory Square (photo image from aerial photo 219NHS82.b.1, SPAR archives, annotated by SUNY-ESF).



*Figure 26. The rose arbor in the circle behind the Commanding Officer's Quarters (Building 1), c. 1900 (2NHS93.1, SPAR archives)*



*Figure 27. Garden at the back entrance to the Commanding Officer's Quarters (Building 1), c. 1950 (9897-SA.c.1, SPAR archives).*



Figure 28. Fountain and pool between the Commanding Officer's Quarters (Building 1) and the Main Arsenal (Building 13), c. 1950 (181NHS93, SPAR archives).

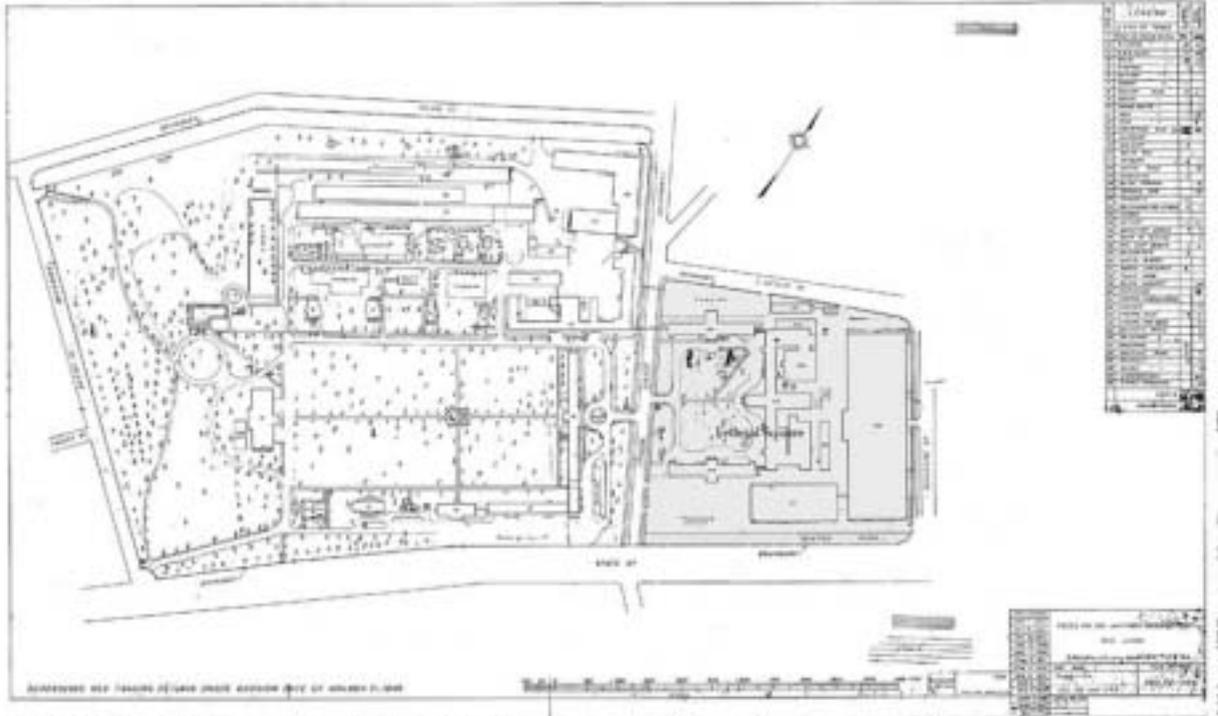


Figure 29. 1959 Plan identifying existing conditions and tree species. (11" x 17" in Appendix)



Figure 30. Aerial view taken from the east of Armory Square, 1966 (159NHS593.1, SPAR archives).

### **Changing the Function of the Armory, 1968 - Present**

The deactivation of the Springfield Armory in April 1968 ended nearly two centuries of active military presence on the site. The research, development, and manufacturing operations had ended. The Armory was readapted to serve several educational and recreational functions by local, state, and federal agencies that over the succeeding years altered the historic character of the landscape.

In 1967 Springfield Technical Community College was opened on the 34.61 acre Commonwealth Parcel that included the main entrance to the site on Federal Street, the Green, structures around the Green, as well as other structures to the north and northeast. Five acres of the city owned parcel including the Main Arsenal (Building 13) and the Commanding Officer's Quarters (Building 1) were leased to the not-for-profit Springfield Armory Museum, Inc. The remainder of the City owned parcel to the west and north of the Main Arsenal and Commanding Officer's Quarters was used as a recreational facility for the Springfield City Schools. Fill was added west of the Main Arsenal and west and north of the Commanding Officer's Quarters to gain sufficient level land for two football fields. Consequently about two thirds of the walk that connected the Byers and State Streets gate to the circle in front of the Commanding Officers Quarters was covered and the walk rendered non-functional [Figure 31]. The upper section of the dirt road that connected the same circle to the Byers and Pearl Streets gate was also covered with fill. A third football field was laid out on the former site of the gardens and greenhouses north of the Commanding Officer's Quarters.

In 1974 the United States Congress designated the Armory Square portion of the Springfield Armory a national historic site. In 1978 the City of Springfield transferred ownership of 20.32 acres, all its land within the fence and including the historic perimeter fence, the Main Arsenal (Building 13), the Commanding Officer's Quarters (Building 1), and the terraced slope to the west of the Green, to the

NPS. The City retained ownership of the tree belt and sidewalk surrounding the perimeter of the site. The Museum and Benton Small Arms Collection was transferred from the Springfield Armory Museum, Inc. to the NPS. Under an agreement of understanding with the college, the NPS was given scenic control over the exterior facades of the significant STCC property structures.

The spatial character of the north side of the Green, known as Officers' Row, underwent a dramatic change between 1973 and 1988. The former Officers' Quarters (Buildings 2, 3, and 4) [Figure 32] and the former Paymaster's Quarters (Building 17) were demolished, as well as a Garage (Building 26) and a significant portion of the Shop (Building 27). The Springfield Technical Community College built Deliso Hall (1973), Putnum Hall (1974), and Anthony M. Scibelli Hall (1988) on the historic building sites. These modern structures now dominate the north side the Green and diminish the spatial importance of the Main Arsenal (Building 13) and the other historic structures on the Green [Figure 33]. Figure 35 shows a plan of the existing conditions for the site in 1986, prior to the construction of Scibelli Hall. Informal plantings of trees dotted the open space area on the north side of the Green, but its use by the college on the south side as athletic fields resulted in an expansive open lawn for that area of the Green. Other than the Green, much of the eastern grounds operated by the Springfield Technical Community College were converted into surface parking to accommodate the needs of students. The 34.61-acre portion of the site operated by the college is managed by the STCC Facilities Department, Buildings and Grounds Division. Though STCC recognized its campus as contributing to the Springfield Armory historic site, the landscape was and is managed for its contemporary use as a college campus.

Two archeological surveys have been carried out on the NPS property. The first, in 1981, examined the site of a proposed electrical line corridor from the Main Arsenal (Building 13) to Pearl Street along the top eastern edge of the ravine. By 2000, an underground electric line had been installed along this corridor and an electric shed had been built on the site of the gardens near the Commanding Officer's Quarters (Building 1) [Figure 37]. The second archeological survey, in 1984, was conducted prior to installing a new drainage system for the area surrounding the Main Arsenal. A third archeological survey was scheduled for 2002 due to trenching done along the entire south edge of the Green to maintain underground utilities [Figure 38].

The cast iron fence along Byers and Pearl Streets was rehabilitated in 1984 (Carroll, 1984). In 2003, the Byers and State Streets gate was restored, and in 2005 the Gatehouse (Building 33) will be restored. The gate remains closed, except during special events. The Byers and Pearl Streets gate is permanently closed.

An undated plan [Figure 34] that documents location and identification of trees on the historic site showed that few of the 147 American elm (*Ulmus americana*) trees documented on the 1959 plan [Figure 29], remained. Sugar maple (*Acer saccharum*) has become the predominant hardwood tree on the site. A more detailed inventory of the woody species on the site in the area around the Commanding Officer's Quarters (Building 1) [Figure 36] can be found in the 1992 Landscape Preservation Management Plan (Coffin and Pepper, 1992).

The NPS property is maintained to preserve its original park-like character of a sloping lawn with a mature canopy of large shade trees; a practice that continues today. Although the upper portion of the pedestrian walk from the Byers and State Street entrance to the circle in front of Commanding Officers' Quarters (Building 1) as well as the upper portion of the dirt road from the Byers and Pearl Streets entrance to the same circle in front of the Commanding Officer's Quarters have been covered with fill, the remaining walks and roadways retain their early 20th century historic character. The wooded slope

and ravine north of the Commanding Officer's Quarters have become overgrown with trees, shrubs, and vines, some of which have been cleared by the park staff. The meadow (also referred to as the Hayfield) to the northwest on the NPS property is managed by mowing. The meadow has persistent wet areas due to the natural hydrology of this part of the grounds. The area near the Commanding Officer's Garage (Building 19) is used as a service area. The former site of the two large greenhouses (Building 24) and gardens north of the Commanding Officer's Quarters is maintained as open lawn, and also contains a mulch pile.

By statute, the City of Springfield requires landowners to maintain the sidewalk and treebelt. While the STCC completes some maintenance along its portion of the perimeter, Springfield Armory NHS, under direction of the Solicitor, does little to no maintenance outside the fence because this is not federal property and the federal government does not wish to accept legal liability. The city has offered and the NPS is considering taking over the title to the perimeter area adjacent to the NPS property. This decision will be made during the upcoming General Management Plan. On the city owned property, the brick walk and sandstone curbing on Byers Street still exist but need stabilization before the features deteriorate further from severe erosion and water run-off damage. The walk and planting belt on State Street and Pearl Streets are minimally maintained and show signs of deterioration. The brick walk and planting belt on Federal Street is well maintained, but is also showing signs of wear and tear. Graffiti has also been a problem affecting the perimeter gates.

Pedestrians can access the NPS site via a gate at the former State Streets Gate. Vehicles enter the NPS site through the main gate of the STCC site on Federal Street and park east of the Main Arsenal (Building 13) next to the Green. Parking for the STCC campus occurs primarily on the north end of the site, while parking for the NPS occurs primarily east of the Main Arsenal.

The NPS actively engages the public by interpreting the Springfield Armory's role in the research, development, and manufacturing of United States military arms. The Main Arsenal (Building 13) houses the world's largest collection of American military firearms in the first floor public museum, the park's archives, and the park's administrative offices. Year-round public programs, exhibits, and special events such as firearms and cannon firing demonstrations, drill team exhibitions, an annual reenactment entitled "Three Centuries of Soldiers, the Weapons, and their Music," and an annual big band concert are hosted on the grounds of the NPS property. The STCC campus is actively used for the education of students.



*Figure 31. View of fill-covered walk from the Byers and State Streets gate to the circular drive in front of the Commanding Officer's Quarters (Building 1) (OCLP SPAR CLI File).*



*Figure 32. View, looking east, of Officers' Row on the north side of the Green, 1910. (Detroit Publishing Co. reproduced digitally by the Library of Congress, Reproduction No. LC-D4-18064 DCL [<http://rs6.loc.gov/ammem/amhome.html>]).*



Figure 33. View of Officers' Row on the north side of the Green from the Main Arsenal (Building 13) tower, 2002 (OCLP SPAR CLI File).

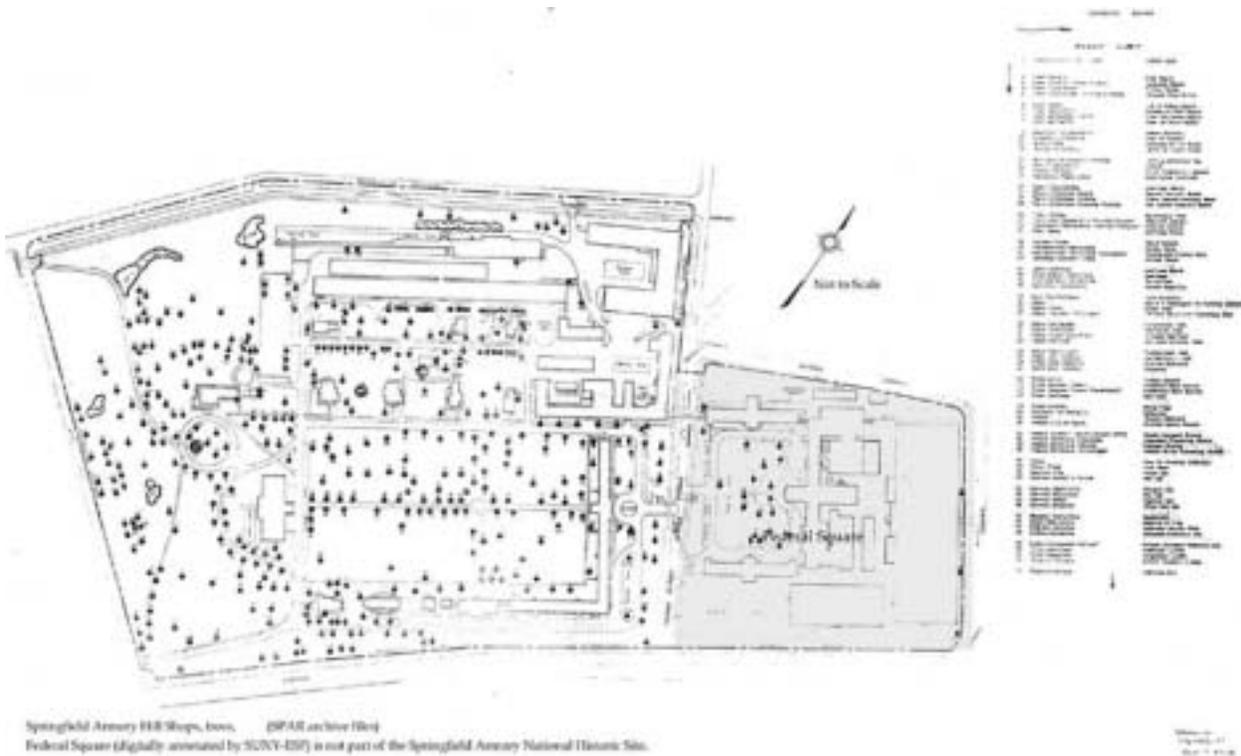


Figure 34. An undated plan (c. 1980s) that identifies and locates the trees existing on the property at that time. (11" x 17" in Appendix).

