



Honorable Thomas P. Koch, Mayor
Quincy Department of Planning and Economic Development

Hancock Cemetery

Master Conservation Plan

Halvorson Design Partnership

Building + Monument Conservation . Sutherland Conservation + Consulting
Northern Geomantics . Shary Page Berg



City of Quincy

Honorable Thomas P. Koch, Mayor

Planning + Community Development Department

Dennis E. Harrington, Director

This project was supported by a grant from the
City of Quincy Community Preservation Act fund.

Master Conservation Plan

Hancock Cemetery

Quincy, Massachusetts

January, 2012

Prepared for the

City of Quincy
Planning + Community Development Department
Quincy Historical Commission

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Master Conservation Plan

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Chapter one

Overview

Introduction

Hancock Cemetery is in its 372th year (at least: it may be even older.) Like many old burial grounds in New England, it is one of the earliest communal places in its community. And like many similar places, it faces both opportunities and challenges as it approaches its fifth century. Unlike many other municipal graveyards, Hancock Cemetery has direct associations with many men and women prominent in the history of the nation, including two Presidents and their wives and families, other important Revolutionary-era families such as the Hancocks and Quincys, and a President of Harvard College from the 1600's.



From within Hancock Cemetery, the historic links with the United First Parish Church ("The Church of the Presidents") are easy to understand.

It is also one of the nicest early graveyards in New England. The gravestones are in very good condition compared with similar sites of their era. The quality and variety of the slate markers are extraordinary and renowned. And, even though granite only became popular as a material for grave markers late in Hancock Cemetery's active period, its collection of handsome Quincy Granite features is striking. These include several upright monuments and walls, the base of an elegant cast iron fence and elements of the Cemetery's many mound tombs. Add the association of the Cemetery with persons and families important in the nation's history, and it is no surprise that this burial ground is also a major tourist attraction.



The marker of Lieut. John Cleverly (d. 1703) is widely known among scholars and fans of slate as "The Peacock Stone." Its carver, who engraved his initials above the death's head, is known as "J.N.", active during the late 17th c.- early 18th c. in the Boston area. This may be the earliest use of peacocks on a gravestone.

The Master Conservation Plan project

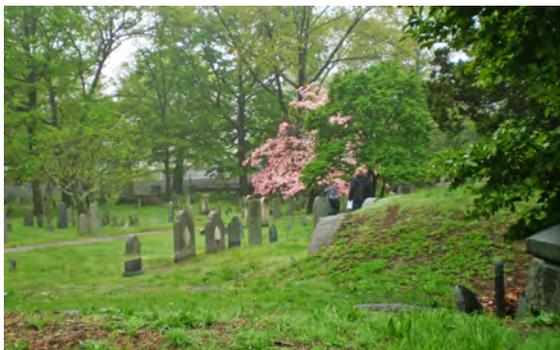
Late in 2010, the City of Quincy, Massachusetts commissioned a multi-disciplinary evaluation of the resources present in Hancock Cemetery. The project prospectus called for a systematic inventory of all memorial objects and historic landscape features, an assessment of conditions and a program for stabilization, restoration, repair, maintenance and interpretation of this valuable resource. Administered by the City's Planning and Community Development Department, and advised by an ad hoc Advisory Committee (see Acknowledgements for members), the project began with a competitive consultant selection process.

The consultant team hired for the project included:

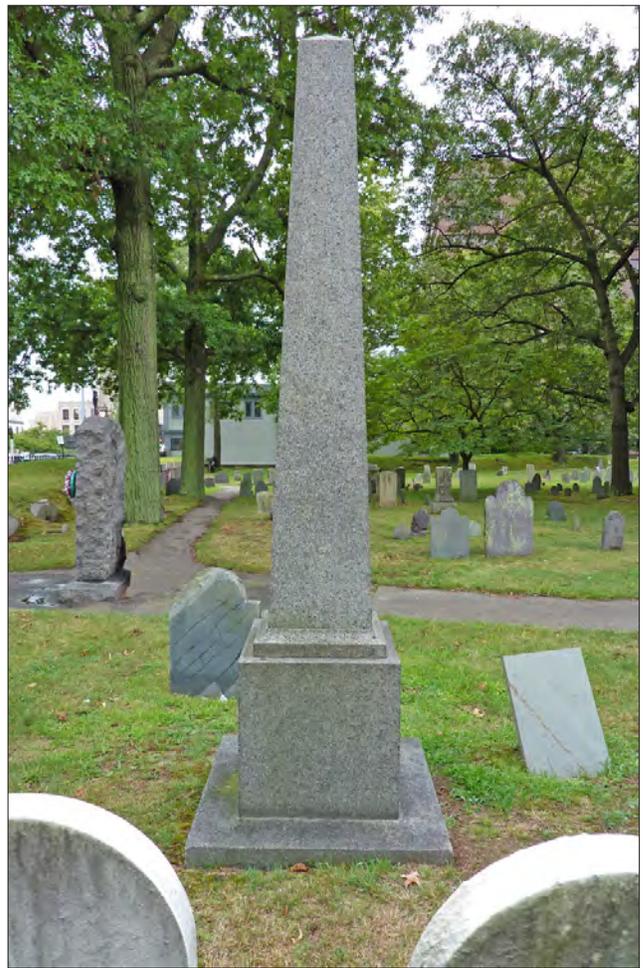
Halvorson Design Partnership, Inc. , Boston MA	<i>Prime consultant historic landscape architecture</i>
Sutherland Conservation & Consulting , Augusta ME	<i>Grave Markers</i>
Building & Monument Conservation , Arlington MA	<i>Tombs and walls; training workshop</i>
Shary Page Berg , Cambridge MA	<i>History</i>
Northern Geomantics , Hallowell, ME	<i>Mapping</i>

The methodology followed by the Halvorson Design team involved a meticulous inventory and assessment of the condition of the landscape and all of the historic "objects" in the Cemetery, creation of a photographic inventory of every object, a searchable spreadsheet of the findings and recommendations for prioritized treatment and management of the resources of the site.

The team also conducted a Training Workshop at the Cemetery, attended by 35 people, which covered the technical aspects of caring for the Cemetery and a demonstration of gravestone repair.



Hancock Cemetery is as much a vernacular historic landscape as it is a priceless collection of artifacts and memories.



The 1846 monument over the grave of Charles Blake not only showcases the fine quality of Quincy Granite, it testifies to the remarkable skills of Quincy's artisans: it is carved from a single solid piece of stone.

Planning Context

This project comes a significant point in the history of Quincy with tourism and downtown revitalization both on an upward trajectory. Plans and projects already underway—including the New Quincy Center initiative and the Adams Green public open space—will be changing the surroundings of Hancock Cemetery in the near future.

These developments present both opportunities and potential concerns for the Cemetery. The Master Plan highlights the considerations that changes in the built context of Downtown Quincy may present for the Cemetery.



This rendering of the schematic plan for Adams Green (which involves the replacement of Hancock Street with a public landscaped esplanade) demonstrates the importance of Hancock Cemetery for the new civic center.

Guiding Principles

As an historic place, the 372-year-old Hancock Cemetery has many qualities of value to society: fascination for visitors; significance to scholars; importance to descendants of persons buried here. This Plan attempts to consider all of the features that contribute to these values, and sets forth a vision for the Cemetery's future.

The following Guiding Principles express this multi-faceted vision in the form of a series of "lenses," through which to view and understand Hancock Cemetery, along with guidelines for its realization.



The Guiding Principles are the *rationale* for this plan. All of the recommendations found in this Report conform with these guidelines. However, things change with the passage of time and it is possible—indeed, likely—that some particular recommendations may become outdated. New issues and opportunities will arise.

Compared with any of the specific recommendations, the underlying principles are more likely to retain their relevance. As such, they can serve as *touchstones* by which any future decisions can be judged.

This is not to say that the principles are carved in stone. Down the road, the caretakers of the Cemetery may wish to clarify, modify or add to these principles, but such amendments should be well-considered and formally adopted.

Hancock Cemetery **Guiding Principles**

A significant place in history

- Preserve and reduce risk of damage to historic features in the cemetery, particularly grave markers, memorials, walls and ornamental fences and gateways.
- Seek to uncover additional information about the site, such as unmarked graves, and missing grave markers and fragments.
- Identify and maintain the integrity of the Cemetery boundaries.
- Protect and enhance the feeling of being in an historic place by screening or otherwise ameliorating distracting abutting views.
- Protect the historic views and vistas visible from the Cemetery.

A source of genealogical and cultural information

- Preserve as much remaining information on each object as possible.
- Increase availability of and ease of access to such information.

A place where human remains have been interred

- Abide by all laws regarding graves, grave sites and memorials.
- Obtain archaeological consultation prior to disturbing any subsurface areas.

A trove of vernacular artistic expression

- Preserve the integrity of memorial design, materials and workmanship.

A place of contemplation and reflection

- Preserve and enhance the character of the Cemetery for the public's quiet enjoyment.

An opportunity for learning

- Provide public information and interpretation about the Cemetery and its resources.

A pleasant green respite in the center of the city

- Maintain lawns and shade and flowering trees in good health, while ensuring that risk to memorials is minimized.

A place that many people are likely to care about and be willing to help support

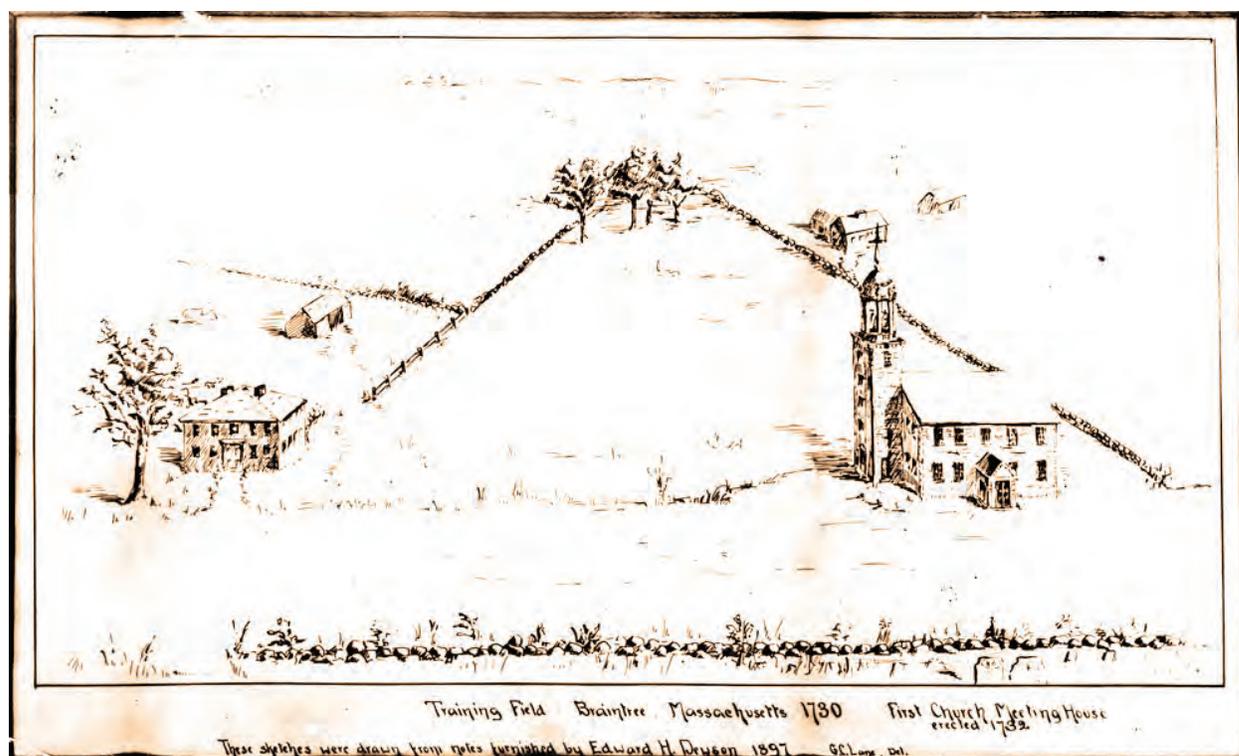
- Encourage public commitment and support for the City's conservation and use of the Cemetery.

Chapter two History

"Hancock Cemetery is a monument to Quincy's past. The original facilities of the town of 1640 . . . consisted of the meeting house, the schoolhouse, the training field, and the burying ground. Of these only Hancock Cemetery remains to represent our earliest heritage."

A colonial burial ground

The first permanent European settlement in the Quincy area was established in 1634. The burial ground was established by 1640 when the town of Braintree (which at that time included both Braintree and Quincy) was incorporated. That same year, William Tyng, a prominent citizen and landowner, acquired property at the town center that included the burial ground and adjacent training field for the militia, both of which remained in private ownership into the 19th century.² The burial ground on Hancock Street was the only burial place in



Training Field in 1730 with meeting house and Hancock Street in the foreground. Burial ground is visible at bottom of image. (Quincy Historical Society)

Braintree until 1716. After Quincy was incorporated as a separate town in 1791, it served as the community's primary burial ground until the 1840s.

For many years, the burial ground was a rough field with only a few scattered headstones. It was bleak and unadorned with no trees and functioned primarily as a pasture for local livestock. The earliest burial markers were rough and impermanent, made of wood or crudely carved fieldstones. The oldest documented grave is that of Henry Adams, who died in 1646, although the present monument is a replacement that dates to the 1820s. The oldest surviving headstone, marked Dec. 12, 1666, is that of the Rev. William Tompson, first minister of the Church of Christ at Mount Wollaston.