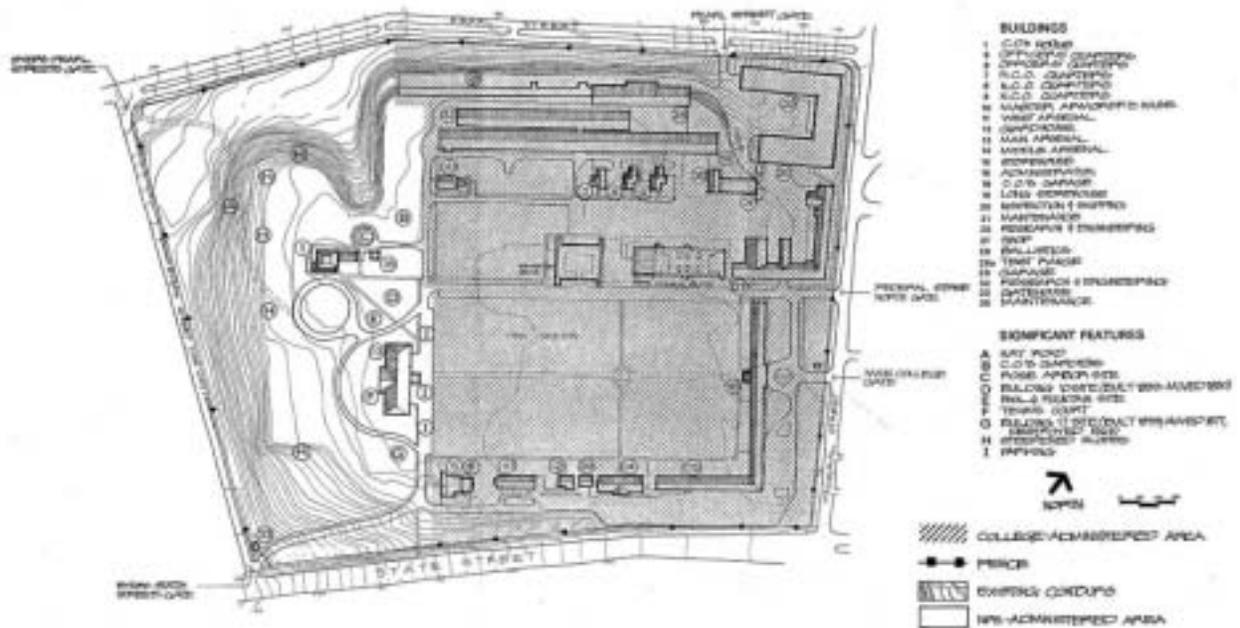


Figure 35. Plan of 1986 existing conditions prepared for Springfield Armory General Management Plan/Development Concept Plan by NPS and STCC.

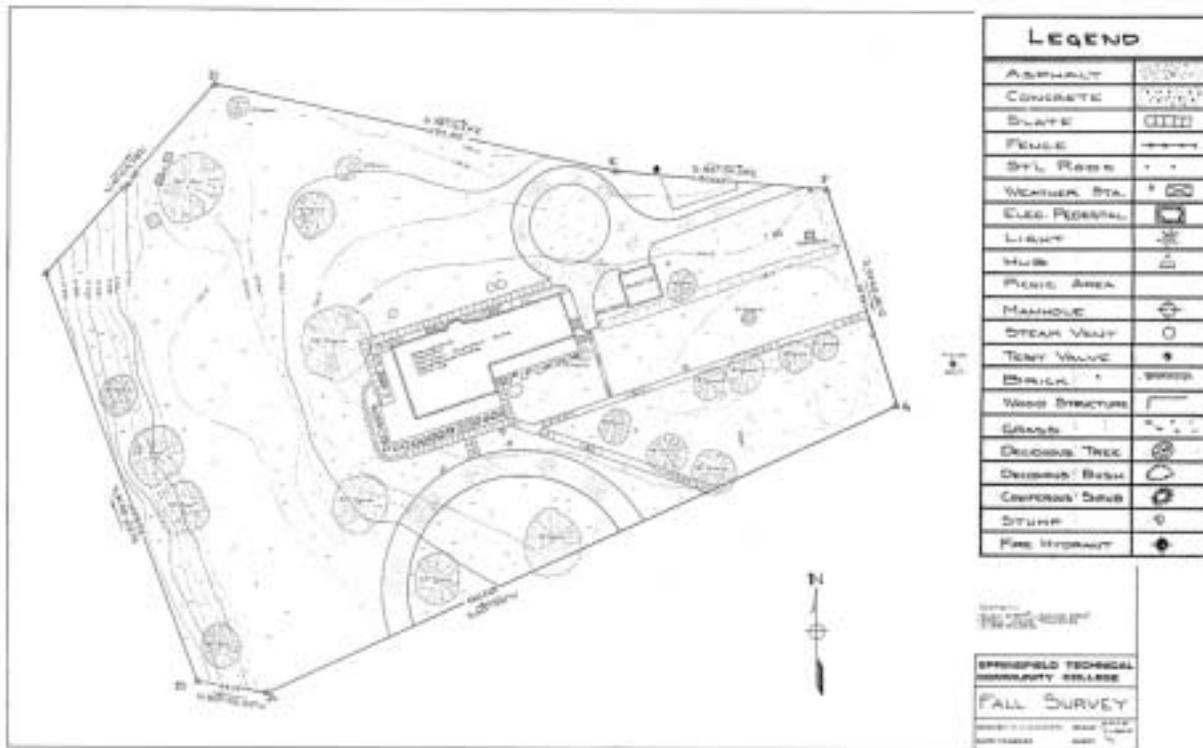


Figure 36. Survey of the grounds surrounding the Commanding Officer's Quarters (Building 1), 1992 (OCLP SPAR CLI File, digitally altered to enlarge legend).

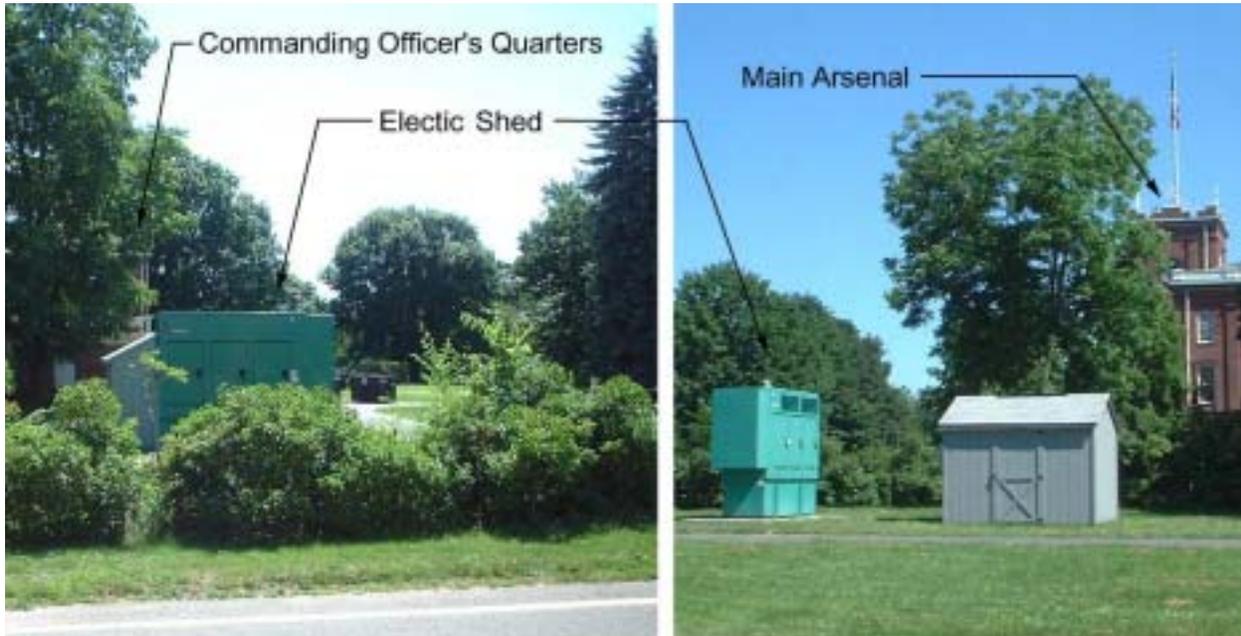


Figure 37. Electric shed located east of the Commanding Officer's Garage (Building 18) and Commanding Officer's Quarters (Building 1) and north of the Main Arsenal (Building 13) (OCLP SPAR CLI File).



Figure 38. Trench along length of the south side of the Green, 2002 (OCLP SPAR CLI File).

## Analysis And Evaluation

### Summary

The following narrative provides an analysis of the landscape characteristics and features of Armory Square. For each characteristic a general description is given for the major changes that have occurred in the landscape during the period of significance. Those developments are compared with the site's existing conditions. This analysis results in a determination regarding which characteristics and their associated features are contributing to the site's historic character. This analysis is preliminary in nature due to the limited research and documentation undertaken for this CLI. The main sources included "A History of Springfield Armory" (Whittlesley, 1920), the National Register of Historic Places Inventory-Nomination Form (Rettig and Shedd, 1974), the Historic Structure Report, Historical Data/Historical Base Map (Albright, 1978), Archeological Investigations (Lackey and Sacchi, 1984), Archeological Survey of a Proposed Electrical Line Survey (Freiro, 1982), maps and photos from SPAR archives (2002) and on-site photos (SUNY-ESF, 2002). Further research is recommended to identify the full range of landscape features associated with this property.

Based on the research conducted for the CLI, the Springfield National Armory Historic Site retains integrity to the period of significance from 1778 (the date of the first federal arms storage and manufacturing at the site) to 1968 (the date of the installation's military deactivation). The property is historically significant under Criterion A for the events encompassing the Armory's national contribution to military defense and advances in manufacturing in the late 18th through the mid 20th centuries and under Criterion C as an intact, representative example of 19th through early 20th century military campus landscape design.

While the site retains integrity to the period of significance, some developments have occurred since 1968 that have altered the historic character of the site. More importantly, future actions need to be closely guided to ensure that any future actions which could affect the cultural landscape are considered with the historic character of the site in mind. Today, a Memorandum of Understanding (MOU) exists between the National Park Service and the Commonwealth of Massachusetts, which oversees the STCC property. The MOU outlines the agreement by both the NPS and the Commonwealth to maintain the historic appearance of the building facades and maintain the present appearance of the Green, but the MOU doesn't fully address other issues pertinent to maintaining the historic appearance of the landscape. For example, the fenceline along the NPS portion of the historic site has been cleared of woody vegetation, but this has not been done consistently around the STCC campus. Also, due to the limited space available to the NPS, some maintenance structures and activities (such as the growing mulch pile) are located within view and are affecting the historic character of the main site. Additional examples exist and are more fully outlined in the following narrative.

### Landscape Characteristics And Features

#### Natural Systems And Features

Natural features of the Armory Square site contributed to its being chosen as a national armory. The site lies at the top of a post-glacial sand dune approximately three-fourths of a mile east of the Connecticut River. (Lackey, 1984, p.5) When the site was selected during the Revolutionary War the sandy bluff provided a strategic location with close proximity to a waterway, but was far enough inland to be reasonably safe from attack.

Today, Armory Square is in the center of an urban area. The area is still characterized by a series of bluffs, ravines, and hills of moderate relief that flank the river valley. The bluffs, ravines and hills and natural hydrologic system, including natural springs located along the western slopes of the site, have been modified by construction over the last several centuries. The bluff along the western side of the site was graded and terraced several times during the period of significance in an ongoing effort to overcome erosion problems originating from natural springs on the site.

**Summary of Findings:**

Natural systems and features contribute to the significance of Armory Square as characteristics of the Springfield Armory landscape. The primary features include the flat plain above the sandy bluff and the nearby Connecticut River that were key to the original site selection of the facility. Another primary feature is the natural springs on the site. Much of the terracing and grading that occurred throughout the significant period were attempts to ameliorate the erosion due to the soil type, the topography, and the natural springs.



Figure 39. Topographic map of a section of the City of Springfield illustrating the landform occupied by Armory Square and environs (Detail, USGS Quadrangle).

Characteristic Feature	Type Of Contribution	LCS Structure Name	IDLCS Number	Structure Number
Plain atop bluff overlooking Connecticut River	Contributing			

## Spatial Organization

Armory Square was laid out in a military campus design, with the central Green, a former Revolutionary War training ground and town common, serving as the organizational and spatial framework of the site. The addition of living quarters and manufacturing and storage facilities over time would respect the orientation, architectural character and open space of this central area. The manufacturing operations were sited primarily on the east and northeast sides of the site. With the exception of the Main Arsenal (Building 13) to the west of the Green, storage or arsenal facilities were on the south side, and living quarters on the west, northwest, and north sides.

The site still retains the broad spatial organization that defined the area during its period of significance, particularly the arrangement present after the Civil War expansion that was still generally in place in 1968 (the end of the period of significance). By the mid 19th century the City of Springfield had expanded the site to the boundaries of State Street to the south/southeast, Federal Street to the north/southeast, Pearl Street to the north/northwest and Byers Street to the west/northwest. A planting strip, sidewalk, and historic iron fence interface with the streets. The 8.75-acre Green still retains its historic rectangular quadrangle layout. However, on the north side of the Green, three dominating structures erected by the college in the 1970's and 1980's on the site of four officer's quarters, while framing the area, create a vast, out of scale enclosure that detracts from the site's historic character.

Surface parking lots were added along the south/southeast and north/northwest perimeter of the STCC property by the mid 20th century, with much of the open space north, northwest and south of the Green still retaining an informal arrangement of shade and evergreen trees and clipped lawn. Today, most of the open space to the north and south of the Green on the Springfield Technical Community College site has been converted to additional surface parking to accommodate faculty, staff, and commuting students. Perpendicular parking has also been added to the NPS property on the east side of the road that extends along the west perimeter of the Green.

The treed sloping lawn around the perimeter retains a park-like character, particularly along the steeply sloping NPS portion along State Street, near the Byers and State Streets gate and west of the Main Arsenal (Building 13). The wooded bluff to the west of the Commanding Officer's Quarters (Building 1) and to either side of the ravine to the north of the Commanding Officer's Quarters are minimally maintained and retain a more naturalistic character. The lowland meadow, historically known as the Hayfield, at the bottom of the slope near the Byers and Pearl Streets gate was once planted with rows of trees in the mid to late 19th century. The site of the former greenhouses is maintained in part as open lawn and in part as a mulching area for leaves and limbs from the entire historic site.

### Summary of Findings:

The spatial organization contributes to the historic significance of Armory Square as a characteristic of the landscape that has remained largely unchanged throughout the historic period. The Green was historically the organizational and spatial framework for the site. Contemporary demolition and construction by the Springfield Technical Community College (STCC) on the north side of the Green and the expansion of the parking areas detract from the historic spatial organization of the site.

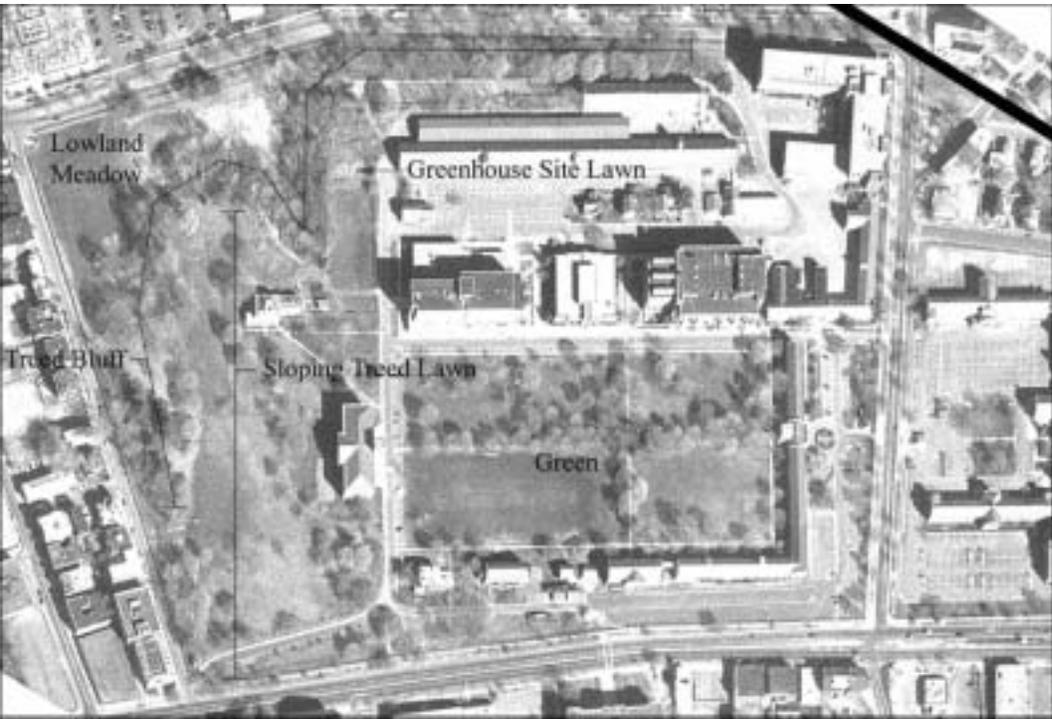


Figure 40. Aerial view (1997) of Armory Square delineating the spatial organization. (SPAR archives photo file, annotated by SUNY-ESF)



Figure 41. The sloping treed lawn on the NPS property. The Main Arsenal (Building 13) stands at the top of the graded bluff. National Park Service, 2002.



*Figure 42. A view through the Byers and Pearl Streets gate and the lowland meadow toward the wooded bluff. National Park Service, 2002.*



*Figure 43. The lowland meadow on the northwest corner of the historic site. The view is from the top of the wooded bluff and through a break in the trees. National Park Service, 2002.*



*Figure 44. Site of former greenhouses (removed in 1958). Area now maintained as open lawn w/mulch pile at rear that has grown in size since this photograph was taken. Long Storehouse (Building 19) Master Armorer's Quarters (Building 10). NPS, 2002.*

<b>Characteristic Feature</b>	<b>Type Of Contribution</b>	<b>LCS Structure Name</b>	<b>IDLCS Number</b>	<b>Structure Number</b>
Historic Circulation Systems	Contributing			
Manufacturing, Storage and Residential Complex of Buildings	Contributing			
Natural and regraded (pre-1968) slopes	Contributing			
Perimeter Sidewalk and Street Planting Strip	Contributing			
The Green	Contributing			
Contemporary Buildings (Scribel, Deliso, and Putnam Halls)	Non-Contributing			

## Land Use

Prior to the establishment of the Armory the site was a militia training field and common north of the Boston Road (extant State Street) that was surrounded by homesteads, woodlots, pine barrens, and marshland. Construction of a cartridge shop and barracks marked the beginning of the federal manufactory on the National Historic Site in 1778 (Whittlesey, 1920, p. 25). The barracks were located on the northern portion of the site and the cartridge shop was built to the south along the Boston Road (Ibid. p. 26). At the time of the establishment of the National Armory in 1794 many of the same buildings of the Revolutionary War facility, as well as some of the barracks, became early Armory Hill shops, generally defining a land use pattern that was to be continued throughout the Armory's history. The manufacturing operations were sited on the east and northeast sides of the Armory Hill site and, with the exception of the Main Arsenal (Building 13) to the west of the Green, storage or arsenal facilities were on the south side of the Green. Living quarters were sited on the west and north sides of the Green.

Around 1830 a fence was built to enclose the facility and the Green was planted with trees and no longer used as a public common. According to an interpretive sign on the National Park Service site, the meadow area near the Byers and Pearl Streets gate was at one time a hayfield. Fountains, greenhouses, and gardens were added in the late 19th century and early 20th century, increasing the ornamental qualities of the grounds, which were scaled-down before the close of the Springfield Armory in 1968. The fountains were removed by the 1930's, and the rose garden and greenhouses were removed in the 1950's.

After the close of the Armory as a military installation in 1968, the Armory Square site was divided into two parcels and the facility ceased to function as a small arms manufacturing and storage operation and residential site. Springfield Technical Community College was opened and continues to be used as an educational institution. The Main Arsenal (Building 13) and the Commanding Officer's Quarters (Building 1), was leased to the Springfield Armory Museum, Inc. and the Main Arsenal was converted to a museum. The remaining part of the site was used as a recreational facility for Springfield City Schools.

In 1974 ownership of the city-owned parcel, with the exception of the perimeter brick sidewalk and street planting strip, and the Springfield Armory Museum Inc. owned Benton Small Arms Collection were transferred to the NPS. The Main Arsenal (Building 13) houses the first floor public museum, archives, collection storage, park administrative offices, conservation lab, and the renowned "Benton Small Arms collection." The Commanding Officer's Quarters (Building 1) houses a collection conservation facility operated by the Frederick Law Olmsted National Historic Site. The garden area behind the Commanding Officer's Quarters is currently used as park maintenance yard.

### Summary of Findings:

Existing educational land use does not contribute to the significance of Armory Square. While most of the uses associated with the STCC are compatible, some should be reconsidered, such as the year-round appearance of the Green as a recreational sports field. While recreational use during certain times of the year can be considered acceptable, the method in which it is done and the structures associated with it should be kept to a minimum. For example, goals, bleachers and barriers do not need to remain in place during off-season months or during high visitation events. The adaptive reuse of the Main Arsenal (Building 13) and the Commanding Officer's Quarters (Building 1) as museum, archives, park administrative offices, and collection conservation facilities does not detract from the historic character of the landscape. However, the park maintenance yard, which includes the expanding mulch pile, is

beginning to adversely affect the historic character of the landscape.

## Topography

The Armory Square topography was significantly altered twice in the mid-1800s. Between 1846 and 1850, about 126,000 cubic yards of soil was moved along the slope west of the Main Arsenal (Building 13) and north of the Long Storehouse (Building 19), to control springtime erosion that resulted in hillside gullies. About 9,600 square yards of sod was laid on the newly sculpted hillsides and a system of culverts was installed around the Main Arsenal (Building 13) to direct water away from the building.

Between 1856 and 1857, the terraces west of the Main Arsenal (Building 13) were regraded, resulting in a more even and gradual slope. The newly graded hillside allowed the culverts installed between 1846 and 1850 (as well as others installed in 1855), to carry excess water off, into State Street.

Following the end of the period of significance, the Springfield City Park Department regraded large portions of the hillside west of the Main Arsenal (Building 13) and north and west of the Commanding Officers Quarters (Building 1) to create athletic fields in 1969. A significant amount of fill was added to level the topography, bringing the grade almost to the top of the hill. Regrading necessitated removal of a large number of specimen trees. It also aggravated the natural spring system which had lain dormant or under control for decades, rendering the lower playing field unsuitable for use because of wet conditions. (Sofair, 1971, p. 23-24) The upper field was also unsuitable for athletics, because its size did not meet field standard dimensions. A short time after the first two fields were constructed (after 1971) a third field was constructed north of the Commanding Officer's Quarters (Building 1), on the site of the former gardens and greenhouses (Building 24)

Possible evidence of a brick walk discovered during an excavation to repair underground utility lines in 2002, may indicate that the grade of the Green has also changed.

The elevation rises from 130 feet above mean sea level at Byers and Pearl Streets gate to 196 feet above mean sea level on the Green, the highest level on Armory Square. The grade change on the NPS property is 130 to 194 feet above mean sea level.

### Summary of Findings:

The topography contributes to the significance of Armory Square as a defining characteristic of the landscape since this characteristic was a factor in the original site selection. The evolution of the natural bluff into graded and terraced slopes, primarily during the 19th century, also contributes to the historic character of the site. The fill that was added by the Springfield City schools to create athletic fields after the period of significance detracts from the historic character of the landscape. It also caused the loss of historic vegetation and circulation features.

<b>Characteristic Feature</b>	<b>Type Of Contribution</b>	<b>LCS Structure Name</b>	<b>IDLCS Number</b>	<b>Structure Number</b>
Natural and regraded (pre-1968) slopes	Contributing			

## Vegetation

During the early years of the historic period the Armory Square, landscape underwent a transition from an open common area surrounded by homesteads, woodlots, pine barrens, and marshland to mowed lawns shaded by a canopy of trees.

By the 1830's Superintendent Lee had banned livestock grazing on the Green and trees had been planted in this area, as well as in front of the Armory buildings facing State and Federal Streets. Tree planting ordered by Superintendent Lee was confined primarily to the Green, and the trees were laid out in straight rows, running parallel and perpendicular to each other. Other trees on the site included naturally occurring trees along the ravine and trees within the homesteads bordering the Green. Also associated located on the homesteads were agricultural crops, laid out in a square patchwork pattern [Figure 8].