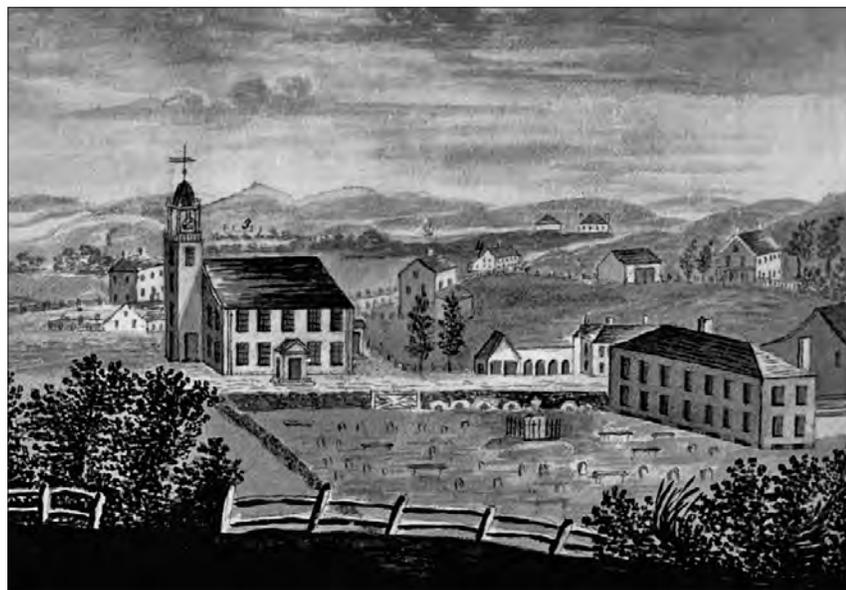
Many of the earliest graves were unmarked and the monuments that now commemorate these early Quincy residents were erected in the 19th century. The first tomb constructed in the old burying ground was that of Leonard Hoar, MD, the third president of Harvard College, who died in 1675. The second tomb was most likely that of Edmund Quincy, in 1699.³ Another early tomb was the ministers' tomb, where most of the town's early ministers were buried – a unique feature of the cemetery. The poem inscribed on the ministers' tomb was written in 1708 by Benjamin Tompson, the son of the Rev. William Tompson.⁴

*"In it lay the bones and dust of four generations that had lived and died in the North Precinct. It stood by the side of the Plymouth Road, an open and uncared for common in which the swine ran at large and cattle grazed . . . The gravestones were rooted up by hogs and trodden down by cows; the children played among them but it had been thus from the beginning, . . ."*⁵

Transformation into a cemetery

Little changed at the burial ground until the early 19th century, when residents expressed outrage at the poor condition of the area, which was still privately owned. A group of citizens that included John Quincy Adams and Josiah Quincy, purchased the property and on April 17, 1809, conveyed to the town "the right of passage, herbage and pasturage in and over the burial ground" to be "set aside as exclusively a place of human burial."⁶ One of the first actions of the town was to fence the burial ground to keep livestock out.

In 1815, after the old town house south of the burial ground burned, the town purchased additional land to

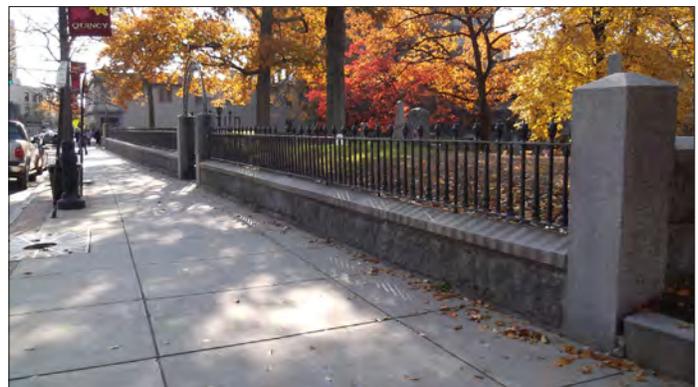


Detail of Eliza Susan Quincy's 1822 painting of Quincy Center. (Quincy Historical Society)

erect the new town house and school. In 1819, the town voted to expand the burying ground on the south, “reserving on the southeast side and southwest end, eighteen feet, for the purpose of erected tombs.”⁷

An early image of the burial ground was a watercolor made by Eliza Susan Quincy in 1822, which showed the area as relatively rural and agricultural, with primarily wood frame buildings. The view is looking east from approximately where the MBTA tracks are now. The former meeting house (where First Parish Church is presently located) is at the left with Hancock Street in front of it, and the former town house and school at the far right. The cemetery, in the foreground, is enclosed with a stone wall on the north and east, and a wooden rail fence on the west (bottom of picture). The southern boundary is not visible. There is a row of tombs to the right of the entrance to the cemetery, as well as headstones and table tombs scattered around the area. Near the center of the cemetery is the Josiah Quincy Jr. monument, surmounted by an urn and enclosed by an iron fence. There are no trees in the cemetery.

In the 1820s the rural character of the area surrounding the cemetery began to change. In 1828 the United First Parish Church designed by Alexander Parris brought a new look to the formerly rural area. The imposing granite church (built of stone donated by John Adams) replaced the earlier wooden meeting house on the same site.



The granite and iron fence erected in 1844 was one of the first efforts to embellish the cemetery. View in the 1920s and in 2011.

In the 1840s, the area underwent further changes. The granite town hall that still lies to the north of the cemetery was erected in 1844 and about half an acre to the south of the cemetery that had been occupied by the old town house was annexed to the cemetery. Around the same time, the present ornamental iron fence along Hancock Street in front of the cemetery was erected with funds raised by women’s groups, adding a more formal and ornamental appearance to the area. In 1845, the selectmen extended the granite block wall on the north side of the cemetery adjacent to the town hall. Many of the tombs in the cemetery were also built in the mid to late 19th century.

In 1845, the Old Colony Railroad (now the MBTA red line) was constructed through Quincy Center just west of the cemetery. The Old Colony provided direct access to Boston, which resulted in the rapid growth of the town’s population, as well as many physical changes in the community. One sign of Quincy’s growing population was the establishment of five new cemeteries: St. Mary’s (1842), Hall Cemetery (1842), Mount Wollaston (1856), Sailor’s Snug Harbor (1857) and the National Sailor’s Home (1861). Mount Wollaston, designed

as a spacious rural cemetery, became Quincy's primary burial place. It was also around this time that the old burying ground was renamed Hancock Cemetery, in honor of Reverend John Hancock.

By the late 19th century there was a strong antiquarian interest in Hancock Cemetery and civic-minded individuals, such as members of the Adams family, created headstones for early graves where none existed. Some inscriptions were recarved, and by 1904 local historian Hamilton Flood had "located every grave and tomb" and recorded all the names and dates in the cemetery.

Twentieth century: documentation and preservation

Hancock Cemetery underwent few changes in the twentieth century. The last burial occurred in 1912, and after that it was increasingly valued for its historic character, rather than as an active cemetery. The 1920s brought renewed interest in local history, including the 1925 tercentennial celebration of the first European visitor to the Quincy area. After 1950, urban renewal brought changes to Quincy Center, including the immediate surroundings of the cemetery – new city hall, wider roads, diminished historic context, deterioration of the burial ground through neglect and vandalism.



Early 20th century view with Hancock Street in the foreground. Most of the trees appear to be fairly young. (Quincy Historical Society)



By 1981 the tree cover was much sparser and included more evergreens. (Quincy Historical Society)

The nation's bicentennial brought new interest in preservation and various proposals for Hancock Cemetery in the 1970s. In the 1980s, the Adams monuments were restored by the Adams descendants. The Quincy Center Local Historic District (which includes Hancock Cemetery) was established in 1975. Hancock Cemetery was individually listed on National Register in 1982.

The latter part of the twentieth century brought renewed interest in Hancock Cemetery,



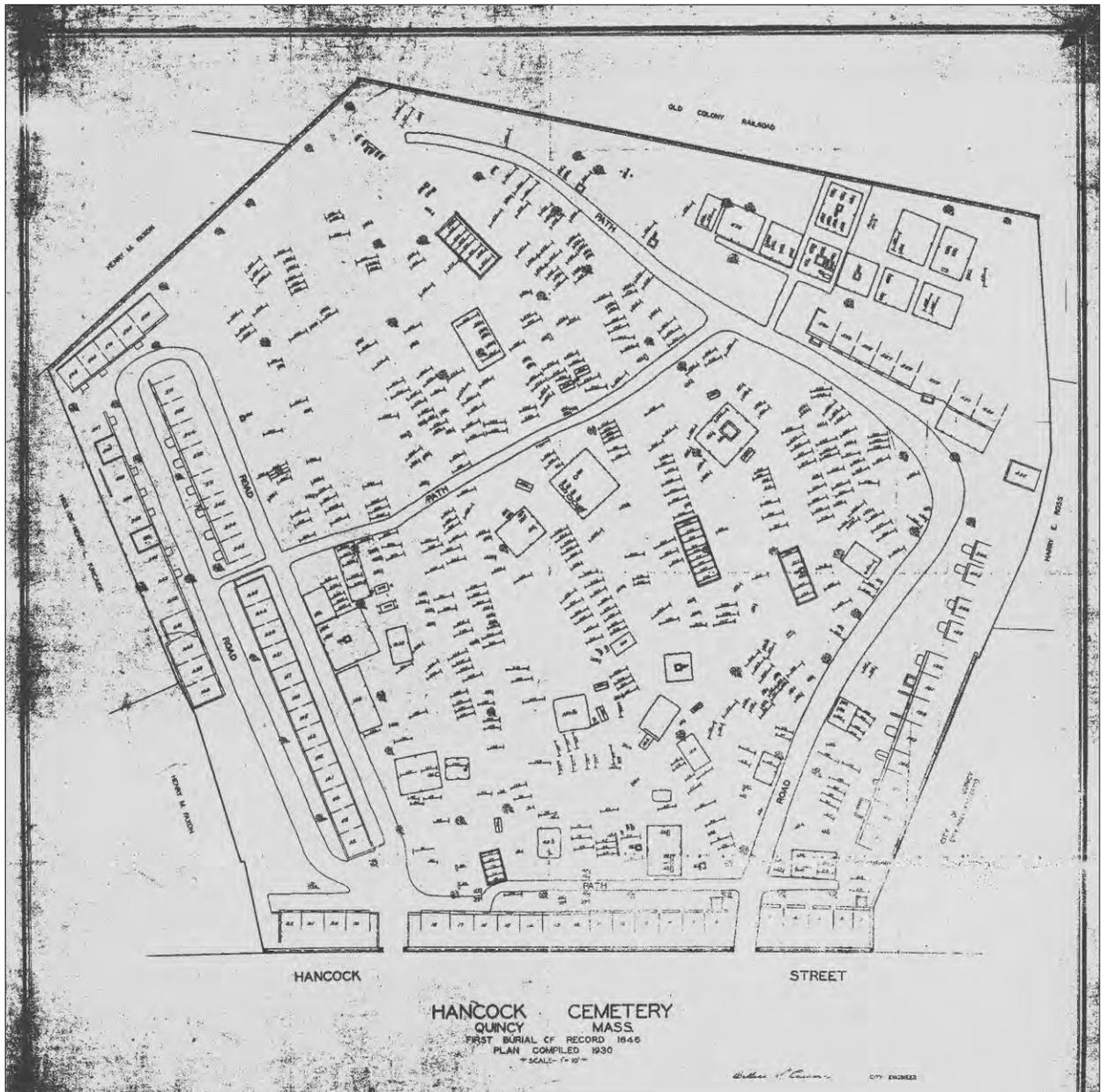
Aerial view, c. 1920. (Quincy Historical Society)



Aerial view, 1973. (Quincy Historical Society)

both on the part of scholars and researchers, as well as the general public, who began to visit in large numbers, resulting in the need for better paths and increased signage, as well as additional concerns about the safety of visitors and of the burial markers.

There have been numerous efforts over the years to conduct inventories and to document the resources of the cemetery, most recently those undertaken as part of this master plan. There have also been many attempts at conservation work, some more successful than others. Unlike many cemeteries, which encased older stones in granite surrounds, Quincy has taken a fairly conservative approach of selective repairs, which has served the community well.



1930 plan of Hancock Cemetery, showing grave markers, tombs and paths. (Quincy Historical Society) Please refer to the foldout in Appendix B for a comparison of the 1930 plan with the 2011 survey that was undertaken for this Plan.



Mound tombs in the western part of the cemetery. (2011 photo)

“What distinguishes Hancock Cemetery from other New England cemeteries is its age, its association with nationally significant figures in the creation of the country and its outstanding collection of funerary art.”⁵

Embracing history

Hancock Cemetery is one of the oldest and most heavily visited burial grounds in Massachusetts. The physical changes documented on the preceding pages highlight the nearly 400-year history of the cemetery – from a colonial burying ground where livestock grazed to a 21st century cemetery that must accommodate thousands of visitors a year, and where sophisticated preservation decisions must be made. The headstones, monuments, tombs, trees, paths and other features all work together to contribute to the overall significance of the cemetery as a cultural landscape.

Significant people and events in history

Hancock Cemetery has an important place in local, state and national history. First and foremost, Hancock Cemetery is one of the oldest surviving features of early Quincy, one of the most historic communities in the Commonwealth. The cemetery has been a constant feature around which the community has grown – an artifact of its early history that has changed little over time. The tombs, monuments, headstones, walls and paths established in the early years of the cemetery look much as they did nearly 400 years ago. They document people who were buried here between ca. 1640 and 1912, a span of nearly 300 years, and who are memorialized in approximately 608 headstones and 100 tombs.⁸ The cemetery has strong associations with founding members of the community and the country.



Tomb detail. (2011 photo)

While all cemeteries reflect the history of their communities, Hancock Cemetery has national significance for its association with founding figures in the establishment of the country. This historic burial ground, contains the graves of early settlers, many of whom were instrumental in the development of the community and the nation. The cemetery's graves, including generations of the Adams and Quincy families and Rev. John Hancock, father of the great patriot leader, provide a perspective on American history. Henry Adams, the progenitor of the Adams family, was buried here. Leonard Hoar, M. D. the third president of Harvard is also interred here.