Under the direction of Superintendents James Ripley (1841-1854) and Superintendent James S. Whitney (1854-1860), a significant number of vegetative changes occurred. As apparent in an 1864 plan of Armory Square [Figure 15], hundreds of trees had been planted: in straight rows, along the recently terraced ridge in back of the Long Storehouse (Building 19), along the sidewalks bordering the site and along interior roads; and in more naturalistic formations within the Green and along the recently terraced hillside west of the Main Arsenal (Building 13). Many of the agricultural fields present in the 1830s had been converted to building sites and/or planted in lawn; however, several gardens are depicted on the map in back of what appear to be military residences on the north side of the Green, and another north of the Commanding Officer's Quarters (Building 1).

By the late 1800's, ornamental shrubs and perennial gardens surrounded the Commanding Officer's Quarters (Building 1). A rose arbor was located within the circular drive behind the Commanding Officer's Quarters. In 1908, two greenhouses were built north of the Commanding Officer's Quarters, flanking the northern and southern edge of the garden located north of the residence.

A 1932 aerial photograph depicts the general configuration of trees depicted on the 1864 map, although the presence of additional buildings indicated a number of trees had been removed [Figure 25]. A hurricane in 1938 brought down numerous trees, leaving large gaps in the tree canopy. A 1959 map of Armory Square depicts locations where trees had been planted since the 1864 map was drawn, as well as areas where trees had been removed [Figure 29]. Although differences are apparent, the general character of the canopy is very similar in many areas. Within the Green, trees continue to be located in a naturalistic pattern within the four quadrants, although it appears trees had also been planted in rows bordering the walks, especially the east-west walk between the Main Arsenal (Building 13) and the Administration Building (Building 16). Also, the map depicts a border of small evergreen around the circle walk in the center of the Green.

Following the end of the period of significance, a number of mature shade trees on the hillside west of the Main Arsenal (Building 13) and north and west of the Commanding Officer's Quarters (Building 1) were removed during construction of the athletic fields in 1969. Some of the trees that were planted on the hillside and within the ravine during the historic period remain, but a lot of the vegetation is volunteer growth. In the late 1960's – early 1970's, STCC cleared trees within the southern half of the Green to provide open space for athletic fields (Sofair, 1971, p. 23).

Today, maintenance of the grounds, specifically the annual removal of vegetation and mowing due to routine and cyclic maintenance activities has led to the creation of a mulch pile on the NPS property. This mulch pile grows each year and if left to continue for years to come will adversely affect the

historic scene. A permanent solution is needed.

**Summary of Findings:**

Vegetation contributes to the significance of Armory Square as a defining characteristic of the landscape, and in areas remains generally unchanged since the end of the period of significance. The loss of trees on the hillside west of the Main Arsenal (Building 13) and west and northwest of the Commanding Officer's Quarters (Building 1) as well as the loss of trees on the Green is detrimental to the character of the historic landscape. Of those trees that remain from the historic period, particularly those on the site's west slopes, some need stabilization and pruning care. The large areas of lawn and meadow, all of which existed during the period of significance, also contributes due to it being a defining characteristic of the park-like grounds present during the period of significance. In addition, any remaining ornamental vegetation, such as shrubs, hedges and perennials, present during the period of significance, particularly those around the Commanding Officer's Quarters, are contributing. Conversely, contemporary vegetation associated with STCC and volunteer vegetation does not contribute to the historic character of Armory Square.



*Figure 51. Elm (left) and red oak (right) specimen trees on the NPS property lawn. National Park Service, 2002.*



Figure 52. Left: Yew, mountain laurel, and juniper foundation plants on the west side of the Commanding Officer's Quarters (Building 1). Right: The lilac hedge to the south of the driveway. National Park Service, 2002.

Characteristic Feature	Type Of Contribution	LCS Structure Name	IDLCS Number	Structure Number
Lawn	Contributing			
Lowland Meadow (Hayfield)	Contributing			
Ornamental Plantings (shrubs, hedges, perennials) pre-1968, primarily around Commanding Officer's Quarters	Contributing			
Perimeter Street Trees	Contributing			
Specimen Trees on Lawns, Treed Bluff and Green	Contributing			
STCC Planted Vegetation (post-1968)	Non-Contributing			

## Circulation

Circulation in the 1820's included two roads that entered the site from the Boston Road (extant State Street), a road that connected these two roads and a road from Chickopee Parish (extant Armory Street) accessed the manufactory complex portion of the site from the northeast. One of the roads from the Boston Road crossed the property on the west perimeter of the Green and passed to the west and in front of the pay office, Superintendent Lee's Quarters, several former homesteads, and the schoolhouse. The other road from the Boston Road crossed the east side of the Green to the manufactory complex and provided access to former homesteads on the north portion of the site. The connecting road on the north perimeter of the Green passed to the north and in front of other former homesteads on the site [Figure 7].

By the 1830's there were two additional north/south roads crossing what is now the historic site from State Street (Boston Road), one further to the west which no longer exists and the other running near the eastern perimeter of the present historic site in front of and to the east of the North and South Shops and the Office/Chapel and connecting to the Chickopee Parish Road. There were also multiple informal paths of convenience that crisscrossed the Green from buildings on the site [Figure 8].

By 1851, flagstone walkways had been constructed along the north, south, and west sides of the Green. Brick and cement gutters were installed along the edges of the sidewalks bordering the north and west sides of the Green.

After the completion of the perimeter iron fence in the 1860's four vehicular gates limited the points of entrance/egress: two on Federal Street, one on State Street and one at the intersection of what is now Byers and Pearl Streets [Figure 15]. The road through the southern-most gate on Federal Street entered immediately to the east of the drop off circle in front of the Administration Building (Building 16). This is the current main vehicular entrance to the site for both the community college and the NPS. Roads still ran along the west and north perimeter of the Green. At this time a road that ran between the fence and the buildings on the east and south sides of the Green was added. The current entrance to the NPS property is via this road. The road through the Byers and Pearl Streets gate entered at a diagonal, curved south at the base of the bluff, ascended across the bluff and ended at the circle in front of the Commanding Officer's Quarters (Building 1). This road exists only as a trace today and the Byers and Pearl Streets gate is closed at all times.

The pedestrian paths of the 1860's were very linear and formal. A brick sidewalk ran along the outside perimeter of the fence. The brick portion of this sidewalk along State, Federal, and Byers Streets exists today. No documentation has been found to determine when and why the sidewalk along Pearl Street was replaced with concrete. A walk ran along the north side of the road from the northern Federal Streets gate to the Commanding Officer's Quarters (Building 1); short access walks joined shops and officer's quarters' entrances to this walk. A similar walk ran from the State Streets gate with access walks to the Paymaster's Quarters (Building 17), the Main Arsenal (Building 13), and the Master Armorer's Quarters (Building 10). The Green was divided into quadrants by walks that met in an oval at the central intersection and crossed from the Administration Building (Building 16) tower to the Main Arsenal (Building 13) and from the Middle Arsenal (Building 14) to the road opposite. The 1864 topographical plan shows access paths to the garden or planting plots in what is now the Greenhouse lawn area [Figure 15].

When State Street was regraded in 1875 the State Street gate was replaced with a pedestrian gate. This pedestrian entrance to the NPS property still exists today. The Byers and States Streets gate was also constructed in 1875, and the walk leading from the gate to the circle in front of the Commanding

Officer's Quarters (Building 1) soon after. Sometime after the Paymaster's Quarters (Building 17) was moved in 1895, a road leading from the northwest corner of the Green to the Commanding Officer's Quarters was removed, and the extant curving road running to the north, west, and south of the Main Arsenal (Building 13), then diagonally to the Byers and State Streets Gate, was built.

By 1957, most of the road and parking lot surfaces within the site were concrete-bituminous surfaces, and parking lots of the same material had been constructed along the south/southeast and north/northwest perimeter of the present STCC property. The road from the Byers and Pearl Streets gate to the circle was macadam. A number of flagstone sidewalks were located throughout Armory Square, including along the south and west sides of the Green, around the Commanding Officer's Quarters (Building 1), around the former site of the greenhouses (Building 24), and leading to the Master Armorer's Quarters (Building 10), the Paymaster's Quarters (Building 10), Officers' Quarters (Buildings 2, 3, 4, 5, 6, 7, 8, and 9) and the Guardhouse (Building 12, later used as officer's quarters). The walk across the Green from the Main Arsenal (Building 13) to the Administration Building (Building 16) was gravel. [Figure 19]

Following the end of the period of significance, the walk leading from the Byers and State Streets gate to the circle drive was partially covered when fill was added to the hillside west of the Main Armory (Building 1) during construction of the athletic fields in 1969. Construction of the three modern academic buildings along the northern side of the Green between 1973 and 1988 necessitated removal of the flagstone walks and the Paymaster's Quarters (Building 17) and Officers' Quarters (Buildings 2, 3, and 4). Also, at some point, the flagstone surface of the walks along the southern and western sides of the Green were replaced by concrete. Although Pearl Street is now concrete, the sidewalks along Byers, State, and Federal Streets have retained their historic brick surfaces, although sections of missing brick have been replaced with asphalt.

#### Summary of Findings:

Circulation contributes to the historic significance of Armory Square as a defining characteristic of the landscape. Extant circulation features date back to at least the 1820's (roads/paths around the Green, etc.) and the circulation pattern within the Green to at least the 1850's. Curvilinear roads and walks associated with the Main Armory and the Commanding Officer's Quarters (Building 1) date from the mid- to late-nineteenth century, and the parking lots along the southern and southwestern edges of Armory Square to at least 1957. Post 1968 circulation features that detract from the character of the historic landscape include the partially covered walk that leads from the Byers and State Streets gate to the circle in front of the Commanding Officer's Quarters, the expanded parking lots, missing sections of brick along the walkways bordering the site, missing flagstone walks adjacent to the Green, and the historic appearance of the road from the Byers and Pearl Street Gate.



*Figure 45. The State Streets gate is a pedestrian entrance to the NPS property. Prior to the regarding of State Street in 1875 this was one of the two main vehicular entrances to the historic site. National Park Service, 2002.*



*Figure 46. The remnants of the wooded bluff portion of the road that ran from the circle to the corner of Byers and Pearl Streets. This trace road is used by the NPS to access the lowland meadow. National Park Service, 2002.*



*Figure 47. The brick perimeter sidewalk and fence. The sidewalks on Byers Street (left) and State Street (right) are on the city owned portion of the historic site and require stabilization and rehabilitation or restoration. National Park Service, 2002.*



*Figure 48. The gravel walk crosses the Green from the Main Arsenal (Building 13) to the Administration Building (Building 16). National Park Service, 2003.*



*Figure 49. A view of the circle in front of the Commanding Officer's Quarters (Building 1) looking across the tree-lined lawn west of the Main Arsenal (Building 13). National Park Service, 2002.*



Figure 50. The driveway and circle behind the Commanding Officer's Quarters (Building 1). The Commanding Officer's Garage (Building 18) is on the left in front of the east side of the Commanding Officer's Quarters. National Park Service, 2002.

Characteristic Feature	Type Of Contribution	LCS Structure Name	IDLCS Number	Structure Number
Circular Driveways	Contributing	Circular Driveways	040452	HR01
Concrete Walkway System (pre-1968), including walks from Byers & State Street Gate, pedestrian entrance from State Street, walks around and through the Green	Contributing	Concrete Walkway System	040450	HLF02
Flagstone Walkway	Contributing	Flagstone Walkway	040451	HLF03
Outer Perimeter Sidewalks (Pearl, Federal, State and Byers Streets)	Contributing	Brick Perimeter Sidewalks	040453	HLF01
Roadway System, including Entrance Road Trace at Byers & Pearl Street Gate	Contributing	Roadway System	040456	HR02
NPS Parking	Non-Contributing			

STCC Parking, Access Roads,      Non-Contributing  
Walks (post-1968)

## Buildings And Structures

Prior to the historic period, the earliest buildings on the site were houses, barns, and other out buildings associated with the homesteads that surrounded the public Green. Within two years of the federal presence on the site, the facility had expanded to include a magazine, a barracks, and a cartridge shop.

In 1968, at the end of the period of significance, thirty-one buildings stood on Armory Square. Below is a brief summary of each building.

The first two floors of the West Arsenal (Building 11) were built in 1807-8. A third story was added during the Civil War, by 1863. The building's two-foot-thick brick walls support a gable slate roof, and its windows have stone lintels and trim. Its one-story porches on the front and rear elevations are later historic additions. A modern eleven by fifteen feet addition extends from the southwest side of the building. (Rettig, 1974, p. Description (1)) Over the years it has been used as a barrel house, storehouse, barracks, and, most recently, from World War II to 1968, as a recreation building and Officers' Club (Dvarecka, 1968, p. 24). The building is the oldest extant structure on the site.

The East Arsenal (Building 15) was built on the south side of the Green in 1824. The two-story building had fifteen bays and two-foot thick brick walls. In 1919, the East Arsenal and the Administration Building (Building 16) were joined, forming a single L-shaped building. In 1941, the East Arsenal was raised one story and eighteen additional bays were added to the western end (Rettig, 1974, Description (2)).

The three-story Middle Arsenal (Building 14) was built in 1830, on the south side of the Green, between the East Arsenal (Building 15) and West Arsenal (Building 11). Its original construction included a balustrade (removed) along the eaves, bull's eye fan lights in the attic, and a Georgian-style portico. (Whittlesey, 1920, p. 146).