Gravestone art and epitaphs

Hancock Cemetery has a rich collection of gravestones, monuments and tombs that reflect evolving funerary styles from the 17th century to the early 19th century. The earliest headstones, of which there are only a few, are of fieldstone with roughly carved inscriptions. There are a large number of slate headstones, and some footstones, which generally date from the 18th and early 19th century. These are primarily gray slate obtained from local quarries. The earliest examples have deaths heads and soul effigies, which represent the transience of life and the finality of death. By the 18th century winged skulls and portrait stones, which emphasized the memory of a loved one, had become more popular. The funerary art of the early 19th century, which was found on slate and later marble headstones, was strongly represented by Neo-classical imagery such as willows and urns. By mid-19th century, carvings had become less elaborate and personal, with many machine-made rather than hand carved. After the Civil War, granite became the preferred material for burial monuments.

The greater Boston region, which includes Quincy, is well known for its skilled stone carvers. There has been much scholarly interest in them and there have been many attributions over time, not all of which have agreed with each other. A recent scholar to study local burial grounds in eastern Massachusetts is James Blachowicz, whose *From Slate to Marble, Gravestone Carving Traditions in Eastern Massachusetts* identifies 59 headstones from Hancock Cemetery for which carver attributions are fairly certain. These include: Bartlett Adams (13 stones); William Burbank (6 stones); Alpheus Cary Jr. (6 stones); Eliphalet Dame (6 stones); Cyrus Pratt (7 stones); Jonathan Rawson Workshop (5 stones) and Lemuel Savery (6 stones).⁹

Gravestones also reveal personal history. Infant mortality was common, but many who survived the early years, lived to a ripe old age. Samuel Bass, who was 94 when he died in 1694, left 162 descendants.¹⁰ Henry Neal (d. 1688) was the father of 21 children. Service as a veteran was well documented. Veterans from many wars, including 50 Revolutionary War veterans, are commemorated on a plaque erected by the Daughters of the Revolution in 1923. (Note: other sources say 60 veterans from Revolutionary War.) Like most cemeteries, Hancock Cemetery is a repository of many stories that reflect the broad patterns of history.



1688 Henry Neal "The Father of 21 Children"

Samples of the engraver's art



1789 Mary Baxter



1789 Mary Baxter (detail)



1835 Theodora Clark



1835 Theodora Clark (detail)



1825 David Cook



1825 David Cook (detail)



1694 Sarah Cleverly



1694 Sarah Cleverly (detail)

Samples of the engraver's art



1793 Captain Moses Brackett



1793 Captain Moses Brackett (detail)



1754 Joanna Burrell



1754 Joanna Burrell (detail)



1705 Deacon Joseph Penniman



1705 Deacon Joseph Penniman (detail)



1798 Cotton Pratt



1798 Cotton Pratt (detail)

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- Fannin, Minxie J. and Monique B. Lehner. "Historical & Architectural Overview of Quincy, Massachusetts." Massachusetts Historical Commission, 1986. (MHC town narrative)
- Fannin Lehner Preservation Consultants. "Hancock Cemetery, Quincy, Massachusetts." Boston: Massachusetts Historical Commission, 1986. (MHC Inventory form)
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- Quincy Historical Society. "Quincy's Historic Hancock Cemetery." (2002 interpretive brochure).
- Sprague, Waldo C. "Cemetery Inscriptions of Old Braintree to 1850 or later." Unpublished manuscript in files of Quincy Historical Society, ca. 1940. (Includes inscriptions but not complete epitaphs. Numbering system corresponds with 1930 map.)
- Wilson, Daniel Munro. *Where American Independence Began*. Boston and New York: Houghton, Mifflin & Company, The Riverside Press, 1904. (Has a few early photos of Hancock Cemetery, p. 298.)

Maps

- 1897 Geo W. Stadly & Co. "Atlas of the City of Quincy, Norfolk Co, Mass."
- 1907 Ernest W. Branch. "Atlas of the City of Quincy, Norfolk County, Massachusetts."
- 1923 Ernest W. Branch. "Atlas of the City of Quincy, Norfolk County, Massachusetts."
- 1930 Engineers Office. "Hancock Cemetery, Quincy, Mass. 1930, revised 1974, 1"=10'-0".

Endnotes

- 1 H. Hobart Holly, "Hancock Cemetery: The Old Burying Place" in *Quincy History*, 1981.
- 2 Holly, "Hancock Cemetery: The Old Burying Place."
- 3 William S. Pattee, M.D, *A History of Old Braintree and Quincy with Sketch of Randolph and Holbrook*. Quincy, MA: Green & Prescott, 1878, page 113.
- 4 Holly, "Hancock Cemetery: The Old Burying Place."
- 5 Charles Francis Adams, *Three Episodes of Massachusetts History*, p 905-906.
- 6 Pattee, page 99.
- 7 Pattee, page 103.
- 8 Massachusetts Historical Commission inventory form, 1986.
- 9 James Blachowicz, *From State to Marble, Gravestone Carving Traditions in Eastern Massachusetts, 1770-1870*. Evanston, IL: Graver Press, 2006, Appendix on CD accompanying book.
- 10 Holly "Hancock Cemetery: The Old Burying Place."

Chapter three

Grave markers

Overview

From April-September, 2011, Sutherland Conservation & Consulting carried out a systematic assessment and evaluation of every visible grave marker and marker fragment within Hancock Cemetery. Based on in-the-field observations and the analysis of assessment survey results, the general condition of the grave markers and monuments in the Hancock Cemetery can be characterized as fair-to-good, with fewer than one quarter of the markers and monuments requiring some level of conservation treatment. The overall favorable condition of Hancock Cemetery, especially when compared to many old municipal burying grounds, attests to the City's long term proactive and methodical stewardship of this important National Register-listed historic site.



View of Hancock Cemetery in April 2011 after all memorials were given a unique survey number.

The following analysis is based upon a three-step process of field data collection (inventory, conditions assessment and prioritized treatment recommendations), followed by entry of the information into a database.

Of the 940 extant grave markers and monuments, 246 were leaning or tilting sufficiently to warrant resetting, but had no deterioration conditions that require conservation treatments. At the time of the conditions survey, a total of 226 markers and monuments required some level of conservation treatment or preservation maintenance. [Two of these priority 1 markers were repaired as part of the September 22nd workshop, so the revised total is: 224 markers and monuments requiring some level of conservation treatment.] Of these 224 markers and monuments requiring treatment, 51 are priority 1 (high), 48 are priority 2 (moderate) and 127 are priority 3 (low).

There is a great wealth of identifiable burials preserved within the Hancock Cemetery. Forty-four of the 940 memorials had inscriptions that were 50-80% readable, but fully 754 had inscriptions that were 80-100% readable.

[The complete photographic inventory of Hancock Cemetery grave markers, monuments and tombs is provided on disc, as an appendix to this Report. Each of the file names for the digital jpeg images in the photographic inventory has three parts: **map ID#_person's name_year**. (Example: 0190_Belcher, Sara_1761)]

Methodology

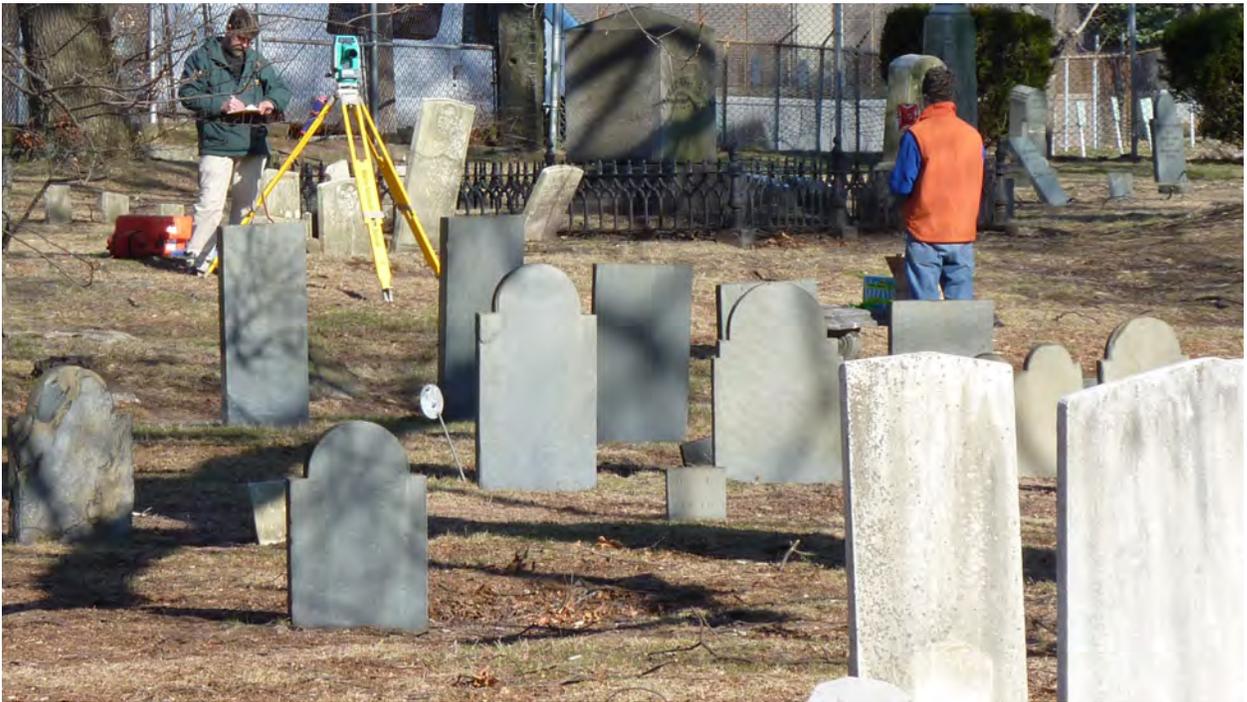
Inventory

The inventory of the grave markers and monuments involved three components: (i) assigning a unique identifying survey number for each grave marker, monument and tomb; (ii) locating each object graphically on a survey map; and (iii) recording basic identifying information for each marker, monument or tomb including a photograph, identifying inscription, form and material, as well as memorial size and orientation.

Each grave marker, monument, tomb, and all visible marker fragments (collectively referred to as memorials), was given a survey number utilizing 3/4-inch-wide wooden sticks that were pre-numbered to ensure that no duplicate numbers were utilized in the field. A digital photograph was taken of each numbered memorial immediately after it was numbered to ensure that a complete photographic inventory was created. Memorial

Grave marker types

Boulder		4
Brownstone Slab	Markers	5
Table-top tombs		3
Flush Marker		7
Granite Slab Footstone		4
Granite Slab Headstone		8
Granite Two-Part		10
Marble Slab Footstone		15
Marble Slab Headstone		112
Multi-part Marker or Monument		31
Slate Slab Footstone		275
Slate Slab Headstone		467
Total Monuments		933



Northern Geomatics and Sutherland Conservation & Consulting surveying Hancock Cemetery in April 2011.

numbering and photography by SCC was undertaken at the same time as the mapping survey by Northern Geomatics to ensure complete coordination between numbering and surveying. The locations of headstones, paths, trees, fences, elevation and other features were mapped by Northern Geomatics using a Sokkia Total Station. Massachusetts State Plane coordinates were calculated for each feature by tying the survey into local known control points at the Granite Trust Building and the United First Parish Church. All features were imported into ESRI ArcMap GIS software for analysis and map production. The pattern used for numbering was responsive to the three locations of the Total Station used for the survey and in response to the impact of sunlight levels and angles on the Total Station.

An Excel spreadsheet was created to associate survey numbers with basic memorial identifying information entered initially utilizing the survey photographs. Fields were added to capture additional data collected in the field including the orientation angle and size of the memorial for inclusion on the survey map. Basic memorial identifying information was checked in the field while memorial angle and size were being recorded. Later, additional fields were added to the spreadsheet including cross-referencing headstone and footstone entries and tracking assessment completion status. Inventory photographs were re-taken as necessary.

The on-site survey numbers were re-used as the map ID numbers, and used on the assessment reports and in the master plan. A grid will be overlaid onto the survey map once grid spacing has been selected for reference to assist in locating memorials on the map.

Conditions assessment and treatment recommendations

SCC customized three conditions assessment forms for use at the Hancock Cemetery, adapting similar forms created by Building & Monument Conservation for slate and marble slab markers, granite and other markers and multi-part markers and monuments for other old burying grounds in Massachusetts. After review and

approval by the Master Conservation Plan Advisory Committee, copies of the appropriate forms were printed and used to conduct the assessments.

Conditions recorded in the field include: memorial form, setting, prior repairs and existing conditions. Based on the conditions thus recorded, conservation and/or maintenance priorities were assigned along with specific treatment steps for future reference and treatment budget development. All information captured on the assessment forms was entered into a proprietary Access assessment database program with custom



Slate slab marker for Map ID number 43. April 2011.



Detail of incised and relief carving for Map ID number 43. April 2011.

reporting capabilities. Three customized reports from the Assessment Database were produced for this project. They include: Conditions Assessment Statistics, Memorial Recommended Treatments Summary, and Memorial Details. These assessment database reports were used for general analysis of the cemetery, the development of treatment budgets and recordation of prioritized treatment recommendations and steps.

Inventory

Inventory Findings

The inventory recorded 940 extant grave markers, visible marker fragments, multi-part and table top monuments, and non-burial memorials, (referred to collectively as memorials) and 84 tomb structures (tombs are discussed in Chapter 4). Currently the Statistics report only lists 933 monuments because the 7 table top monuments have not been entered into the database. The predominant memorial form



Marble slab markers Map IDs 37 and 38 set in slot bases. Note prior repair to slot base 37 with concrete. April 2011.

is slab markers which account for 94% of the memorials (886 out of 940.)

Slab markers are a single rectangular slab of carved stone with a combination of incised and relief carving with the bottom of the stone set directly into the ground. [opposite left & far left]

A small number of slab markers are set into slot bases. [opposite, lower left]



Granite tabletop monument . Map ID 870 April 2011



Large granite multi-part marker Map ID 982. April 2011.

Multi-part markers consisting of stones stacked vertically one on top of the other account for 41 of the memorials. [above right] There are 7 table top monuments, which are distinguished from multi-part markers by a distinctive horizontal rectangular slab of stone, generally with an inscription engraved on it, that looks like a table top set on a base. Typically table top tombs are set on 4-6 legs or a box base constructed with stone and mortar, often parged (see Map ID 427). However, among the impressive collection of monolithic granite monuments in Hancock Cemetery are three table tops set on monolithic granite bases (Map IDs 373, 687, 870). [above left] There are also 4 boulders, 2 flush markers, one of which may actually be a base for a multi-part marker now missing.

The slab markers are predominantly fashioned from slate (742 headstones, footstones and fragments.) There are 127 marble headstones, footstones and fragments. Among all 887 slab markers, 591 are identifiable as headstones and 296 as footstones. Of the 296 footstones, approximately 31 have not been associated with a verifiable corresponding headstone. The corresponding headstones for these footstones may be missing, illegible or the headstone and/or footstone may have been moved from its original location, thus becoming visually disassociated. Northern Geomatics superimposed the 2011 survey map onto the 1930 survey, creating a valuable analytical tool that illustrates the accuracy of the 1930 survey map and provides a visual reference to determine changes among the cemetery memorials in terms of losses and shifting locations over the 80 years between the dates of the two maps. [See foldout in Appendix B.]

Exact transcription recording of memorial inscriptions was not part of the scope of this project. However, every memorial was viewed in the field at least three times and either one or two photographs taken of it

during the course of the inventory and conditions assessment steps. With each pass through the cemetery additional identifying information was gleaned from previously illegible stones due to different lighting and humidity conditions. Inscriptions recorded during this project were general rather than exact, for the purpose of generally identifying the stones. Exact documentary transcriptions capture the actual spelling, punctuation and sentence structure of the inscription, which has historical value relating to the time in history when the stone was carved. Of the 940 extant memorials, eight out of ten had inscriptions that were 80-100% readable. This means there is a great wealth of genealogical information relatively easily accessible within the Hancock Cemetery.

Recommendations for future inventory activities

The following items lay outside of the scope of the current planning effort, but will be important as the conservation of Hancock Cemetery goes forward.

- Undertake a comprehensive documentary transcription project. Utilize the inventory photographs to transcribe the majority of the inscriptions, followed by field work to transcribe the remaining inscriptions and where present associated verses not fully visible in the inventory photographs. See guidelines published by the Association for Gravestone Studies for recommended transcription methods.
- Undertake a burial identification project to integrate previous inventories with the current inventory. For memorials not associated with a known burial in the current inventory, compare these memorials with earlier inventories and photographs of known burials. If inventory documents keyed to the plot numbers on the 1930 map can be located, the overlaid 2011 and 1930 maps could be a very effective means to identifying inscriptions that are now partially or completely illegible.
- Locate and inventory fragments stored off-site in order to re-associate them with on-site burials.
- Create a Standard Operating Procedure for the Treatment of Fragments. This SOP should identify clearly the entities responsible for maintaining an inventory of the fragments, on-site and/or off-site storage protocols, and a process for re-association of fragments with burials within an appropriate amount of time and following appropriate conservation treatments as necessary.

Conditions assessment

A conditions assessment was completed for every memorial in order to identify and document conditions that currently endanger, or have the potential to endanger, the long term existence of the memorial, the burial information on the memorial, the carved ornament on the memorial, or may currently or potentially pose a safety risk. The conditions assessment focuses on three distinct condition "variables:" *setting* (i.e., attachment of the object to the ground); *prior repairs*; and *general conditions*. With the exception of the setting, conditions exhibited by memorials generally appear to result from natural deterioration and/or prior human intervention.

The rates and types of deterioration caused by natural weathering are determined in large part by the material characteristics of the stone, how it was utilized in the memorial, as well as macro and micro climate factors. See the Illustrated Glossary (Appendix D) for detailed explanation of typical memorial deterioration by stone

Observed grave marker conditions

Chipped	4	Losses and/or holes	312
Cracked and spalled at pin locations	3	Lower portion missing - cannot be reset as-is	5
Damage from concrete collar	2	Other condition note	2
Damage from mower scrapes	621	Slot base conditions: Intact,	
Delamination/cleavage plane separation	43	Mower Scrapes,Spalled	1
Fragment remains - some identifying marks	5	Slot base conditions: Intact,Mower scrapes	1
Fragmented/broken	56	Slot base conditions: Intact	10
Fragmented/broken (pieces)	49	Slot base conditions: Cracked,Broken	1
Fragments missing/pieces	18	Slot base conditions: Broken	1
Fragments remaining with no identifying marks	12	Slot base conditions: Cracked	2
		Slot base conditions: Spalled	1
Inscription 80-100% readable	749	Spalled, losses and/or holes	9
Inscription 50-80% readable	44	Structural cracks but not broken	56
Inscription less than 50% readable	37	Surface cracks	166
Inscription visible but too faint to read	31	Thin delamination/exfoliation/blistering	198
Inscription missing/completely illegible	21	Incipient delamination/edge cracks	107

type and treatment options. The impact of human intervention on individual memorials can vary widely based on the extent or type of intervention.

It is good to keep in mind that the human interventions noted at Hancock Cemetery are generally well intended and carried out with what appeared to be the most appropriate materials and methods available at the time.

Setting conditions

Setting conditions document existing or potential risk factors related to the stability of the memorial in or on the ground. Setting conditions are the most dynamic set of conditions recorded as part of the assessment because of annually-occurring frost action that greatly impacts the stability of memorials, as well as vegetation in close proximity to memorials that grows, dies and suffers storm damage. In addition to the 23 memorials that are already lying on the ground or exhibit structural failure, *tilting* memorials are often at significant risk for damage and loss. They are especially



Slate slab Map ID 63, April 2011. The stone is tilting but not broken.



The same marker had broken into three pieces by the time of the September, 2011 training workshop.

vulnerable to impact damage from mowers. A good case in point is map ID 63: slate slab headstone Wilcher, Jonathan, 1824, one of the stones repaired during the September 22nd workshop. [See pictures on the previous page.] When the inventory photographs were taken in April 2011, this stone was tilting (but intact) with surface cracks running horizontally across the face of it. In August 2011 when the condition assessment was completed, the stone was still tilting but now it was broken into three pieces, which, interestingly, did not follow the surface cracks that were still visible on the front of the stone.

Slab markers that are not set deeply enough in the ground (recorded as "set too high") are at risk for being unstable, loose or susceptible to tilting and breaking at the ground. Many of the memorials that are recorded as set too high are also tilting. The general risk to slab markers that are set too *low* is the potential loss of inscriptions that are below ground level. Slab markers may be set too low because the bottom part of the stone had previously broken off at the ground, leaving insufficient stone to be reset in the ground. Setting conditions that put multi-part markers at risk include exposed and/or settled foundations which result in leaning and displacement of the stacked stones so that they are offset from center or relative to their original placement. Of the 41 multi-part monuments surveyed, approximately half of them have setting conditions which should be either addressed or monitored to ensure their longer term stability and preservation.

Prior repairs

The most prevalent prior repairs are concrete collars, which exist where concrete was poured around the base of a memorial stone in an effort to stabilize the stone in the ground or keep it from tilting in the future. Compared to typical concrete collars installed in other cemeteries, which have much greater depth and contact with the memorial stones, most of the concrete collars remaining in this cemetery are broken up and not in contact with the stones. Given this situation, most of the recommended concrete collar removals are associated with "reset-only" stones because the process of resetting the stone will remove the already broken and disengaged remnants of the collars. The few exceptions to this occur where concrete collars are still solidly in place at the base of the stone. In some instances the concrete collar is intact but it is not adhered to the stone. In these cases water can still effectively drain through this space. In other instances the intact or partially intact collar can create a reservoir for water to collect and freeze in the winter resulting in cumulative damage to the memorial stone.



Granite slab Map ID 16 with inset marble plaque. April 2011.



Slate slab Map ID 419 with granite surround; this prior repair needs maintenance to preserve the original headstone. April 2011.

Memorials with inserts fall into two subtly distinct categories: (a) granite-slab memorials with an original inset stone plaque [above left] and slate or marble memorials have been re-set into granite surrounds [above right]—a condition that qualifies as a prior repair. There are some prior repairs including stone surrounds and adhesive repairs

that are still functioning as intended and are not causing further deterioration, irrespective of whether good craftsmanship or appropriate materials were employed. Where this occurs, repairs are noted as intact and not called out for removal in the treatment recommendations.

Some prior repairs have failed and some appear to be reaching the end of their service life. These prior treatments are noted for removal under treatment recommendations.

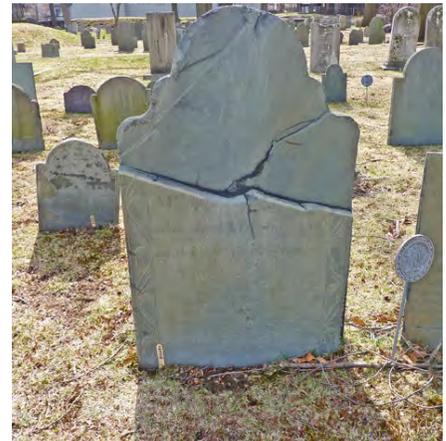
Some of the granite surrounds and adhesive repairs require maintenance to extend the life of the treatment. In these cases it is more appropriate for the long term preservation of the memorial to do maintenance on the prior repair rather than reversing the prior repair and undertaking a new conservation treatment.

General conditions

The number of readable inscriptions is largely proportionate to the number of memorials that are made of slate. On the majority of slates that historically have been used in Massachusetts for grave markers, unless the carved face of a slate memorial has been lost through delamination, [right] the carving generally remains intact. With only a few exceptions, the slates used in this cemetery are not exhibiting loss of inscriptions due to surface delamination or cleavage plane failure. By contrast, marble and brownstone are typically susceptible to granular disintegration resulting in loss of inscription legibility. Granite inscriptions are generally only lost through impact damage.

There are a number of granite slab memorials in Hancock Cemetery that appear to have originally had inset stone plaques that are now missing. [below left] In these cases the granite memorials have no inscriptions, and as such they were recorded as granite memorials with missing inscriptions.

The most widespread deterioration condition appears to have been caused by mower damage, recorded on no fewer than 621 memorials. The mower damage ranges from scratches and small chips and loss on the edges of the stones, to losses of inscriptions and broken stones. [far right] Reduction of damage from lawn care as well as falling trees and limbs requires preemptive action



Slate slab Map ID 236 that has lost its inscription through delamination. April 2011.



Granite slab Map ID 53 that has a missing inscription due to the loss of its inset plaque. April 2011.



Slate slab (footstone) Map ID 60. Note mower scrapes and partial loss of inscription due to impact damage in addition to thin delamination. April 2011.

for the latter and constant vigilance for the former. Educating new operators about the significance of the markers is very important, as is utilizing appropriately sized machinery that has protective bumpers on them.

The next most widespread group of conditions is delamination and cracking. Delamination and cracking are subdivided into groups (delamination, thin delamination, incipient delamination, surface cracks and structural cracks) on the conditions assessment form based on the extent, type and location of the cracking. The types of delamination and cracks are distinguished from each other by the short-term and long-term risk they pose to the stone. Cracked or broken stones are extremely vulnerable to additional damage from equipment used to tend the grass as well as from foot traffic. Stones with simple breaks that could be easily repaired become more difficult and more expensive to repair if the pieces of a marker that are lying on the ground continue to break into smaller and smaller fragments.



Slate slab Map ID 743. Wilson family headstone, with (apparently) a repairable break. April 2011.

Conservation and maintenance treatments and priorities

After recording existing conditions in the field on the assessment forms, the next steps involved selection of conservation and/or maintenance treatments responsive to the recorded conditions and an assignment of a treatment (or resetting- only) priority. The distinction between conservation and maintenance treatments is generally the difference between putting a memorial back together that would otherwise be lost versus proactively treating conditions that would otherwise eventually lead to the loss of the stone.

Resetting only – no other treatment

Stones that require resetting but no additional conservation treatments are tracked separately using a Priority 1 and Priority 2 resetting index. These stones are tracked separately because resetting grave stones requires different skills and equipment than conservation treatments. Organizing the data this way allows for the possibility that the City might undertake a resetting project using its own workforce, volunteers or a specialty contractor.

Resetting Priority 1 indicates that the stone is leaning more than 15 degrees in any direction or is loose. For multi-part markers Priority 1 can indicate that the individual components are loose or have shifted or that there are no pins between the units. Resetting Priority 2 is used to designate stones that are set too high or too low or are leaning somewhat. There are 105 memorials that have been identified as Resetting Priority 1 and 141 memorials identified as Resetting Priority 2.

Conservation and maintenance treatments and priorities

As highlighted at the beginning of the Chapter, 246 memorials have no deterioration conditions that require conservation treatments but are leaning or tilting sufficiently to warrant resetting. At the time of the survey, 226 markers and monuments required some level of conservation treatment or preservation maintenance, two of



Brownstone and granite table top monument. Map ID 506. "The Ministers' Tomb." The brownstone top is at risk for delamination.

which were repaired as part of the September 22nd workshop, for a revised total of 224 markers and monuments (including table top tombs) requiring some level of conservation or maintenance treatment. Of the markers and monuments that require treatment, 51 are Priority 1 (high), 48 are Priority 2 (moderate) and 127 are Priority 3 (preventative). There are 468 memorials that do not require any level of treatment or resetting. These no-treatment memorials are put into the database as Priority 4. The seven table top monuments are included in the count above. Of the seven, 4 are Priority 4 and two are Priority 3. One table top monument, [left] is a Priority 1—it has a brownstone top that has some remaining inscription that is at risk of thin delamination.