In 1833, two mirror image brick Greek Revival houses, the Paymaster's Quarters (Buildings 17) and the Master Armorer's Quarters (Building 10) were built on the western side of the Green, flanking Superintendent Lee's Quarters (current site of Main Arsenal (Building 13)). In the late 1800's, the Master Armorer's Quarters was moved to its present location and the Paymaster's Quarters was moved to the northeast corner of the Green. Four brick Greek revival style Officers' Quarters (Buildings 4, 7, 8, and 9) were also built in the 1830's, one (Building 4 in 1836) was constructed on the north side of the Green and the other three (Buildings 7 in 1833 and Buildings 8, and 9 in 1836) were built to the north of, not directly on the Green.

The brick Greek Revival style Commanding Officer's Quarters (Building 1) was constructed between 1845 and 1846. The existing cast iron porches replaced the original style Doric entrance porch, west porch, and ell porch in 1870. In 1900, the windows were altered. (Rettig, 1974, Description (1)).

The Main Arsenal (Building 13) was built between 1847 and 1850. The large three-story buildings has a massive twenty-four by thirty foot tower (with three clock faces) facing the Green and a twelve by sixty-nine foot pedimented pavilion on its west elevation. (Rettig, 1974, Description (2)) The building currently houses the first floor public museum, archives, and park administrative offices.

The Long Storehouse (Building 19) was built between 1847 -1850 and extended in 1863 to its present size. The two-story structure is 764 feet long and has a gabled slate roof. The long walls are broken on the first floor by wide segmental-arched openings with louvers and on the second floor by casement

windows. It is perhaps the finest example of cavalry caserne [casern] style architecture in the United States today. (Ibid. Description (2))

Between 1819 and 1924, three small buildings were built on the eastern side of the Green: a brick two-story office and chapel building (1819), the North Shop (1824, built on the location of a forging shop that burnt the same year), and the South Shop (1824). During the Civil War, the three buildings were joined to form the Administration Building (Building 16). Additional construction included a third story, a five-story square tower (facing the Green) and a five columned Doric portico (Whittlesey, 1920, p.72).

A Second Empire style duplex Officers' Quarters (Buildings 5 and 6) was built in 1870. The three-story brick building with a slate roof has a one-story service extension to the rear and a wide balustraded porch with copper roof that spanned the three-bay entrance façade (Rettig, 1974, Description (1)).

The Guardhouse (Building 12) was built in 1880. It later served as officer's quarters. (Rettig, 1974, Description (1)).

In 1894 and 1898, additional Officers' Quarters (Buildings 2 and 3), similar in style to the Greek Revival style Officers' Quarters (Buildings 4, 7, 8 and 9), were built on the north side of the Green.

Twentieth-century buildings include a Gatehouse (Building 33) constructed in 1908 at the Byers and State Street entrance, which replaced an gatehouse that had stood since 1875, and the Commanding Officer's Garage (Building 18) built in 1937.

In addition to the buildings mentioned above, there were several other buildings present in 1968 for which specific historical information has not been obtained. However, general dating information is possible through a review of historic maps and aerial photographs dating from 1864 to 1966 [Albright, 1978, p. 114 "Plan of Main Grounds of Springfield Armory", May 2, 1904 and Figures 19, 25, and 30].

These include:

- Property and Manufacturing (Building 20) - c. 1932-1957
- Maintenance (Building 21) - by 1864
- Storehouse (Building 25) - c. 1932-1957
- Shop (Building 27) - earliest portion – 1809, later additions by 1864
- Ballistics (Building 28) - c. 1904-1932
- Shooting Range (Building 28a) - c. 1904-1932
- Gatehouse (Building 31) - c. 1932-1957
- Research and Engineering (Building 32) - c. 1904-1932
- Maintenance (Building 35) - c. 1904-1932

Between 1973 and 1980, Springfield Technical Community College (STCC) removed five buildings north of the Green to clear space for construction of new academic buildings. The buildings removed included the Paymaster's Quarters (Building 17), Officers' Quarters (Buildings 2, 3, and 4), and a Garage (Building 26). In addition, about one-third of the Shop (Building 27) was removed. In place of the historic buildings, which dated from the 1830s to the 1890s, STCC constructed three large, multi-storied, academic buildings: Deliso Hall (1973), Putnam (1974), and Scibelli Hall (1988). Also occurring during the same period, was a major alteration of the Property and Manufacturing Building, (Building 20). STCC added two additional floors to the building and remodeled the exterior in a contemporary style.

**Summary of Findings:**

Buildings and structures contribute to the significance of Armory Square as a defining characteristic of the landscape. Twenty-six of the thirty-one buildings present in 1968 (end of the period of significance) remain. Of the remaining historic buildings, twenty-four are contributing landscape features. The three contemporary academic buildings constructed by the STCC are non-contributing landscape features, and the significance of the two buildings considerably altered by the college is undetermined.



*Figure 53. The south façade of the West Arsenal (Building 11) the oldest extant building on the historic site. National Park Service, 2002*



Figure 54. The west (left) and the north (right) facades of the Master Armorer's Quarters (Building 10) on the STCC property. National Park Service, 2002.



Figure 55. Officer's Quarters (Building 7) on the STCC property. This former residence currently houses the campus police. National Park Service, 2002.



*Figure 56. Officer's Quarters (Building 8) is another Greek Revival style house and currently serves as the college's professional development center. National Park Service, 2002.*



*Figure 57. A third Greek Revival style Officer's Quarters (Building 9) on the STCC property. The Long Storehouse (Building 19) is in the background. National Park Service, 2002.*



*Figure 58. The west façade of the Main Arsenal (Building 13), on the NPS property. National Park Service, 2003.*



*Figure 59. The east façade of the Main Arsenal (Building 13) with NPS parking and the Green in the foreground. National Park Service, 2002.*



*Figure 60. The south façade of the Commanding Officer's Quarters (Building 1). National Park Service, 2003.*



*Figure 61. The Second Empire style duplex Officers' Quarters (Buildings 5 and 6) was built in 1870 and stands on the southwest corner of the Green. National Park Service, 2002.*



Figure 62. Gatehouse (Building 33), at the Byers and State Streets gate. National Park Service, 2002.

<b>Characteristic Feature</b>	<b>Type Of Contribution</b>	<b>LCS Structure Name</b>	<b>IDLCS Number</b>	<b>Structure Number</b>
Administration Building, North and South Shops (Building 16)	Contributing			
Ballistics (Building 28)	Contributing			
Commanding Officer's Garage	Contributing	Garage	022288	HS18
Commanding Officer's Quarters	Contributing	Commanding Officer's Quarters	022705	HS01
East Arsenal (Building 15)	Contributing			
Garage (Building 29)	Contributing			
Gatehouse	Contributing	Gatehouse	022289	HS33
Gatehouse (Building 31)	Contributing			
Guardhouse (Building 12)	Contributing			

Long Storehouse (Building 19)	Contributing			
Main Arsenal	Contributing	Main Arsenal	022287	HS13
Maintenance (Building 21)	Contributing			
Maintenance (Building 35)	Contributing			
Master Armorer's Quarters	Contributing	Master Armorer's Quarters	022657	HS10
Middle Arsenal (Building 14)	Contributing			
Officers' Quarters (Buildings 5 and 6)	Contributing			
Officers' Quarters (Buildings 7, 8, and 9)	Contributing			
Research and Engineering (Building 32)	Contributing			
Shooting Range (Building 28a)	Contributing			
Storehouse (Building 25)	Contributing			
West Arsenal (Building 11)	Contributing			
Deliso Hall	Non-Contributing			
Putnam Hall	Non-Contributing			
Scribell Hall	Non-Contributing			
Property and Manufacturing (Building 20)	Undetermined			
Shop (Building 27)	Undetermined			

## Views And Vistas

The panoramic view from the Main Arsenal (Building 13) tower was historically a well-known feature of Armory Square. Shortly after the main arsenal was built, Abbott wrote in Harper’s New Monthly Magazine that the tower deck “furnishes space for a large party of visitors to stand and survey the surrounding country. Nothing can be imagined more charming than the view presented...The Armory grounds upon one side, and the streets of the town upon the other...while in the distance the broad and luxuriant valley of the Connecticut is spread out to view...” (1852, p. 159). Although the tower has been restored, because of safety and accessibility issues, it is no longer open to the public.

### Summary of Findings:

Views and vistas contribute to the significance of Armory Square as a distinctive characteristic of the landscape. The inaccessibility of the tower to the public prohibits a significant historic view.



Figure 63. Panoramic views from the Main Arsenal (Building 13) tower. National Park Service, 2002.

Characteristic Feature	Type Of Contribution	LCS Structure Name	IDLCS Number	Structure Number
Panorama of the site and environs from Main Arsenal Tower	Contributing			

## Small Scale Features

Most notable among the small scale features located in Armory Square is the perimeter sandstone and cast iron fence and gates. Primarily because of prohibitive costs, the process of building the fence took fifteen years, beginning on August 16, 1847 with the leasing of a local quarry for the sandstone and ending in 1862 with the completion of the Pearl Street section. The high cost of the fence was partially circumvented by using stockpiled scrap iron already in the government's possession. The native bedrock, fine-grained red Longmeadow sandstone, was used for the fence's foundation, low base wall, and nine-foot posts. The ironwork design featured alternating forms of iron palings: round with spearheads and slightly lobed with pike heads. The iron gates were more intricately patterned. Oval center sections surrounded by lacy ironwork were superimposed on the vertical palings (Rettig, 1974, Description (3)). Today, the fence is riddled with graffiti, which is difficult to remove due to the nature of the sandstone material. The park has been in consultation with NPS experts on techniques for removal of graffiti from sandstone.

Historic electric lights are located in front of the Commanding Officer's Quarters (Building 1), around the outer edge of the circle drive in front of the house, and along the road that curves in front of and to the west of the Main Arsenal (Building 13), and the entrance road from Byers and State Streets. The first gas lights were installed on the historic site in 1847. The dates when the original gas lights were replaced with electric lights was not found in the secondary sources reviewed for this document. Contemporary style lighting that illuminate the Green and NPS parking areas are probably not historic features.

Other small-scale features include a stone with a plaque that marks the southwest corner of the original land purchase. Further research is necessary to determine if the feature was present prior to 1968. A mounting stone is part of the curb structure in front of the Officers' Quarters (Buildings 5 and 6, duplex) on the southwest corner of the Green. A circular drain inlet, an example of the site's historic drainage system, is located on the southwest corner of the Green.

Benches, bleachers, picnic tables, and trashcans on the Green are contemporary features, as are NPS identification and interpretive signs. While most of these features (signs and trashcans) are necessary for the site's current uses, others should be kept to a minimum. Located in the NPS service area behind the Commanding Officer's Quarters (Building 1) are a small storage shed, a large electrical shed/box, dumpsters, maintenance equipment, and surplus materials that detract from the historic character of the site. Finally, a multitude of types of signs are located throughout the historic site, some related to interpretation on the NPS property, with many others related to logistics such as directions and parking or warning signs.

### Summary of Findings:

Many small-scale features contribute to the significance and the historic character of the Armory Square landscape. The perimeter sandstone and iron fence, the drainage structure, the historic electrical lights, and the mounting stone date to the historic period. Other small-scale features such as contemporary lights and signs have been added since 1968 to facilitate site interpretation and contemporary use. While these features do not contribute to the historic significance of the landscape, they generally do not detract from it, and are necessary for the modern uses of the site. However, there is a lack of overall coordination between the signs, something which should be addressed during future planning and coordination efforts. Also, as mentioned previously, particular care should be taken in regards to the proliferation of modern small-scale features on the Green, perhaps limiting the storage of equipment, related to athletic use, from the Green during the off-season and high visitation events.



Figure 64. Perimeter fence and the Byers and State Streets gate. National Park Service, 2002.



Figure 65. A historic light on the circle in front of the Commanding Officer's Quarters (Building 1). The top of the wooded bluff is in the background. National Park Service, 2003.



*Figure 66. The stone with a plaque that marks the southwest corner of the 1801 land purchase. National Park Service, 2002.*



*Figure 67. A mounting stone that is built into the steps between the road and the walk in front of the Officers' Quarters (Building 5 and 6, duplex). National Park Service, 2003.*



*Figure 68. One type of drain inlet on the historic site. It is located on the southwest corner of the Green. National Park Service, 2003.*



*Figure 69. Interpretive signs are placed throughout the NPS property to highlight character-defining features of the historic site. National Park Service, 2003.*



Figure 70. Small-scale maintenance related contemporary features near the driveway behind the Commanding Officer's Quarters (Building 1). To the left are the electric shed and a small storage shed. National Park Service, 2003.