Categories of grave marker treatments

Add piece to bottom to facilitate resetting	18	Relocate away from tree	9
Clean biological growth to facilitate treatment	84	Remove adhesive	19
Create new foundation prior to resetting	1	Remove + reset to facilitate other	
Drill out and replace corroded or inappropriate pins	5	treatments	107
		Remove caps	1
Grout and cap at thin delamination, exfoliation or blistering	71	Remove caulk	3
Fills/patches	18	Remove concrete collar	20
Grout structural cracks	39	Remove concrete surround	1
Grout surface cracks	29	Remove face pins	1
Mortar caps	30	Remove grout	4
		Repair existing foundation prior to resetting	8
No treatment - reset only priority	246	Reset in ground or in slot base after other	
No treatment until missing fragments located	17	treatments	104
Readhere at delamination or cleavage plane failure	32	Slot base - reattach fragments	1
Reattach fragments (and fill areas of loss with patching materials)	37	Slot base - regROUT/relead slot	4
		Slot base - replace with new	1
		Other treatments	15

Note: Several treatment modalities may be used together on the same object. Refer to stone-by-stone treatment recommendations for details.

Criteria for prioritizing memorial treatments

Priority 1 Memorials

- All broken stones that contain some information and have more than one piece.
- All broken stones containing a significant amount of information but are lacking a lower section to be reset.
- All treatable stones with a significant amount of information that would be lost if the stone is not treated.
- All markers with a significant amount of information that are jeopardized by the presence of a concrete setting collar.
- All markers, monuments, slabs etc that represent a potential safety hazard regardless of the amount of information surviving.
- All markers with ferrous metal setting or repair pins.
- All stones with prior repairs that are failing in which the failure is endangering the original fabric.
- All stones with prior repairs in which the repair material is contributing to the deterioration of the substrate.

Priority 2 Memorials

- All markers with cement collars that have a significant amount of information and some other form of distress that requires treatment.
- All markers with conditions that if left untreated for a number of years could result in a hazardous condition.
- All markers with significant information that are developing conditions that in the relatively near future would jeopardize the original fabric.
- Slot markers with failing or detrimental cement washes at the interface of the slab and the slot base.
- Markers with prior repairs which are intact and not actively contributing to the deterioration of the substrate.

Priority 3 Memorials

- Markers with thin cracks, surface cracks and or seams and fissures that it would be beneficial but not crucial to keep water out of.
- All markers with cement collars that have a significant amount of information but no other visible distress.
- Markers that might require purely aesthetic compensation unrelated to keeping water out of voids or cracks.
- Two or three part markers that require new mortar setting beds or setting putty.
- Markers with prior repairs which are serviceable but aesthetically unappealing.

Priority 4 – No Treatment

- Markers with superficial conditions such as mower scrapes or cracks, seams and fissures that are too tight to allow for the introduction of a fill material or grout.
- Markers with minor edge loss mostly resulting from mechanical damage – lawnmowers.
- Markers with no identifying marks.
- Markers which are extremely sugared and broken.
- Markers whose only issue is biological growths or staining.
- Markers whose original polish has faded or whose only issue is disappearing inscriptions.

Chapter four

Tombs + walls

Tomb overview

In late August of this year, Ivan Myjer of Building and Monument Conservation assessed the condition of the mound tombs in Quincy's Hancock Cemetery. The purpose of the assessment was to determine the condition of each tomb in the cemetery and make recommendations for its maintenance and/or repair. As part of the assessment the tombs were divided into two basic types with the principal difference between the two being the manner in which the roofs of the tombs were constructed. The tombs were inspected from the exterior only as access to the interiors was not possible at the time of the assessment.

In the course of the assessment each tomb was inspected and photographed from multiple vantage points. Notes were taken about each tomb as well as each group or line of tombs. The tombs are described in detail in Appendix E as individual units within a group because, except for the few freestanding tombs in the cemetery, all of the tombs are structurally, and sometimes stylistically, connected to the adjacent tomb in their group.



Linear arrangements of partially above-ground tombs are a significant character-defining feature of Hancock Cemetery.

The tombs in Hancock Cemetery are in good condition by and large. The principal issues for most of the tombs are related to deferred and very occasionally improper maintenance rather than to more severe issues such as outright masonry failure. The conditions that require treatment repeat themselves from tomb to tomb. Some tombs require more treatment than others but almost all of the tombs require one form of maintenance or another.

This chapter is divided into two sections. The first section contains an overview of early 19th century mound tomb construction as well as a discussion of the types of problems that these types of tombs experience over time. The typical features of mound tomb construction as well as the typical problems are illustrated with photographs. The first section also contains a set of general recommendations and a discussion of the potential difficulties that can be encountered working on a structure that contains human remains.

The second section of the chapter contains an assessment of each tomb and/or group of connected tombs. The assessments contain a description of the basic tomb structure as well as any unique features that the tomb or tombs may have. The assessments also contain an inventory of the conditions and recommendations for the maintenance or repair of the tomb or group of tombs.

The conditions are described using the viewer's left and right which is the reverse of how grave markers are typically described. The treatment recommendations are numbered in order of priority.

Mound tomb construction

The burial crypts in the Hancock Cemetery are mound tombs, a type of masonry crypt construction that gained popularity in New England in the first half of the 19th Century. Mound tombs are crypts that are constructed with the foundation and most of the loadbearing sidewalls below ground and the roof or vault above ground. After completion of a tomb, or row of tombs, three sides and the roof were covered with sod so that the tomb resembles a small hill or earthen mound. The purpose of the sod is to protect and stabilize the masonry.

The masonry construction generally takes one of two forms that are distinguished by the type of roof. The roof can either be a barrel vault, laid up from stone or brick set in mortar, or it can be a flat roof consisting of large stone slabs laid from side to side, bridging the two longer walls. The below ground construction of both types of tombs tends to be very similar but the location and form of the entry as well as the style of the visible portions of the front vary considerably.

The foundation and sidewalls are most frequently stone laid in mortar and the floor is generally tamped earth but is sometimes bricks set in sand. Some tombs have stone slab shelves cantilevered from the walls to support the caskets while others have brick cribbing on the floor, or, nothing at all. The above ground portion of the rear wall, which was always intended to be covered with soil, is generally the same type of construction as the foundation and sidewalls but sometimes the stonework is laid up in a more casual fashion - especially if the rear wall is not taking any part of the structural load from the roof. The above ground section of the front wall, which is usually the only visible portion of the masonry, generally rests on a rubblestone wall constructed below grade, and always consists of stonework dressed to form the entry and the façade of the tomb. The



Side by side barrel vault tombs with the granite blocks that form the vault exposed because of soil erosion. Note "V" shaped retaining wall at front to keep the soil between the vaults from eroding forward. Also note cement wash applied to the interface between the front wall and the vault.



Tomb with flat roof formed by slabs of granite. Note parapet in front to retain soil as well as retaining wall on the right side of the front wall.

style of the facades in the Hancock Cemetery ranges from very plain to extremely ornate. The entrance to the tombs was either through a door in the front wall or through an opening in the ground in front of the tomb. Staircases down to the floor could either be located inside the structure or outside of its walls, however, not all tombs contain a stair.

The Hancock Cemetery contains tombs with flat slab roofs and tombs with barrel vault roof construction. Tombs with flat roofs do not require that a piece of stone be set between adjacent tombs to retain soil while side by side barrel vaults usually have some sort of retaining wall in the front to keep soil from falling out of the depression created by the adjacent vaults. The presence of this front retaining wall between the tombs is one of the ways to tell the two types of structures apart if none of the construction is visible. - Without opening the doors, it not possible to tell which tombs have walls constructed from brick and which have granite walls unless the walls have been exposed by soil erosion.



Side by side barrel vault tombs with a front consisting of a single granite slab. Note retaining wall on top of the front wall slab as well as retaining wall in the valley between the tombs.



Retaining tomb with flat slab roof and two granite slabs with serving as the front wall. Iron door may possibly be original. Note additional course of stone on adjacent tomb that serves as a retaining wall to hold the soil cover.



View of exposed rear wall of a barrel vault tomb. Note that rear wall stones have been worked to form an arch. The erosion of the soil cover over the tomb is resulting in the displacement of the rear wall stones.



Tomb with flat roof formed from granite slabs placed on sidewalls that are also granite slabs instead of granite rubble. Note pediment that serves as retaining wall for soil and the small retaining wall on the left side of the front wall.

The vast majority of barrel vault tombs in New England have vaults constructed from bricks. The vaulted tombs in Quincy's Hancock Cemetery are unique; the vaults are constructed from granite cobblestones. The use of granite in the tomb construction certainly makes sense, given the proximity to Quincy's famous quarries, but the use of cobblestones to form the barrel vaults is somewhat surprising since cobblestones do not have perfectly flat sides. Cobblestones are also significantly larger and heavier than bricks so their use necessitates stronger sidewalls and foundations.

The role of the sod covering in the architecture of the tombs cannot be stressed enough. The sod and soil cover in New England is generally five to six inches deep at its thinnest point on top of the tomb and can be up to several feet thick at the base of the tomb. Some how, possibly because of experience constructing root cellars, the original builders must have discovered that a five or six inch layer of sod is sufficient to protect and maintain the soft and vulnerable lime mortar used to set the bricks and stones.



Tomb with barrel vault and front consisting of a single granite slab. Note slab covering entrance at grade. The placement of the entrance cover directly against the front wall slab helps to stabilize the front wall. Also note cement wash between front wall and vault.



Row of low tombs with single slab fronts. Note the mounds of soil that are forward of the line of the tombs fronts. This may be intentional or the result of erosion due to the lack of retaining walls in the valleys between the tombs.

In addition to protecting the lime mortar from weathering, the soil on three sides of the tomb helps stabilize the masonry. In the case of flat roof tombs it acts as a buttress for the above ground portions of the walls and, in the case of the tombs with vaults, it provides crucial resistance at the spring line of the arch. The maintenance of the soil on top of tombs with vaults is more critical than the placement of soil over the top of tombs with flat roofs because the deterioration of a single mortar joint in a vault can eventually undermine the entire vault.

Almost all of the mound tombs in Hancock Cemetery are part of a line of tombs which is typical for most mound tomb construction in New England. Constructing the tombs in a row gives the middle tombs greater structural stability and at the same time reduces the amount of masonry that is required to construct each tomb. Since mound tombs, as a form of burial in New England only came into prominence at the start of the 19th century, the tombs were frequently constructed along the perimeter of the existing burial grounds. In urban settings, such as Quincy's Hancock Cemetery, the rear of the tombs frequently backed up against the perimeter walls.

Many of the tombs that have entries through the front wall have pintles on the doorjambes to support a heavy door and eyehooks to latch it closed. Only one of these original hinged doors survive in Hancock Cemetery but, in the cemeteries where more original doors survive, they are either slate, cast iron, marble or bluestone. Most tombs in Hancock Cemetery with entries in front of the tomb appear to have their original stone slab covers. These massive slabs serve a dual purpose. They cover the grade-level entrance to the tomb and help prevent the front wall of the tomb from slipping off its foundation – a frequent problem for this type of construction as the original builders did not anchor the above ground portions of the front wall to the below ground sections of wall.

To construct a mound tomb a hole was dug into the ground and then a foundation was laid for the four walls. On top of the foundations, walls were constructed either from brick or rubble stone set in mortar. For tombs with brick or stone barrel vaults the spring line of the vault was started below grade so that the earth could act as a restraint as vaults have a natural tendency to spread. For tombs with flat granite roofs, the walls were extended about two feet above grade and then the long pieces of granite were set across the longer sidewalls in order to bridge the shorter span.



Detail of sifted front wall with failing cement in the joint between the front wall and the flat granite slab roof.



One of three tombs with low walls on top of the tomb constructed from granite slabs – possibly to function as a planting bed.



Lateral iron anchor placed between the front wall units of adjoining tombs to help restrain the walls from moving.



Exposed iron anchor placed between the front wall and the flat granite roof slab to keep the front wall from tilting forward.

The massive pieces of granite that form the front walls were set in front of the granite roof slabs rather than under them. This was done so that the front wall could be constructed six to eight inches above the roof thereby acting as a barrier to keep soil on the roof in place.

At the end of a line of contiguous tombs, or, on either side of a single tomb, low stone retaining walls were constructed to keep the soil from eroding down the steep sided mound formed by the tombs. These low retaining walls frequently had only minimal foundations, or no foundation at all, and are therefore one of the most vulnerable parts of the construction and often the first to fall apart. The significance of the low retaining walls is frequently not recognized and after they collapse they are seldom rebuilt.

In addition to low retaining walls placed parallel to the longer walls, mound tombs frequently had a small retaining wall - often consisting of a single piece of granite - placed in line with the front of the tomb. Several of these in line retaining walls consisting of a single piece of granite are present in Hancock Cemetery.

Tombs with barrel vaults seldom have parapets that extend above top of the vault but, if they are part of a line of tombs, they usually have some sort of decorative stonework that bridges the valley between the low point of the vaults and serves to keep the soil in the valley from eroding forward.

There is a remarkable consistency from burying ground to burying ground throughout New England in the dimensions of the crypts and the manner in which they were constructed. The interior space is always entered through a small opening that is just wide and tall enough to allow a casket to be slide in. Usually, but not always, there are steps down to the floor constructed from brick or granite blocks. The floors, made of tamped soil or brick, are generally four feet below grade. The interior walls were sometimes parged with lime stucco and/or whitewashed.

The early 19th century builders did not have a good way to attach the front wall of the tomb to either the barrel vault or the flat roof slabs. Iron cramp anchors were sometimes employed to tie the two components of the tomb together but these anchors, because they bridged the top of the units, were exposed to the elements and vulnerable to corrosion.

Subterranean tombs

A variation on the mound tomb is the completely below ground tomb. Hancock Cemetery has at least two and maybe many more of these types of tombs. These tombs are constructed in the same manner as mound tombs but the vault or flat roof is generally completely below grade though sometimes soil erosion exposes the top of the structure.



This unmarked subterranean tomb has partially lost its covering layer of soil and grass, leading to potential damage to the vaulted roof.

Subterranean tombs were entered through a set of stairs that begins below ground. A slab of stone was usually placed over the stair entrance and then covered with soil. Over time, the

locations of many of these entrances have been lost. Subterranean tombs were almost always surmounted by a separate, freestanding table top tomb or monument but the presence of one of these structures in a cemetery does not always mean that there is a subterranean tomb below because table top tombs were frequently moved.

The type and condition of the table top tombs and monuments in Hancock Burying Ground are discussed in a separate section of the master plan. This writer has never entered an early 19th century tomb that is completely below grade and therefore does not know if the vaults on these tombs are true vaults that spring from all four side walls or barrel vaults that spring from two longer walls.

Subterranean tombs generally remain stable unless the masonry is infiltrated by tree roots or very heavy equipment is driven over them. The latter concern is usually only an issue in inactive cemeteries when heavy equipment is brought in to remove trees. For this reason it is important to document the location of as many of the subterranean tombs in Hancock Cemetery as possible. The least expensive way to locate subterranean tombs is through early maps or records that may record their location. Ground penetrating radar in the hands of an experienced technician is another way that tombs can be located.

General conditions and problems affecting tombs at Hancock Cemetery

Front walls

Mound tombs have a common problem that is a result of the 19th century mason's lack of an effective mechanism to tie the front wall of the tomb to the rest of the masonry. The problem is generally more acute in tombs with vaults than it is in those with flat slab roofs because, as discussed above, it was possible to place an anchor between the top stone of the front wall and the flat roof but it was not possible to effectively use the same type of anchor between the front wall and the vault. In cases where it was attempted, the anchor tended to dislodge the stones or bricks from the vault when the front wall began to shift.



Mature tree pressing against the front walls of a row of tombs resulting in the displacement of the front wall units. Roots of tree may also be undermining the integrity of the foundations.



Detail of tree roots growing over the top of a flat slab tomb. Tree appears to have grown opportunistically in the untended area behind the tombs.

Because there were few or no lateral anchors between the front walls and the rest of the masonry, the front walls have a tendency to tilt forward over time. The initial movement could either result from settling or deterioration of the foundation and/or ice forming in the collar joint between the front wall and the roof. To compensate for the lack of tie back anchors the builders often placed cramp anchors from side to side between the lintel stones of several tombs in order to secure all of the fronts in a row of tombs to each other reasoning that the greater mass would rest movement longer. Sometimes this strategy was effective and other times it resulted in all of the fronts tilting forward in unison.

Potential solutions for front wall tilt

Many tombs where the front wall has tilted forward less than ten degrees can remain stable for a very long period of time. The gap that is created between the roof and the front wall as a result of the movement is generally large enough that water no longer collects and freezes inside the collar joint. The gap however permits water and rodents to enter the tomb. The water eventually undermines the mortar in the sidewalls and foundation and if this deterioration progresses too far, the tomb can collapse. Rodents have no effect on the masonry but they do tend to colonize the spaces. It can be very unpleasant for the visitors to see large numbers of rats running though the cemetery.



Two trees growing in the soil cover behind the rear walls of a line of tombs. Roots from these trees may be undermining the integrity of the foundations or rear walls of the tombs.



Displacement and near collapse of the front wall of a tomb caused by the growth of a large tree adjacent to the front wall. Tree has been felled but only after the growth of the tree caused substantial damage.

To close the gaps that resulted from the tilting of the front walls, masons frequently filled the gaps with small stones or bricks and then parged over them with cement mortar or simply applied a thick layer of cement over the opening. This approach is generally effective for a decade or more but eventually, water than works its way between the stone and the cement freezes and jacks the wall even further. A low cost solution to the is problem is to monitor and then repair or replace the cement mortar when it begins to exhibit cracks.

While it was not possible for the original builders to tie the front walls to the rest of the structure it is possible to do so now. High strength epoxies allow for lateral anchors that will be in tension to be attached to holes drilled in the stone. This repair is of course still not viable for tombs with vaults but it is frequently possible to attach anchors between the front wall units and thick flat roof slabs. To do this, the upper units of the front wall have to be removed and reset. In many cases however, in order to correct the tilt in the front wall it is necessary to remove and reset all of the front wall units. In these cases it makes sense to anchor the front wall stones to each with vertical pins placed between the units.



Low tomb with granite slab front and entrance slab. Note lack of retaining wall between this tomb and the one of the left. Also note the makeshift repairs at the base of the slab after the front slab began to move.



Partially exposed vault roof of a subterranean tomb. Replacement of the soil cover is recommended to help stabilize the tomb.

For tombs with vaults the solution is more complex. Since the vault construction does not tolerate being pulled on, the solution is to bypass the vault all together. One approach utilizes long stainless steel anchors that tie the front wall to the rear wall or to concrete blocks, frequently called “deadmen” (no pun intended) installed behind the rear wall.

Rear walls

The problems that plague rear tomb walls have more to do with lack of maintenance and the growth of trees adjacent to the tombs than they have to do initial design problems. Trees tend to be allowed to grow opportunistically more frequently alongside rear walls or on top of roofs than in front of tombs and Hancock Burying Ground is no exception.

Tree roots easily infiltrate joints and then push the components of the walls apart as they continue to grow. When the trees die or are cut down, the roots eventually rot away and large gaps in the masonry remain.

Rear walls also deteriorate rapidly when the soil cover is eroded and the original soft lime mortar is exposed to the elements. Rear walls tend to be constructed fairly casually because they generally do not support the roof load.

The preventive maintenance solution is to maintain the soil cover over the rear wall. If the rear wall has been exposed for some time and the mortar joints are open, it is usually possible to repair the wall using a technique referred to as “structural repointing” or “deep repointing”. This repair involves removing not only the deteriorated mortar at the front of the joint - as it the case with the typical repointing projects - but also the deteriorated mortar deep within the bed joint and repacking it with a suitable mortar.



Low tomb with granite slab front and slate tomb cover. Note diamond shaped slate inset panel.



Detail of diamond shaped slate inset panel with carvings. Inset panel was probably imported and set in a slab of domestic slate. The inset panel is cracked and requires treatment.

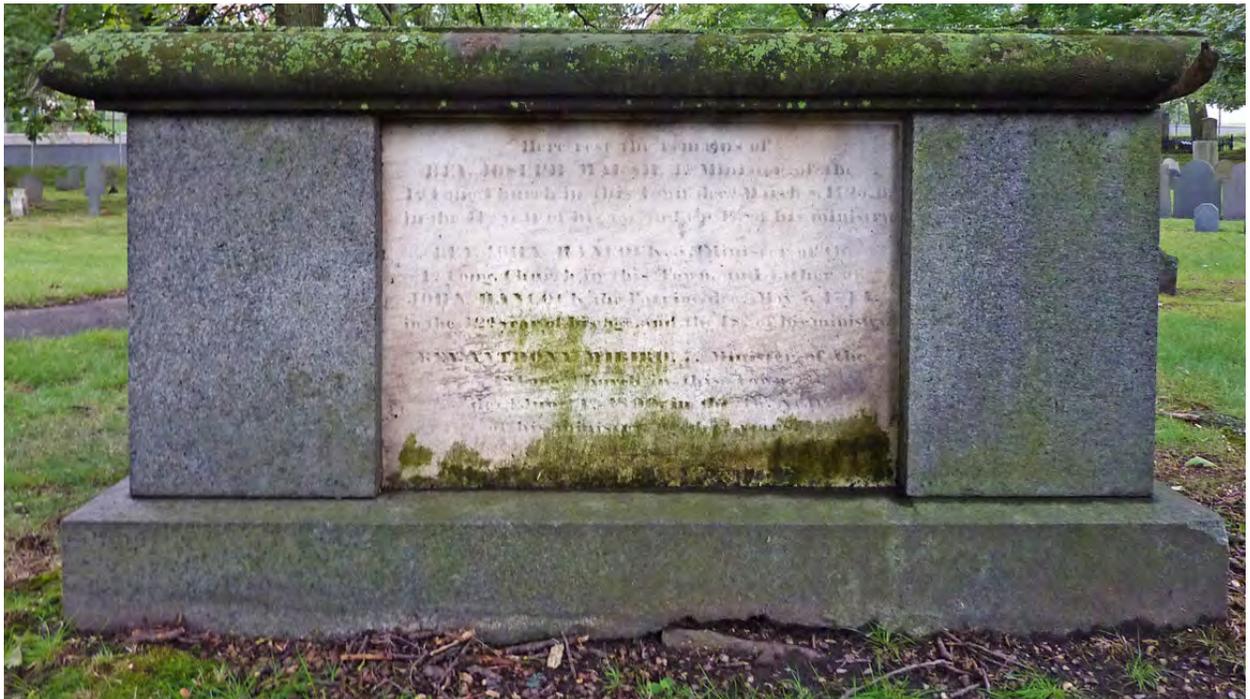
Working with Human Remains

One of the challenges that make tomb repair different from other forms of masonry restoration is that they contain human remains. The services of a professional hygienist or an archeologist may be required to certify that it is safe for workers to enter the vaults as there is a potential for bio-hazards in locations where humans have been buried. Sometimes it is possible to remove the human remains for the duration of the project and then reinter them after the work is done but this step can only be undertaken by individuals such as undertakers and archeologists that have the requisite training and certification to handle human remains.

Some recent tomb repair projects in Massachusetts have left the remains in place but buried them in several feet of sand. The workmen stand on planks laid down on the sand and after the work is completed the planks are removed but the sand fill is left in place. This approach is very effective for tombs where the remains are lying on or close to the floor. For tombs where the remains are resting on shelves built into the masonry, it is probably necessary to remove them prior to starting the work but in come cases, if the scope does not include major removal and installation of defective masonry, it might be possible to simply cover the remains.

General recommendations for tombs

- Remove trees that are growing adjacent to tomb walls. Where possible tree removal should include grinding out the stump and removal of the roots as well. However, in cases where the roots have infiltrated the masonry this latter step is not possible without also removing and rebuilding the masonry.
- Initiate a monitoring system to monitor the outward movement of all the tomb fronts. A yearly tape measure survey will suffice if the measurements are taken using the same points from year to year.
- Keep all tombs permanently covered with soil and grass. Replenish sod that has eroded on an annual basis.
- Install retaining walls in the locations where they are missing or have fallen down. New retaining walls should mimic the form and materials of the historic retaining walls in Hancock Cemetery. The below ground portions of the retaining walls may utilize newer forms of construction such as poured concrete and newer materials such as drainage cloth.
- Monitor the cement pargeing that has been placed over the gaps between front walls and the vaults. Replace any cement pargeing that is cracked or separating from the stone.
- Monitor the condition of any exposed original anchors. These anchors were usually set into the top of the stone with molten lead. Over time, water infiltrates into the anchor pockets and corrodes the anchor. Usually the anchor simply rusts away but in cases where the legs of the anchor were more massive, the expansion of the corroding iron can fracture the granite.



"The Ministers' Tomb" is available to be the final resting place of any Minister called to serve the United First Parish Church. It is the only place in Hancock Cemetery where interments may still occur.



Hancock Street wall and cast iron fence. Note film of biological growths on wall and rust stains on granite posts where cast iron arch connects to granite.

Perimeter stone walls and cast iron fences

Stone walls

Hancock Cemetery has three granite perimeter walls - one along Hancock street, one between City Hall and the northern boundary of the cemetery and one between the railroad track and the western boundary of the cemetery. The wall along Hancock Street, as well as the adjacent wall located between the cemetery and City Hall are constructed from dressed and worked units of Quincy granite.

The Hancock Street wall serves as a base for an ornamental cast iron fence as well as a retaining wall for maintaining the soil cover over the rear of the row of tombs that were constructed parallel to the wall. The wall and fence are interrupted by two entry gates formed by large granite posts and a decorative cast iron arch. The entries contain working cast iron gates that are mounted to the granite posts that flank the entrance. The wall is constructed from stacked dressed blocks of Quincy Granite with a rock faced finish on the Hancock Street side and random laid split units of granite on the interior side. The interior side of the



Northern end of Hancock Street wall and fence with section of western wall..

wall is not visible except directly adjacent to the entryways where the soil has eroded from the back of the tombs. The depth of the exterior blocks as well as the manner in which the inner and outer wythes are laid has not been established yet. The coping stones have a tooled finish and a wash that slopes towards Hancock Street. The joints are currently pointed with a cement based mortar that blends with color of the soiled stone. The properties and appearance of the original mortar have not been determined as of yet.

The granite wall between the Cemetery and City Hall is constructed in a different manner than the Hancock Street wall. This wall has a distinct inner and outer wythe with a gap between the two that is filled with broken fragments of granite. The mortar joints are currently pointed with a cement mortar but there does not appear to be any mortar in the cavity between the inner and outer wythes. The coping stones are beautifully worked to bridge the transition in elevation where the wall meets the row of mound tombs .



Eastern end of granite wall between cemetery and City Hall. Note shaped coping stone at change of grade as well as switch to smaller fragments of stone where wall disappears behind tombs.

The wall along the railroad side of the cemetery on the other hand is a simple, serviceable wall constructed from irregular blocks of granite set on a rubble stone foundation that is partially exposed. The top of the wall contains holes that indicate that some sort of fence was fixed to the wall in the past. The wall, which may have originally been dry laid is currently pointed with a modern Portland Cement mortar that was applied broadly over the edges of the stone.

These three stone walls are in good condition and, at present, only the wall along the boundary with City Hall requires some resetting work. The cavity that is part of the original construction makes the facing stones vulnerable to displacement from ice jacking. Water that enters the wall through open joints between the coping stones freezes in the winter—the expansion of the water as it turns into ice is responsible for the displacement. Correcting the problem requires removing the coping stones as well as the shifted facing stones and then resetting them. It may be possible to insert some mechanical anchors in the form of stainless steel pins to keep the wall from shifting in the future.

The Hancock Street wall has rust stains directly below each of the pickets as well as a fairly even film of biological growths. It does not make sense to attempt to clean the stone unless the cast iron is also going to be repainted—otherwise the stains will return fairly quickly. If the wall is going to be cleaned it is very important that cleaning tests be conducted in unobtrusive locations because many of the chemicals that remove iron stains from granite can also alter the color of the granite.