Characteristic Feature	Type Of Contribution	LCS Structure Name	IDLCS Number	Structure Number
Drain Inlet Grate	Contributing			
Lights (pre-1968), Byers & State Street Entrance Road and Circle, Commanding Officer's Quarters Front Entrance	Contributing	Light Standards	040454	HLF04
Mounting Stone	Contributing			
Original Purchase Marker	Contributing	Original Purchase Marker	040455	CMO1
Perimeter Fence and Gates	Contributing	Fence	022296	HS34
Tennis Court	Contributing	Tennis Court	022602	HS35
Electrical Shed	Non-Contributing			
Interpretive Signs	Non-Contributing			

Maintenance Shed	Non-Contributing
NPS Identification Sign	Non-Contributing
Picnic Tables, Benches, Bleachers, Trashcans	Non-Contributing

## Archeological Sites

Armory Square has several potential archeological sites dating back to the period of contact. Archeological surveys conducted to date, however, indicate that the discovery of undisturbed prehistoric, cultural remains is highly unlikely, due to significant amount of ground disturbance that has occurred on the site since the eighteenth century.

Three archeological surveys were carried out on the site. The first, in 1981, examined the site of a proposed electrical line corridor. Twenty-three test pits were dug from the Main Arsenal (Building 13) to Pearl Street along the top eastern edge of the ravine. The excavations did not yield evidence of the schoolhouse and residences known to have occupied the area during the early years of Springfield Armory or of the icehouse and greenhouses present in later years. It did uncover utility-related pipes and drains, and the soil strata provided evidence of the long history of hillside grading and filling. (Fiero, 1982, p.37). Former employees told Fiero that burials had been discovered while excavating around the northern greenhouse. This is probably a part of the same graveyard of 1812 soldiers mentioned in “King’s Handbook of Springfield” (reproduced in Albright, 1978, p. 114-124). This potential graveyard site is located east of Fiero’s archeological survey site on STCC property, so was not included in the report findings.

The second archeological survey was conducted in 1984 prior to installation of a new drainage system in the area surrounding the Main Arsenal (Building 13). This report recommended close monitoring of any disturbance below the top one-foot layer of fill added for the athletic fields. In particular, it recommended avoiding any earth moving in the areas of the former sites of the Master Armorer’s Quarters (Building 10) and four other sites where unidentified brick and wood rubble was found (Lackey and Sacchi, 1984, p. 144-145). The survey concluded that the condition of the site reflected the constant struggle, during the period of significance, against nature and erosion, first mentioned by Superintendent Roswell Lee in 1825 (Whittlesley, 1920, p. 146).

The third was scheduled because of trenching in 2002 that occurred along the entire south edge of the Green.

The following locations of archeological resources on the NPS property have been identified: the Master Armorer’s Quarters (Building 10), built 1833 and moved 1880; and icehouse, circa 1864; an icehouse site near the Commanding Officer’s Quarters (Building 1); the original site of the Paymaster’s Quarters (Building 17); a sentry box near the State Street pedestrian gate; an octagonal gatehouse, 1875-1905, at the site of the present Gatehouse (Building 33); the entrance road that ran from State Street to the schoolhouse; the schoolhouse site; the pay office site; the site of Solmon Hoton’s house; the site of a fountain in the circle between the Main Arsenal (Building 13) and Commanding Officer’s Quarters, c. 1851; the site of the monument, c. 1877-1905, on the north side of the road that enters from the corner of State and Byers Streets; the greenhouses sites, c. 1902-1958; the site of pool and fountain near the northwest corner of the Main Arsenal; the site of the pool at the base of the ravine and the sewer and drain line the drained to it, and; the site of the rose arbor in the circle at the end of the Commanding Officer’s Quarters (Building 1) driveway. The “Springfield Armory, General Management Plan/Development Concept Plan” (1986, p. 19) depicts the location of each site.

### Summary of Findings:

Because of the history of disturbance since the eighteenth century, it is unlikely that undisturbed deposits of prehistoric cultural remains will be discovered. From the eighteenth century through the historic period, there are archeological resources associated with lost features associated with the NPS

property and there may also be archeological resources located on the STCC property. Below-ground archeological sites are not part of the scope of Cultural Landscapes Inventories.

<b>Characteristic Feature</b>	<b>Type Of Contribution</b>	<b>LCS Structure Name</b>	<b>IDLCS Number</b>	<b>Structure Number</b>
Circa 1877 Monument Site	Undetermined			
Fountains Sites	Undetermined			
Greenhouses Sites	Undetermined			
Icehouses sites	Undetermined			
Octagonal Gatehouse Site	Undetermined			
Original Master Armorer's Quarters	Undetermined			
Original Paymaster's Quarters	Undetermined			
Pay Office Site	Undetermined			
Pool at Base of Ravine Site	Undetermined			
Road Traces	Undetermined			
Rose Arbor Site	Undetermined			
Schoolhouse Site	Undetermined			
Sentry Box Site	Undetermined			
Solomon Hoton's House Site	Undetermined			
The Green	Undetermined			

## Management Information

### Descriptive And Geographic Information

<b>Historic Name(s):</b>	Hill Shops Armory Square Springfield Armory
<b>Current Name(s):</b>	Springfield Armory National Historic Site Armory Square
<b>Management Unit:</b>	
<b>Tract Numbers:</b>	
<b>State and County:</b>	Hampden County, MA
<b>Size (acres):</b>	54.92

### Boundary UTM

Boundary UTM(s):	Source	Type	Datum	Zone	Easting	Northing
	USGS Map 1:24,000	Area	NAD 83	18	700060	4664760
	USGS Map 1:24,000	Area	NAD 83	18	700280	4664380
	USGS Map 1:24,000	Area	NAD 83	18	699990	4664070
	USGS Map 1:24,000	Area	NAD 83	18	699560	4664370

**GIS File Name:**

**GIS File Description:**

### National Register Information

**National Register Documentation:** Entered -- Inadequately Documented

**Explanatory Narrative:**

The Springfield Armory was designated a National Historic Landmark on December 19, 1960, under the authority of the Historic Sites Act of 1935. In 1966, the site was administratively listed in the National Register of Historic Places with the establishment of the National Historic Preservation Act. The Armory was documented for the National Register of Historic Places on December 12, 1975 after several contributing buildings had been demolished or altered (early 1970's), and new buildings were constructed or in the process of being constructed.

The National Register of Historic Places nomination form (NRHP, 12/12/75) does not list several existing structures that were present during the period of significance. In addition, the existing form does not adequately address the existing landscape characteristics and features.

**NRIS Information:**

NRIS Number: 66000898  
Primary Certification: Listed In The National Register  
Primary Certification Date: 10/15/1966  
Other Certifications: National Landmark Boundary  
Approved  
Other Certification Date: 12/19/1975  
Name In National Register: Springfield Armory National Historic Site  
Other Names In  
National Register: Springfield Armory National Historic Site;Armory  
Square;Springfield Armory National Historic  
Site;Armory Square

NRIS Number: 66000898  
Primary Certification: Listed In The National Register  
Primary Certification Date: 10/15/1966  
Other Certifications: Designated National Landmark  
Other Certification Date: 12/19/1960  
Name In National Register: Springfield Armory National Historic Site  
Other Names In  
National Register: Springfield Armory National Historic Site;Armory  
Square;Springfield Armory National Historic  
Site;Armory Square

NRIS Number: 66000898  
Primary Certification: Listed In The National Register  
Primary Certification Date: 10/15/1966  
Other Certifications: Designated Unit Of The  
National Park Service  
Other Certification Date: 10/19/1974  
Name In National Register: Springfield Armory National Historic Site  
Other Names In  
National Register: Springfield Armory National Historic Site;Armory  
Square;Springfield Armory National Historic  
Site;Armory Square

**National Register Eligibility:** Eligible -- SHPO Consensus Determination

**Explanatory Narrative:**

The CLI finds the Armory Square landscape eligible for the National Register as a contributing resource of the Springfield Armory National Historic Site. In addition the CLI recommends that the list of contributing features, included at the end of the Analysis and Evaluation section be added to the National Register documentation for this property.

**Date of Eligibility Determination:** 9/22/2004

**National Register Classification:** Site

**Significance Level:** National

**Contributing/Individual:** Individual

**Significance Criteria:** C -- Inventory Unit embodies distinctive characteristics of type/period/method of construction; or represents work of master; or possesses high artistic values; or represents significant/distinguishable entity whose components lack individual distinction  
A -- Inventory Unit is associated with events that have made a significant contribution to the broad patterns of our history

### **Period Of Significance**

Time Period: 1778 - 1968 AD

Historic Context Theme: Shaping the Political Landscape

Historic Context Subtheme: The American Revolution

Historic Context Facet: War in the North

Historic Context Theme: Shaping the Political Landscape

Historic Context Subtheme: Political and Military Affairs 1783-1860

Historic Context Facet: Confederation Period, 1783-1789

Historic Context Theme: Shaping the Political Landscape

Historic Context Subtheme: The Civil War

Historic Context Facet: Battles In The North And South

Historic Context Theme: Shaping the Political Landscape

Historic Context Subtheme: Political and Military Affairs 1865-1939

Historic Context Facet: America Becomes A World Power, 1865-1914

Historic Context Theme: Shaping the Political Landscape

Historic Context Subtheme: Political and Military Affairs After 1945

Historic Context Facet: The Aftermath Of WW II

Historic Context Theme: Expanding Science and Technology

Historic Context Subtheme: Technology (Engineering and Invention)

Historic Context Facet: Military (Fortifications, Weapons, And War Vehicles)

Historic Context Theme: Developing the American Economy

Historic Context Subtheme: Manufacturing Organizations

Historic Context Facet: Machinery And Instruments

Time Period: 1794 AD

Historic Context Theme: Shaping the Political Landscape  
Historic Context Subtheme: Political and Military Affairs 1783-1860  
Historic Context Facet: Confederation Period, 1783-1789

**Area Of Significance:**

Category: Military  
Priority: 1  
Category: Politics/Government  
Priority: 2  
Category: Landscape Architecture  
Priority: 3  
Category: Architecture  
Priority: 4

## National Historic Landmark Information

**National Historic  
Landmark Status:** Yes  
**Date Determined Landmark:** 12/19/1960  
**Landmark Theme:**

## World Heritage Site Information

**World Heritage Site Status:** No

## Cultural Landscape Type and Use

**Cultural Landscape Type:** Historic Site

**Current and Historic Use/Function:**

Use/Function Category: Defense  
Use/Function: Arms Storage  
Detailed Use/Function: Arms Storage  
Type Of Use/Function: Historic

Use/Function Category: Recreation/Culture  
Use/Function: Museum (Exhibition Hall)  
Detailed Use/Function: Museum (Exhibition Hall)-Other  
Type Of Use/Function: Current

Use/Function Category: Education  
Use/Function: College (University)  
Detailed Use/Function: College (University)  
Type Of Use/Function: Current

## Ethnographic Information

**Ethnographic Survey Conducted:** Yes-Unrestricted Information

### Significance Description:

A draft copy of "Springfield Armory National Historic Site: Ethnographic Resources Report" (dated 8 July 2003) has been prepared by David Jenkins. It has not been input into the ERI Database.

The report was based on interviews, a limited review of relevant literature and NPS reports, and a tour of the site in spring 2003. "Initial discussions with various park personnel indicated there were no known traditionally associated peoples, and hence no ethnographic resources at Springfield Armory. This report, however, suggests that the park may have a variety of ethnographic resources, the complete documentation of which requires additional research."

### Summary of Potential Ethnographic Resources

Traditionally Associated Peoples - Armory employees/descendants, African Americans

Ethnographic Resources - Oral history tapes, documents, photographs, Armory site

Significance - Familial, historical, specialized knowledge

## Adjacent Lands Information

**Do Adjacent Lands Contribute?** Yes

### Adjacent Lands Description:

Adjacent lands directly northeast of the site contribute to the significance of the property as a national armory. Federal Square is the eastern portion of the Armory Square/Federal Square area collectively known as the Hill Shops and is bounded by Federal Street to the west, State Street to the south, Oak and Magazine Streets to the east, and Lincoln Street to the north. Similar to the character of Armory Square, Federal Square consists mainly of a three-story brick complex of buildings surrounding three sides of an open space fronting on Federal Street. This open space, once an entrance Green to Federal Square, is now primarily surface parking. Behind these buildings, to the northeast, there is large single-story facility less compatible with the architectural character and spacious grounds of Armory Square. Federal Square is privately owned and is not

managed as a cultural resource.

The surrounding blocks to the north and west are primarily residential areas. Pearl Street to the north has mostly individual apartment buildings, and large surface parking areas, while Byers Street to the west contains primarily attached row houses fronting on the Armory grounds. State Street to the south is a heavily traveled four-lane route through downtown Springfield containing a mix of office, retail, and municipal buildings.

In addition, two other sites, the Water Shops (Upper Water Shops/Mill Shops), and the Railhead Facility (Page Boulevard Facility), both located several blocks away, contribute to the significance of the property as a national armory. The one and two story brick Water Shops is a manufacturing complex located on either side of and spanning the Mill River on Walnut Street approximately one mile southeast of Armory Square. The exterior retains much of its historic character. The Water Shops are privately owned and not managed as a cultural resource. The Railhead Facility, located on Page Boulevard approximately one and one half miles northeast of Armory Square, is also privately owned and retains little of its historic character.

## General Management Information

**Management Category:** Must Be Preserved And Maintained

**Management Category Date:** 12/19/1960

**Explanatory Narrative:**

The site must be preserved and maintained due to its designation as a National Historic Landmark.