Cast Iron Fences and Gates

The cast iron fence, gates and arches over the entrance are a great example of mid-19th century iron work. The fence is formed from top and bottom rails with vertical pickets that span between the rails. Every other picket has an urn-shaped finial mounted on the top rail. The pickets without finials have a small capitals under the top rail in the form of lotus leaves. The bases of these pickets are form as inverted torches that are being extinguished against the bottom rail.

The design with open work arches that span the two entrances is unique. The three bands that make up the arches are not only curved to form the arch but also curved towards the viewer entering from Hancock Street. Two of the three bands in each arch contain an open work design of oak leaves and acorns and between these bands are texts spelled out in openwork letters.

The entry gates, which are operable, comprise two stacked sections. The upper sections have the same pickets, rails and finials as the fence, above a classical Greek-derived open work design in the lower section.

The cast iron fence, arch and gate are basically in good condition but the paint coat has reached the end of its service life. Portions of the oak leaves are missing from both bands on the north arch and one finial is missing close to the northern end of the fence. The fence, gate and arches were attached to the granite wall and posts by pouring and hammering lead into the holes in the granite into which the ends of the iron are set.

Every tenth picket in the fence is attached to holes in the top of the granite coping stones. The lead in these holes is not flush with the top of the hole and water is collecting in those recesses. The portions of the pickets just above the lead are pitted and corroded. If this condition is left unchecked, the picket will continue to deteriorate and eventually detach from the portion buried in the lead. The lead interface between the granite posts and the cast iron arches is appears to be loose and may be letting water into the holes in which the iron is set. Corrosion of the ends of the buried iron can lead to the cracking of the granite due to either rust or ice jacking.



Section of southern entryway with cast iron gate and arch set into granite post



Northern entry arch. Note missing oak and acorn pattern at top and bottom bands.



Detail of failing paint at lower rail of Hancock Street fence as well as recess for water created by weld plate installed between sections of the lower rail.



Southern terminus of rail road wall with leaning granite posts and holes in granite where an earlier iron fence was removed.

The Massachusetts laws regarding the handling of solid and melted lead as well as paints that contain lead must be consulted in determining the manner in which to replace or treat the solid lead in the holes as well as any remnants of lead paint on the iron. The repainting history of the iron has not been determined. Lead fillers were a component of traditional paint systems used on iron.

Testing by a qualified lab can determine if lead is still present in any of the existing layers of paint. The presence of lead will determine the manner in which the paint can be removed. There are a number of

modern paint systems available for repainting the cast iron. There is no consensus among conservators as to which of the many systems is the most appropriate to use to repaint historic cast iron.

In the 19th century, cast iron was screwed and bolted together not welded. The screws and bolts were usually set in slightly oversized holes that allowed the iron to expand and contract seasonally. The Hancock Street fence has plates that appear to be welded to the underside of the bottom rail in the locations where two sections of rail meet. The plates, which span the gap between the rails, are locations where water is collecting. This condition requires further investigation to determine if the plates should be removed or if the recess should be filled prior to repainting.

In addition to the Hancock Street cast iron fence, the cemetery also has an original low, Neo-gothic style, cast iron fence and gate surrounding the Dawes Family plot (markers 998 to 1003.) This fence is set on individual granite posts that are buried in the ground. The fence is mostly intact but suffering from long-deferred maintenance. Two of the corner finials are missing and water is entering the top of the open corner post. Soil and dead leaves have built up under the bottom rail and are creating a wet environment that is accelerating the corrosion of the iron. The existing paint has reached the end of its service life. The failing paint should be removed in a shop and at that time the connections and thin iron tracery elements should be inspected closely for cracks and pitting. The same precautions that pertain to lead paints for the Hancock Street fence should be applied to the family plot fence.



Cast iron family plot fence set on buried granite posts. Note missing corner finials and exposed tops of corner posts.

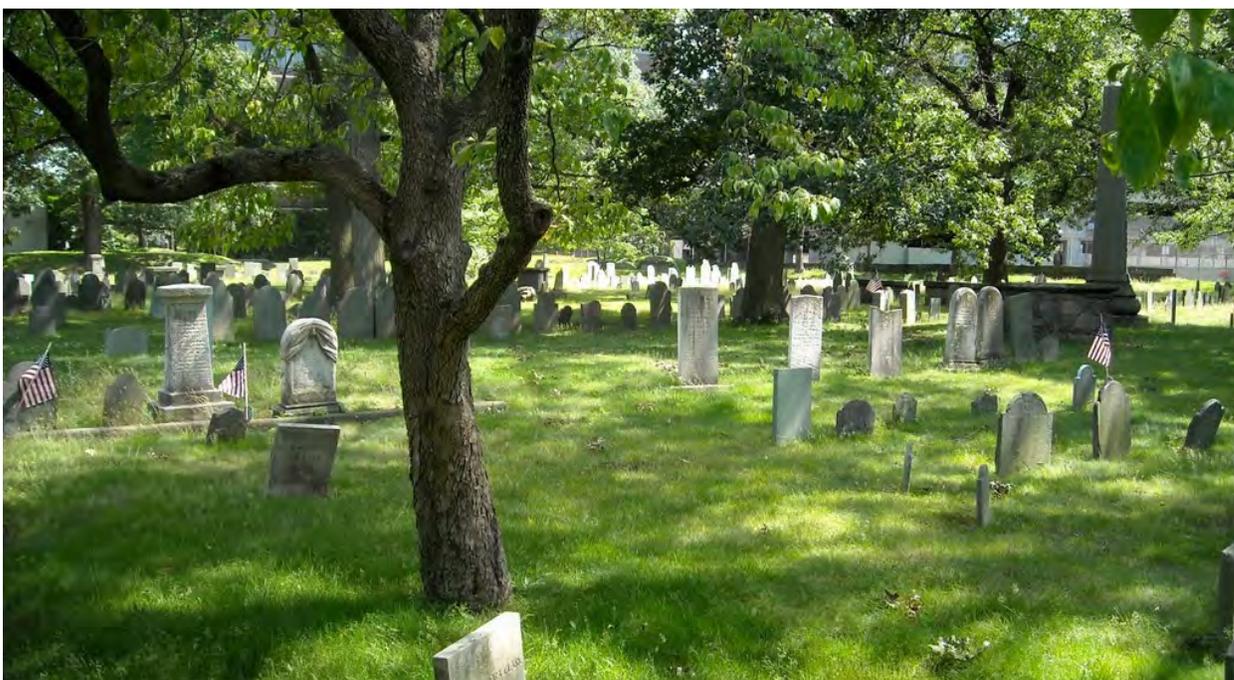
Chapter five

Landscape + access

Overview

Hancock Cemetery, located in the civic heart of Quincy, is one of the oldest, most attractive and historically significant burial grounds in Massachusetts. It is tucked into the city center, with historic views on several sides: Quincy's original granite City Hall, the United First Parish Church (Unitarian Universalist) and the 1880 Tudor Revival Adams Building.

Hancock Cemetery is not a "designed" landscape in the way that Mount Auburn Cemetery is. It is a vernacular creation, having evolved into its current state through the efforts and decisions of many generations of civic



Dappled shade in the summertime.

leaders and caretakers. In fact, the character of this place changed significantly over the centuries from an open meadow with burial markers to more of a park-like setting with paths and trees over a lawn.

Topography, natural features and spatial organization

Hancock Cemetery today occupies a largely flat, two-acre parcel with no significant natural features such as streams, wetlands or water bodies. There are numerous "artificial" elevations in the cemetery associated with



2011 bird's eye view.



2011 plan view of the Cemetery.

mounded tombs. The only apparently natural grade change occurs in the far northwestern corner where the ground rises four feet in the space of 64 feet. The spatial organization of the graves is naturalistic, although the headstone-to-footstone orientation of more than half of the graves is northwest-to-southeast. Mound tombs are largely arrayed in straight rows of between five and thirteen contiguous tombs. The alignment of these rows of tombs, for the most part, is parallel to the variously-oriented property lines of the cemetery.

Views and vistas

Over the centuries, Hancock Cemetery has evolved from an area in the middle of a large open field to a property hemmed in on three sides by urban development. These neighboring uses today consist of: office and commercial buildings and a parking garage, to the south; depressed commuter rail and rapid transit tracks to the west; and the sides of Quincy's two City Hall Buildings, the granite Old City Hall (1827) and the glass-clad New City Hall (1974) to the north.

The most critical view from Hancock Cemetery is the view to the United First Parish Church. This visual connection is not only



The view of the Church from the Cemetery, and vice versa, highlights the profound connection between the congregation and the many 17c., 18c. and 19c. families memorialized here.

beautiful, it manifests the important and historic links between the Cemetery and the Church. Many of the persons who are buried in Hancock Cemetery were members of the First Parish congregation, and of course, President John Adams and his wife, Abigail, were originally interred with their ancestors here before their remains were transferred to crypts in the Church, later joined by President John Quincy Adams and his wife, Louisa.

One of the least attractive features of Hancock Cemetery is the chain-link fence on the western edge. Replacement of the chain link with a simple, black, steel picket fence, 6 feet high, is recommended.

Characteristic vegetation

The biggest change from the Cemetery's earliest days is the presence of sizable, leafy trees. This mature vegetation today plays an important role in making the cemetery a comfortable place to visit and linger. The mature stand of native oaks and maples provides a welcome, leafy canopy in this urban setting. A large Littleleaf Linden near the northerly entrance is a prominent feature. A birch and smaller deciduous flowering trees, are scattered throughout the cemetery and were likely planted to provide seasonal color. Along the southern boundary of the Cemetery, mature Sycamore Maples have taken hold, while along the northern edge, a low evergreen hedge has been planted.

The existing plantings provide an important visual buffer to the urban conditions of the adjacent parcels, with the tall deciduous trees screening the high rise office complex and garage to the south and the evergreen hedges to the north softening the visual impact of the glass facade of New City Hall. In the near future, Hancock's mature vegetation will be an important backdrop when viewed from the new Adams Green promenade, part of the comprehensive revitalization of historic Quincy Center.

Nevertheless, there are several instances where mature vegetation in the Cemetery severely encroaches on existing burial markers and tombs. These areas will require immediate action to prevent additional damage and degradation of these valuable historic elements.

The execution of a vegetation removal and revitalization strategy will greatly enhance the long term preservation of historic features within Hancock Cemetery, while a yearly maintenance review will forestall future problems and enhance the value of this open space to Quincy. The plan (overleaf) illustrates these recommendations.

Trees

The trees at Hancock Cemetery fall into three broad categories.

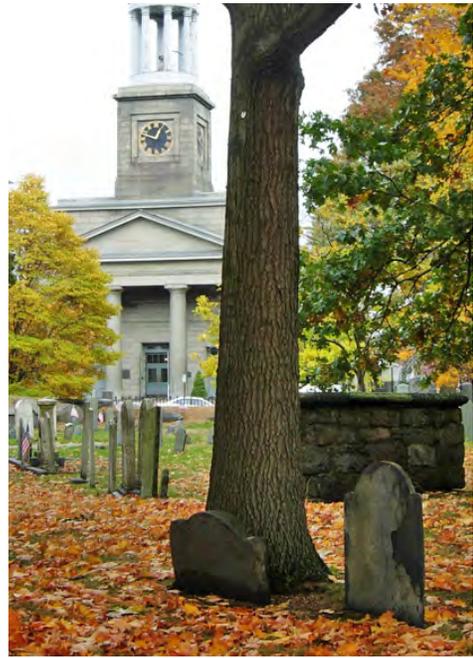
Priority 1 trees

In the first category are more than a half dozen oaks and maple trees, which because of their location are causing significant damage to adjacent burial markers or burial vaults and are considered monument conflict trees, requiring immediate removal by a certified arboriculture contractor to prevent further deterioration of these historic components. Also in this group are young, weedy Sycamore Maples located along the southern boundary, which are growing within burial vaults and require immediate removal to prevent further deterioration of the vaults.



This mature oak growth, shown on the left, is damaging a burial vault and will require removal; this is a Priority 1 tree impacting the cemetery's burial vaults.

Similarly, the oak shown on the right is severely damaging a burial marker and will require removal; this is also a Priority 1 tree.



Priority 2 trees

In the second category are trees that while not causing immediate damage should be slated for long range removal to prevent potential damage to burial markers or vaults. These mature trees provide important visual character to the cemetery and their replacement outside potential monument conflict zones should be considered. Also within this category are trees that are performing poorly, or reduced to unsightly stumps or are otherwise not contributing to the overall visual character.



The birch stump (left) does not contribute to the overall character of the cemetery and should be removed; this is a Priority 2 tree.

The sizable Littleleaf Linden [right] requires extensive pruning to remove unsightly sucker growth. This is a Priority 3 tree.



Priority 3 trees

The third category includes trees that appear healthy and are outside of known monument conflict zones. Nevertheless these trees will greatly benefit from an annual arborist evaluation and corrective pruning. The large Littleleaf Linden noted above as well as many of the smaller ornamental flowering trees throughout the cemetery fall into this category.

Summary

In conclusion, the trees of Hancock Cemetery serve a vital function in providing the cemetery with screening from the surrounding urban context and reminding the visitor of Quincy's quieter more pastoral early history.

If future tree plantings are undertaken within the cemetery, they should primarily be native tree species situated to serve as a visual buffer against undesirable views and planted to avoid conflicts with the existing monuments. For a discussion of appropriate (and inappropriate) species for replanting, see Appendix H.

When planting new trees, as with any other disturbance of soil 6" or more below the surface, an archaeologist should be consulted to ensure that no inadvertent disruption of historic resources or human remains occurs.



When lateral and hanging branches break, serious damage to memorials can occur.

Preventive tree care is one of the most important tasks that the City can undertake to protect grave markers at Hancock Cemetery. The picture to the left provides a good illustration of the risk to markers and monuments of low hanging limbs. If any of these limbs were to break and fall during an ice storm, nor'easter or hurricane, it could inflict significant damage.