## Condition Assessment And Impacts

The criteria for determining the condition of landscapes is consistent with the Resource Management Plan Guideline definitions (1994) and is decided with the concurrence of park management. Cultural landscape conditions are defined as follows:

*Good:* indicates the landscape shows no clear evidence of major negative disturbance and deterioration by natural and/or human forces. The landscape's cultural and natural values are as well preserved as can be expected under the given environmental conditions. No immediate corrective action is required to maintain its current condition.

*Fair:* indicates the landscape shows clear evidence of minor disturbances and deterioration by natural and/or human forces, and some degree of corrective action is needed within 3-5 years to prevent further harm to its cultural and/or natural values. If left to continue without the appropriate corrective action, the cumulative effect of the deterioration of many of the character-defining elements will cause the landscape to degrade to a poor condition.

*Poor:* indicates the landscape shows clear evidence of major disturbance and rapid deterioration by natural and/or human forces. Immediate corrective action is required to protect and preserve the remaining historical and natural values.

*Undetermined:* Not enough information available to make an evaluation.

**Condition Assessment:** Fair

**Assessment Date:** 02/25/2004

**Date Recorded:** 05/20/2004

**Park Management Concurrence:** Yes      **Concurrence Date:** 7/20/2004

**Level Of Impact Severity:** Moderate

**Stabilization Measures:**

**Impact:**

Type of Impact: Improper Drainage

Internal/External: Both Internal and External

Description:

Natural springs located on the western portion of the site have caused continual problems throughout the site's history, but were exacerbated when regrading was completed in 1969 to create athletic fields. Water from the springs causes slumping to the hillside throughout the year. In the winter the water flows into the foundation of the perimeter fence and sidewalk along Byers Street and has caused considerable damage through the process of freeze-thaw. In addition, improper drainage causes large ice patches along Pearl Street which are a safety hazard to pedestrians.

Type of Impact: Erosion

Internal/External: Both Internal and External

Description:

Damaging erosion occurs mainly on slopes along the slopes at the western edge of the site, and along the steep slopes along State Street, mainly outside the perimeter fence.

Type of Impact: Vandalism/Theft/Arson

Internal/External: Both Internal and External

Description:

Vandalism, mainly graffiti, has been a constant problem along the perimeter fence. In particular spraypainting on the soft sandstone material of the posts has caused damage that is difficult to remove without damaging the post itself.

Type of Impact: Deferred Maintenance

Internal/External: Both Internal and External

Description:

Deferred Maintenance is affecting the condition of buildings and structures, the perimeter fence and sidewalk, and some vegetation. All are in need of stabilization and repairs to prevent further deterioration.

Type of Impact: Vegetation/Invasive Plants

Internal/External: Both Internal and External

Description:

Woody vegetation and invasive plants exist mainly along the slopes facing Byers Street and Pearl Street. While some has been cleared, this has not been done consistently around the National Historic Site. A particularly difficult and unique issue exists along part of the area bordering Pearl Street that was once the site of the firing range. Due to the high content of lead in the soil of this area, vegetation clearing has been halted. Further research should be done into ways that vegetation clearing can be continued while ensuring the safety of those working in this area of the STCC campus.

## Agreements, Legal Interest, and Access

**Management Agreement:** Memorandum Of Understanding

**Expiration Date:** UNKNOWN

**Explanatory Narrative:**

A MOU exists between the NPS and Commonwealth of Massachusetts which oversees the STCC.

**NPS Legal Interest:** Less Than Fee Simple

**Explanatory Narrative:**

Though the national historic site comprises the entire 54.92-acre Armory Square National Register district, the National Park Service owns the 20.32-acre western portion of the property west of the Green (fee simple interest). On the north, south and east, the NPS property is bounded by, and includes the perimeter iron fence. The remaining 34.61 acres of the property are owned by the Commonwealth of Massachusetts, and operated by the Springfield Technical Community College as an academic campus. The streetscape along the perimeter of the Springfield Armory, which includes a tree line, a grass strip and a historically significant brick walkway, are owned and managed by the City of Springfield.

**NPS Legal Interest:** None - State Government Owned

**Explanatory Narrative:**

**Other Agency Or Organization:**

**NPS Legal Interest:** None - Local Government Owned

**Explanatory Narrative:**

**Other Agency Or Organization:**

**Public Access:** Unrestricted

## Treatment

**Approved Treatment:** Undetermined

**Approved Treatment Document:**

**Document Date:**

**Explanatory Narrative:**

A General Management Plan (GMP) is scheduled to begin in FY05.

**Approved Treatment Completed:**

## Approved Treatment Cost

**LCS Structure Approved**

**Treatment Cost:** \$219,680

**Landscape Approved**

**Treatment Cost:** \$0

**Cost Date:** January 1, 1994

**Level of Estimate:**

**Cost Estimator:**

**Explanatory Description:** The estimate listed above is the sum of all estimates listed in the LCS for the following structures: Main Arsenal, Gatehouse, Fence, Tennis Court, Concrete Walkway System, Flagstone Walkway, Brick Perimeter Sidewalks, and Light Standards. No estimates were listed for the following structures on the LCS: Garage, Master Armorer's Quarters, Commanding Officer's Quarters, Circular Driveway, Original Purchase Marker, and Roadway System.

## Stabilization Costs

**LCS Structure Stabilization Cost:** \$0

**Landscape Stabilization Costs:** \$473,802

**Cost Date:** January 20, 2004

**Level Of Estimate:** B - Preliminary Plans/HSR-CLR

**Cost Estimator:** Park

**Explanatory Description:** PMIS 22629 – Establish Turf Management Program -

\$9,856

PMIS 75519 – Repair Historic Concrete and Flagstone Walkways - \$15,000

PMIS 12037 - Replace Historic Fence Parts & Light Standards - \$22,750

PMIS 75535 - Repair Graffiti Damage on Sandstone Posts on the Historic Armory Fence - \$25,000

PMIS 74623 – Provide Emergency Conditions Assessment Report and Preliminary Repairs for Historic Sidewalk - \$50,000

PMIS 10730 – Rehab Historic Fence - \$59,136

PMIS 75440 - Repair and Repave Historic Circular Driveways and Concrete Road - \$96,000

PMIS 12031 - Replace Storm Drains And Lines From Buildings & Roads \$98,560

PMIS 75452 - Repair Historic Roadway System for Springfield Armory NHS - \$112,500

Olmsted Center for Landscape Preservation Estimate (2004) - Assess structural conditions and perform arboriculture operations to correct structural deterioration; remove dead, dying and diseased limbs; minimize hazardous conditions; install cables & braces to improve stability, as needed; and improve the health of the trees. - \$18,500.00

## Documentation Assessment and Checklist

**Documentation Assessment:** Fair

## Appendix

### Bibliography

#### Citations:

Citation Author: Fiero, Kathleen W  
Citation Title: Archeological Survey of a Proposed Electrical Line Corridor, Springfield Armory National Historic Site, Springfield, Massachusetts  
Year of Publication: 1982  
Publisher: U.S. DOI, NPS, Denver, CO  
Source Name: CRBIB  
Citation Number: 010511  
Citation Type: Both Graphic And Narrative  
Citation Location: HFC

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Citation Author: Staff  
Citation Title: Master Plan, Springfield Armory National Historic Site  
Year of Publication: 1971  
Publisher: NPS Northeast Region  
Source Name: CRBIB  
Citation Number: 011710  
Citation Type: Both Graphic And Narrative  
Citation Location: HFC

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Citation Author: Albright, John  
Citation Title: Historic Structure Report, Historical Data and Historical Base Map, Springfield Armory National Historic Site  
Year of Publication: 1978  
Publisher: NPS, Denver, CO  
Source Name: CRBIB  
Citation Number: 010512  
Citation Type: Both Graphic And Narrative  
Citation Location: WASO

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Citation Author: Carroll, Orville W  
Citation Title: Rehabilitation of Cast Iron Fence, Byers Street  
Year of Publication: 1984  
Source Name: CRBIB  
Citation Number: 400246  
Citation Type: Both Graphic And Narrative  
Citation Location: SPAR/NERO

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Citation Author: Carroll, Orville W  
Citation Title: Rehabilitation of Cast Iron Fence, Pearl Street  
Year of Publication: 1984  
Source Name: CRBIB  
Citation Number: 400247  
Citation Type: Both Graphic And Narrative  
Citation Location: SPAR/NERO

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Citation Author: Carper, Robert L//Turk, Richard G  
Citation Title: Historic Structure Report, Architectural Data Section,  
Springfield Armory National Historic Site  
Year of Publication: 1984  
Publisher: USDOJ, NPS  
Source Name: CRBIB  
Citation Number: 011709  
Citation Type: Both Graphic And Narrative

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Citation Author: Decesare, Louise M  
Citation Title: Archeological Collections Management at Springfield Armory National Historic Site,Massachusettes  
Year of Publication: 1990  
Publisher: USDO, NPS, NARO, Division of Cultural Management  
Source Name: CRBIB  
Citation Number: 015733  
Citation Type: Both Graphic And Narrative  
Citation Location: HFC

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Citation Author: Raber, Michael S//Malone, Patrick M//Gordon, Robert B//Cooper, Carolyn C  
Citation Title: Conservative Innovators and Military Small Arms: An Industrial History of the Springfield Armory, 1794-1968  
Year of Publication: 1989  
Publisher: NPS  
Source Name: CRBIB  
Citation Number: 015090  
Citation Type: Narrative  
Citation Location: WASO/SPAR

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Citation Author: Whittlesey, Derwent S.  
Citation Title: The Springfield Armory  
Year of Publication: 1920  
Publisher: University of Chicago  
Source Name: CRBIB  
Citation Number: 400213  
Citation Type: Narrative  
Citation Location: NERO/SPAR

---

Citation Author: Abbott, Jacob  
Citation Title: The Armory at Springfield  
Year of Publication: 1852  
Publisher: Harper's New Monthly Magazine, Vol. V, No. 26  
Source Name: Website  
Citation Type: Both Graphic And Narrative  
Citation Location: <http://cdl.library.cornell.edu/gifcache/moa/harp/harp0005/00155.TIF6.gif>

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Citation Title: American Memory Historical Collection for the National Digital Library  
Year of Publication: 2002  
Publisher: Library of Congress  
Source Name: Library Of Congress/Dewey Decimal  
Citation Type: Graphic  
Citation Location: <http://rs6.loc.gov/ammem/amhome.html>

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Citation Author: Bronson-Geoffroy, Dru  
Citation Title: Telephone conversation with author, 29 July 2002  
Year of Publication: 2002  
Source Name: Oral Interview  
Citation Type: Narrative

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Citation Author: Calliope Film Resources  
Citation Title: Shay's Rebellion  
Year of Publication: 2004  
Source Name: Website  
Citation Type: Narrative  
Citation Location: <http://www.calliope.org/shays/shays2.html>

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Citation Author: Coffin, Margie and Charlie Pepper  
Citation Title: Springfield Armory National Historic Site Landscape Preservation Maintenance Program  
Year of Publication: 1992  
Publisher: USDO, NPS, Olmsted Center for Landscape Preservation  
Source Name: Olmsted Center for Landscape Preservation  
Citation Type: Both Graphic And Narrative  
Citation Location: Olmsted Center for Landscape Preservation

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Citation Author: Dvarecka, C. L.  
Citation Title: Springfield Armory, Pointless Sacrifice  
Year of Publication: 1968  
Publisher: Prolitho Pub., Ludlow, MA  
Source Name: unknown  
Citation Type: Narrative

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Citation Author: Frisch, Michael H.  
Citation Title: Town into City: Springfield, Massachusetts and the Meaning of Community, 1840-1880  
Year of Publication: 1972  
Publisher: Harvard University Press, Cambridge, MA  
Source Name: unknown  
Citation Type: Both Graphic And Narrative

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Citation Title: Library of Congress Geography and Map Division, Geography and Map Reading Room, Map Collections 1500-1999  
Year of Publication: 2002  
Publisher: Library of Congress  
Source Name: Library Of Congress/Dewey Decimal  
Citation Type: Graphic  
Citation Location: <http://lcweb.loc.gov/rr/geogmap/gmpage.html>

---

Citation Author: Lackey, Louana M. and Richard R. Sacchi  
Citation Title: Archeological Investigations at Springfield Armory, Springfield, Massachusetts  
Year of Publication: 1984  
Publisher: NPS and the American University Applied Archeology Center, Rockville, MD  
Source Name: SPAR  
Citation Type: Both Graphic And Narrative  
Citation Location: SPAR

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Citation Author: Rettig, Polly M. and Charles E. Shedd  
Citation Title: Nomination Form for Springfield Armory (Armory Square) (National Historic Landmark designation)  
Year of Publication: 1974  
Publisher: NPS, Washington, D.C.  
Source Name: National Register of Historic Places  
Citation Type: Both Graphic And Narrative