Inspect trees annually (or more often if needed, for example after severe storms) to identify hazardous trees that should be pruned or

removed. This should be done by the town arborist, in conjunction with the Parks and Recreation Department and Cemetery Advisory Committee.

Develop an annual work plan for removal and pruning, with priority given to trees that present a hazard to burial markers and visitors. Care should be taken not to damage burial markers during the work, which will require special care as heavy equipment cannot get to most parts of the burying ground so work will have to be done by hand. In most cases of tree removal, trunks should be crowned at 3" below grade and the roots left to decay in place.

Erosion Control

The deterioration of the burial vaults along the northern perimeter of the cemetery due to erosion is of serious concern. Increasing the soil depth cover over the vaults and installing historically appropriate granite wing walls along the exposed vault edges to control soil runoff is recommended and further described



elsewhere in this report. It is noted here since landscape management practices, such as reduced mowing, may ameliorate the soil erosion problem along the top turf surfaces once other measures have been taken. Refer to the section under Turf for suggestions on high fescue grass.

Shrubs and vines

Hancock Cemetery does not have significant shrub or vine plantings and their use within the cemetery should be avoided in keeping with the historic nature of the setting. If shrubs were desired at some future date for screening or visual buffer purposes they should be planted along the periphery and only native non-invasive species should be selected.

Inspect burial ground several times per year for signs of invasive shrubs and vines, as well as for other small-scale plants that have grown out of control. Unlike removal of trees, which requires professional expertise, removal of shrubs can be done by volunteers. Manual removal of as much of the plant as possible, including roots, is the best strategy. See the City's Organic Pest Management Policy for specific guidance on dealing with invasive plant species.



High fescue grasses used on low- traffic areas at Mount Auburn Cemetery.



Turf

While the turf at Hancock Cemetery appears to be well maintained and in good condition, consideration should be given to the use of higher fescue grasses in areas where foot traffic is to be discouraged—particularly over the tops of mound tombs. Fescue grasses are more drought and shade tolerant than blue grass lawns and can be allowed to grow taller in keeping with the historic character of the cemetery. This longer, less-often-mowed grass approach has been implemented with success in selected locations at Mount Auburn Cemetery in Cambridge.

If the City of Quincy were to pursue this approach, provisions will need to be made for greater training of maintenance personnel in the identification and hand removal of invasive or weed species and in developing mowing schedules suited to this grass mix.

For the rejuvenation of general access lawn areas, a mix of fescues, blue grasses and rye grass developed by the City of Boston Historic Burial Grounds Initiative for its heavily-visited Old Granary Burial Ground is recommended. The specifications for both recommended grass seed mixes are provided in Appendix I.

At the beginning of each season, conduct annual training on safe practices for working in a historic burying ground. The target audience would be municipal maintenance workers and volunteers.

Turf maintenance.

Damage from lawn mowers is by far the most prevalent form of monument degradation at Hancock Cemetery, affecting 621 objects. Ensuring that this avoidable hazard no longer occurs is a major recommendation of this study. No ride-on mowers should ever be used. "Walk-behind" mowers should have bumper guards installed.

This can best be achieved by attaching closed-cell foam (such as that used for insulating pipes) using cable ties on the sides, front and rear of all mowers used in the Cemetery. Even with bumpers, mowers should never be used any closer than 6" from any monument. Cutting of grass within the 6" buffer may be done using a rotating string trimmer, provided that the "string" must be nylon filament with a gauge of 0.09", or less.

Circulation system

Currently the cemetery is entered through two gates along the Hancock Street wall. These wide, level access points should be maintained. The bituminous asphalt paths within the cemetery are in satisfactory condition except at two locations near the Hancock Street burial vaults where existing mature tree roots impinge onto the path. These locations are noted in the Landscape Recommendations Plan. As the plans for Adams Green and other Quincy Center redevelopment move forward, consideration should be given to providing an additional gated access point along the western edge of the cemetery boundary.

Accessibility.

Although the surfacing material (asphalt) is suitable for ADA access standards, the minimum width (4'-0") is not consistently available throughout the path system. Accordingly, the City of Quincy should repave the cemetery paths providing for a 48"-wide minimum accessible walkway with no greater than a 2% or 1:50 cross slope. The layout of the path system remains unchanged since the 1930's plan and should remain within that configuration except for the possible provision of an additional access gate along the footpath mentioned above. Any obstacles in the path, such as benches should be relocated. No new path alignments should be created without an archeological assessment of the presence of previously unknown sub-surface resources.



Recommended treatments

- Remove Category 1 trees as soon as possible. Crown stumps at a level 3" below grade and leave remaining roots in place. Cover with soil. Seed.
- Develop plan for removal of Category 2 trees – long range removal.
- For Category 3 trees, implement a yearly arborist walkthrough to assess tree health and required annual maintenance, including pruning of low branches and removal of invasive species.
- Provide screening and buffer tree plantings along the south west edge adjacent to the parking structure and footpath to augment the cemetery's tranquil and bucolic nature. (Note: Always consult an archaeologist when planting new trees or otherwise disturbing below the surface of the ground.)
- Replant and maintain lawn areas as specified above, specifically using a tall fescue seed mix on areas on top of tombs where public access is discouraged, and the recommended general seed mix for all other grass areas. (See Appendix I.)
- Implement the lawn maintenance guidelines specified above and train personnel in appropriate lawn care practices, to insure that no further mower damage is caused to the Cemetery's memorials.
- Replace the existing chain link fence and install a contemporary but compatible steel picket fence along the footpath on the cemetery's western edge. Consider including an access gate(s), especially if new development occurs above the rail tracks nearby. Unlike the two open entrances from the Adams Green direction, the gate(s) at the "back" of the cemetery should be able to be closed and locked if desired.
- Seek implementation of a visual landscape buffer for the cemetery on the adjacent parcel at the southeast corner of the cemetery, if removal or replacement of the existing building is proposed.
- Repave existing paths as specified above.

Chapter six

Implementation

Introduction

Although the precise date of the establishment of Hancock Cemetery is uncertain, we do know that it existed in 1640 when the original Town of Braintree was incorporated. If that year is taken as its beginning, this venerable plot of hallowed ground will reach its 375th birthday in 2015. The City may wish to see this milestone as an opportunity to focus on implementing this Master Conservation Plan so that celebrations that year will dedicate the renewal of this nationally significant place.



Deterioration of turf on area protecting tomb vaults along Hancock Street.

Telling the stories of Hancock Cemetery

As the Guiding Principles that are set forth in Chapter 1 attest, Hancock Cemetery has many complementary qualities. It is hallowed ground, a verdant place of quiet retreat, and a breathing space in the heart of the city. But it is also a rich testament to nearly four centuries of human endeavor and a place of memory.

Potential interpretive themes

As such, this historic burying ground has many potential stories to tell—stories that can deepen and broaden visitors' understanding and enjoyment of this remarkable historic resource. Several historic themes, or "storylines" suggest themselves:

- **Significant people** (Adamses, Hancocks, Quincys, Hoars, etc. make this site nationally significant; there are also important Revolutionary War figures, and local civic, business and religious leaders.
- **Broad patterns of history** (evolution of social attitudes toward death; patterns of mortality, age at death, epidemics, etc.; number of children; occupations.)
- **Information about early Quincy residents** (epitaphs are important source of information that is not readily found elsewhere).
- **Tomb design and construction**
- **Gravestone art** (carvers, iconography, typography, carving mistakes).
- **The cemetery as a civic institution** through history.
- **Influence and role of Quincy granite** at the Cemetery.
- **Local history** (one of the oldest sites in Quincy.)

On-site interpretive media

Location signs. The primary purpose of location signs is to identify the burial ground within the community. They are visible from the public way and contain basic information like name of burial ground, date established, owner, and may include additional information such as hours, key regulations (i.e., no rubbing). It should have an understated appearance consistent with historic character of the site. Some local police departments have strong feelings about citing the ordinance as they feel that this facilitates convicting any violators.

Interpretive signs. Many burial grounds also include an interpretive sign(s) that highlights the history of the site and important people buried here. This often includes a map that shows the location of important features within the cemetery. One interpretive sign is probably plenty for a cemetery like Hancock. Should have understated appearance, avoid bright colors. Keep message simple as this is aimed at casual visitors. It should include source to contact for additional information.

Historic signs. Some of these were erected as part of historic events and have taken on historical significance in their own right.

Other interpretive media

Interpretive brochure. Hard copies for special occasions. Also could be made available on website, maybe at City Hall, National Park Service Visitors Center.

Budget estimates

The scope of this Master Conservation Plan did not include detailed analysis and design studies that could be used to generate precise cost estimates. Nevertheless, professional estimates of the costs associated with implementing this report's recommendations have been made by the several technical specialists on the consultant team. These cost estimates are presented here for implementation planning purposes.

Grave markers + tombs

General comment. The pool of firms that are qualified to work in historic cemeteries and burying grounds in New England is relatively small but growing. As more firms become qualified to do cemetery conservation work it is likely that prices for certain tasks will continue to come down. However, in budgeting for projects beyond 2011 it is important to factor in the rising costs of transportation as well as the overall rate of inflation.

Note on Contractor Qualifications. The repairs that are required to the grave markers, mound tombs, monuments, table top tombs and walls require differing skill sets. For example, the resetting of toppled markers can frequently be completed by town cemetery employees or by contractors who specialize in landscape work. The resetting of two and three part headstones requires the skills of a competent mason who can either be a town employee or an outside contractor. The repairs to broken or damaged historic grave markers on the other hand should only be contracted to trained conservators who specialize in the conservation of outdoor stone monuments and grave stones. This last point cannot be stressed enough since a great deal of permanent damage can be done to a two hundred year old stone in a matter of minutes by someone who is not trained specifically in this field. The only way to determine which contractors are qualified for each task is to ask for, and then check, references. All requests for proposals should contain strong contractor qualification language in order to make it easier to disqualify unqualified contractors.

Maintenance and basic repairs to mound tombs such as repointing and resetting shifted units can be completed by the town's in-house masons or by outside contractors experienced in the repair of historic masonry. Structural repairs to mound tombs, particularly rebuilding damaged vaults or toppled tomb fronts requires the input of specialized contractors who have experience rebuilding traditional masonry structures.

As with all masonry and contracting work there are economies of scale that can be achieved by grouping similar tasks together in the same contract. If possible, dissimilar tasks such as gravestone conservation and mound tomb repair should be bid out in separate contracts.

Budget guidelines for treating historic grave markers (in 2011 dollars)

- Resetting toppled headstones \$ 75 to \$150 each depending on size
- Resetting two and three part markers \$ 250 each
- Repairing broken markers and resetting \$ 800 to \$1,200 ea. depending on size.
- Markers that are broken *and* require additional conservation treatments along with resetting \$1,800 to \$2,200 each

Estimated grave marker and tomb costs (in 2011 dollars)

Category	Range of costs*	Per line item		Sub totals	
		Low	High	Low	High
		\$'s	\$'s	\$'s	\$'s
Grave markers (Priority 1) **					
Resetting only (105 markers)		11,000	15,000		
Resetting and/or restoration treatment (51 markers)		40,000	48,000		
Subtotal Priority 1 grave markers				51,000	63,000
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<i>Grave markers (Priority 2- moderate) ** (48 markers)</i>		<i>27,000</i>	<i>31,000</i>		
<i>Grave markers (Priority 3-preventative) ** (127 markers)</i>		<i>50,000</i>	<i>55,000</i>		
Total all grave markers needing resetting and/or treatment				128,000	149,000
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Tombs					
Tomb 273:		11,800	13,000		
Tomb 274:		1,100	1,200		
Tomb 280:		10,000	11,000		
Tombs 281 and 282:		7,300	8,000		
Tomb 283:		1,800	2,000		
Tombs 296-300:		3,600	4,000		
Tombs 301-305:		5,500	6,000		
Tombs 306-313:		11,000	12,000		
Tombs 314- 317:		5,500	6,000		
Tombs 318-331:		3,600	4,000		
Tombs 332-337:		8,200	9,000		
Tombs 338 and 339:		1,100	1,200		
Tombs 340 -344:		4,500	5,000		
Tombs 345 - 357:		10,000	11,000		
Tomb 371:		2,300	2,500		
Tomb 133:		6,400	7,000		
Total top priority tombs ***				93,700	102,900
TOTAL TOP PRIORITY Grave marker + tomb treatments				144,700	165,900
TOTAL All grave marker + tomb treatments				221,700	251,900

* Range of costs to reflect contingencies, such as inflation and potential archaeology consults.

** Refer to chart on page 28 for criteria used to prioritize grave marker treatments.

*** The tombs numbered 275-277 and 284-295 do not require treatment at this time.

Landscape treatments

General comment. The 2011 cost estimates presented here fall into two categories:

- Items for which no design is required. These include arborist services for tree pruning or removal.
- Items which *will* require design services before implementation. For these items, as a group, an allowance for design of 10% is included.

A. Design not required

Item	Remarks	Units	Quantity	Unit cost	Amount	Sub-total
Trees - Category 1	Removal	per tree	10	\$2,000	\$20,000	
Trees - Category 2	Removal	per tree	10	\$2,000	\$20,000	
A. Sub-total						\$40,000

B. Design required

Item	Remarks	Units	Quantity	Unit cost	Amount	Subtotal
Steel Picket Fence	Assume 6' high. Pickets	Linear feet	545	\$250	\$136,250	
Bit. Conc. Walkway	Replace	Square yards	640	\$37	\$23,680	
Reseed lawns		Square feet	80,359	\$.50	\$40,175	
Miscellaneous signs		Allowance	1	lump sum	\$5,000	
Sub-total						\$205,105
Design	@ 10% of const cost				\$20,510	
B. Sub-total						\$225,615

Sub-total	All landscape treatments (A. + B.)	\$265,615
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Contingency*	@ 10% base costs	\$26,561
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TOTAL	\$292,176
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Note: Above landscape costs do not include archaeological consultation, which may be necessary for some activities

** Contingency to cover inflation and ancillary expenses such as archaeology.*