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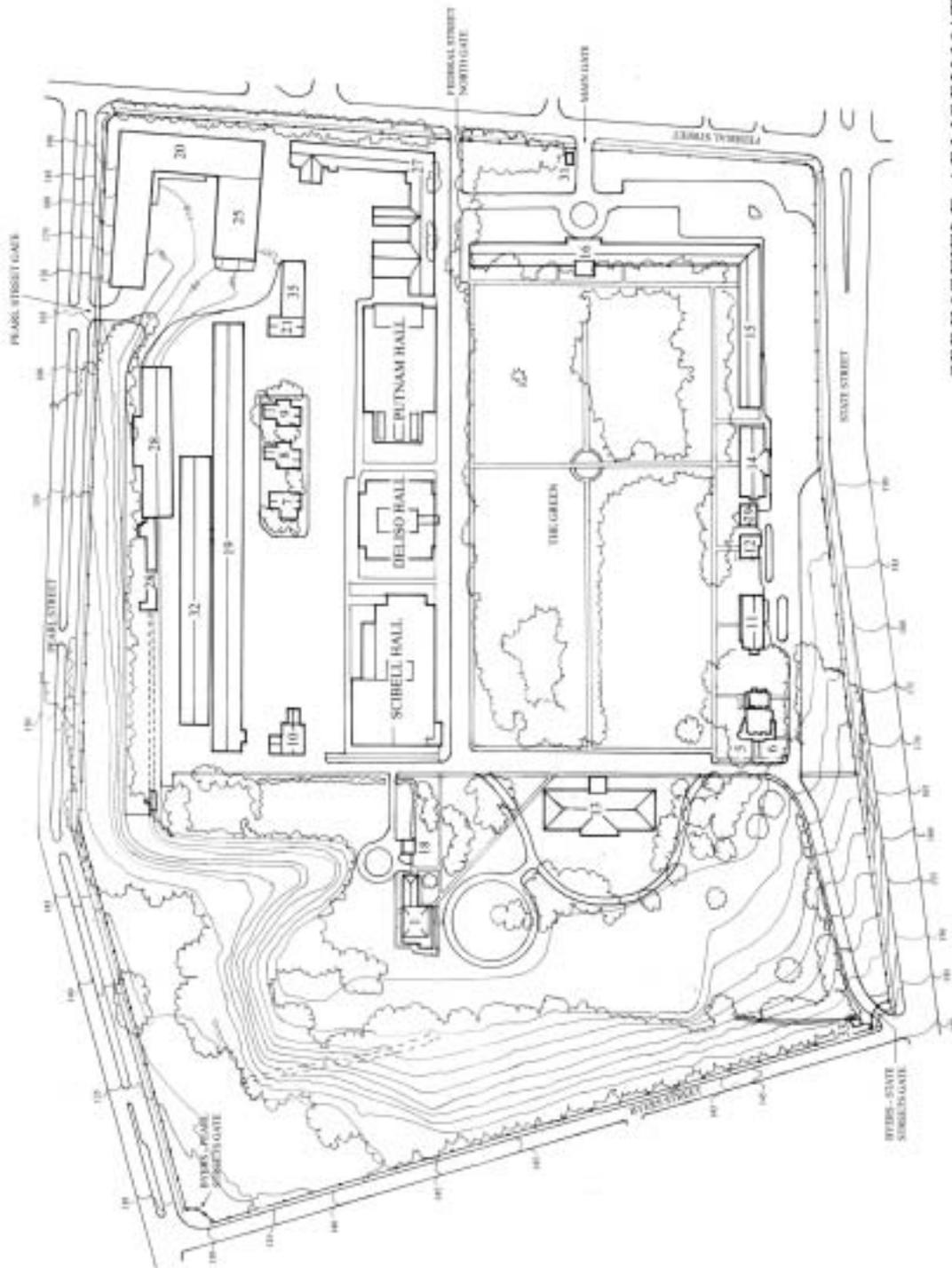
Citation Author: Whisker, James B.  
Citation Title: The United States Armory at Springfield, 1795-1865  
Year of Publication: 1997  
Publisher: E. Mellen Press, Lewiston  
Source Name: unknown  
Citation Type: Narrative

---

Citation Author: Whitney, James S.  
Citation Title: Annual Report of the Principal Operation at the Springfield Armory  
Year of Publication: 1859  
Publisher: Springfield Armory  
Source Name: SPAR  
Citation Type: Narrative  
Citation Location: SPAR

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## Supplemental Information



**BUILDINGS**

- 1 COMMANDING OFFICER'S QUARTERS
- 5 OFFICER'S QUARTERS
- 6 OFFICER'S QUARTERS
- 7 OFFICER'S QUARTERS
- 8 OFFICER'S QUARTERS
- 9 OFFICER'S QUARTERS
- 10 MASTER ARMORER'S QUARTERS
- 11 WEST ARSENAL
- 12 GUARDHOUSE
- 13 MAIN ARSENAL
- 14 MIDDLE ARSENAL
- 15 ADMINISTRATION
- 16 ADMINISTRATION
- 18 COMMANDING OFFICER'S GARAGE
- 19 LONG STOREHOUSE
- 20 PROPERTY AND MANUFACTURING
- 21 MAINTENANCE
- 25 STOREHOUSE
- 27 SHOP
- 28 BALLISTICS
- 28a SHOOTING RANGE
- 29 GARAGE
- 32 RESEARCH AND ENGINEERING
- 31 GATEHOUSE
- 33 GATEHOUSE
- 34 MAINTENANCE

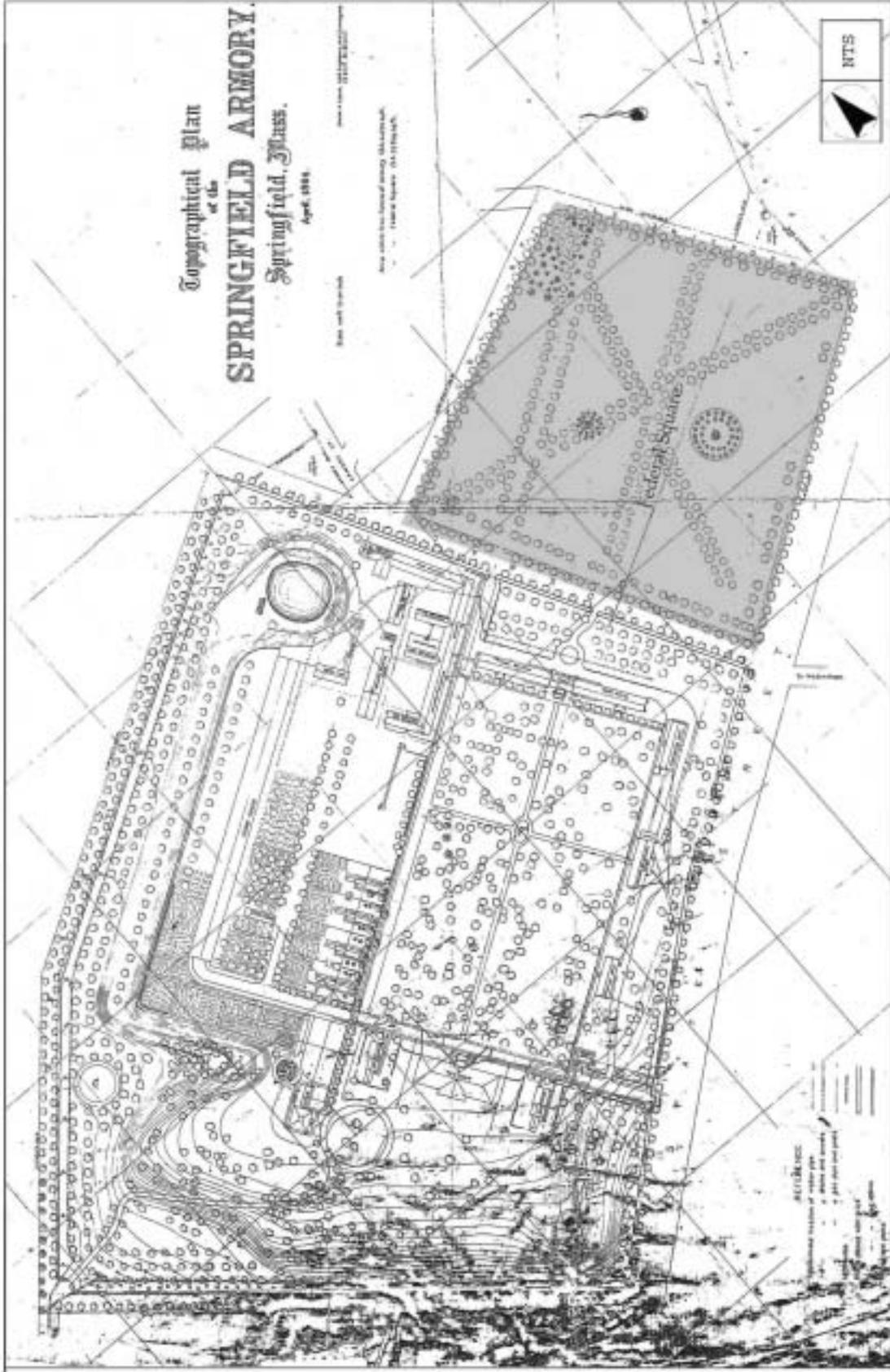
FENCE

CONTOURS, 5 ft. Interval



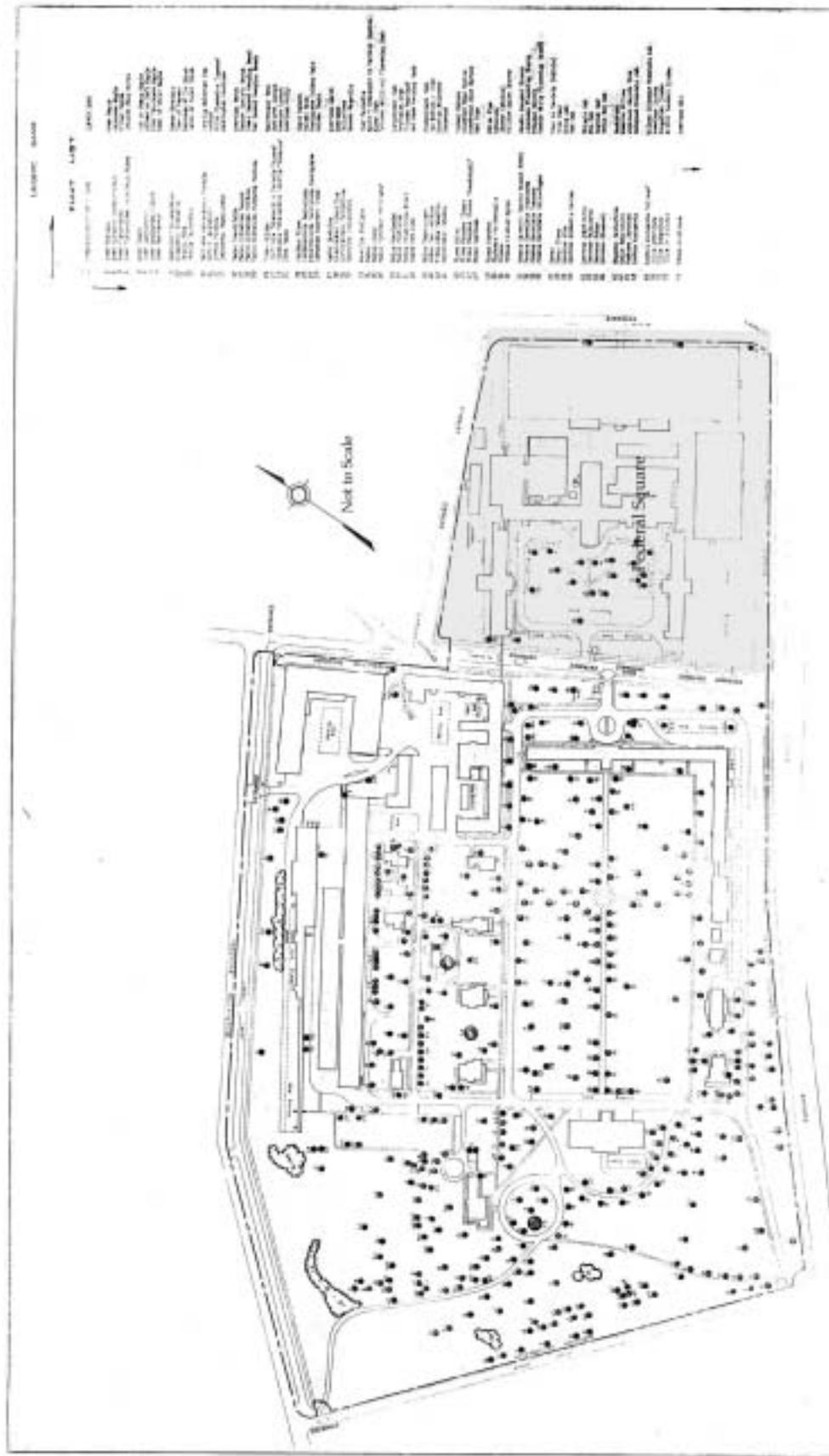
**SPRINGFIELD ARMORY NATIONAL HISTORIC SITE**





1864 Topographical Plan of Armory Hill. (SPAR archive map files). Federal Square (digitally annotated by SUNY-ESF) is not part of the Springfield Armory National Historic Site.





Springfield Armory Hill Shops, trees, date unknown

Springfield Armory Hill Shops, trees, date unknown (SPAR archive files)  
 Federal Square (digitally annotated by SUNY-ESF) is not part of the Springfield Armory National Historic Site.