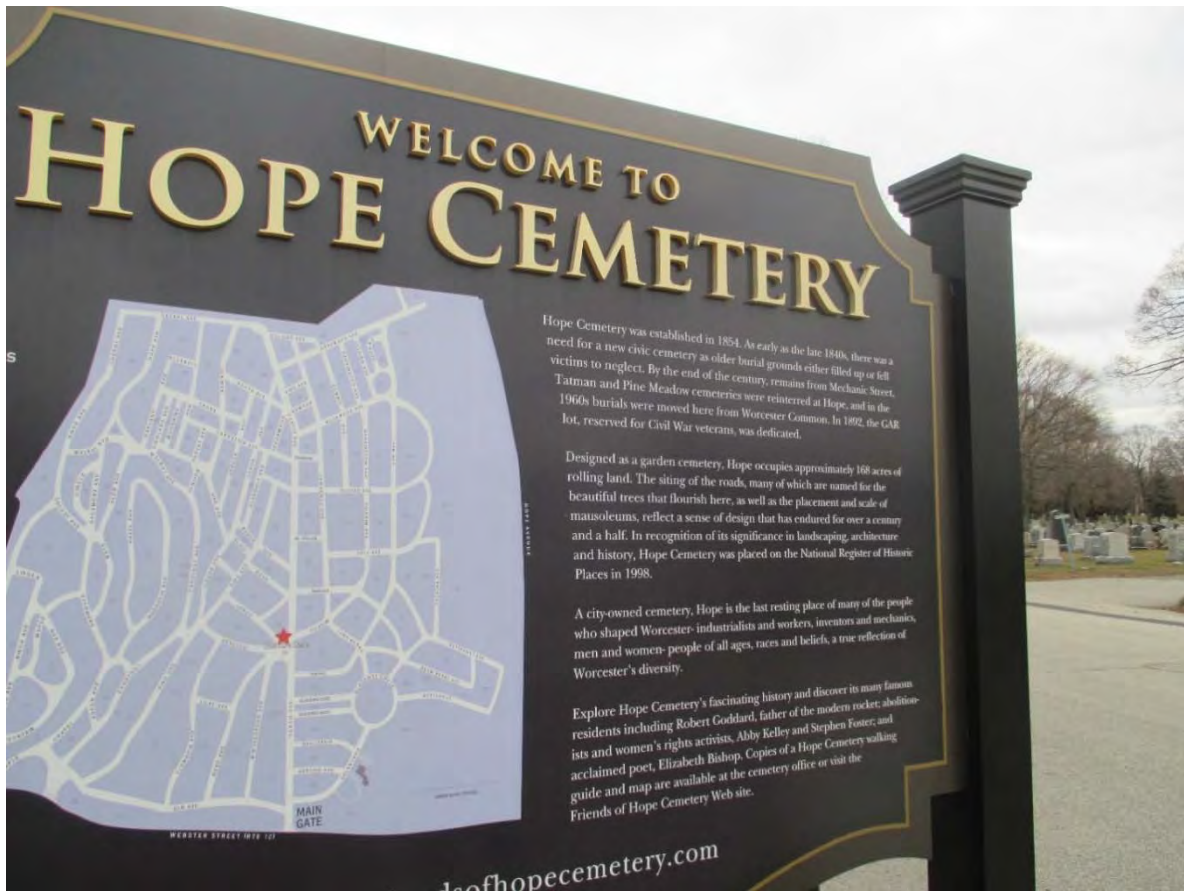


Cemetery Master Plan

For
Hope Cemetery



JANUARY 8, 2018



Prepared for:
City of Worcester DPW & Parks;
Parks, Recreation and Cemetery Division
Hope Cemetery
119A Webster Street
Worcester, Massachusetts

Prepared by:



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CEMETERY HELPFUL SOLUTIONS

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SECTION 1.0 – BASIS OF THE REPORT

1.1 PURPOSE OF THE REPORT

The Cemetery is in need of additional burial space and wishes to expand the cemetery through a variety of memorial options. This report has been prepared to provide information to optimize the use of the remaining land area, maintain an aesthetic atmosphere and provide for the needs of the City in as efficient manner as possible using industry standard techniques and through the collection of input from interested parties within the City.

Hope Cemetery, dedicated in 1852, is Worcester’s second garden cemetery, born of the “rural” cemetery movement inspired by romantic perceptions of nature, art and the themes of death, as well as by the realities of civic development and identity.

As early as the late 1840s, the need for a civic cemetery was under discussion as other older burial grounds either filled up or fell victim to neglect. By the end of the century, remains from the Mechanic Street, Tatman and Pine Meadow cemeteries were interred at Hope, and in the 1960s burials were moved here from Worcester Common.

A city-owned cemetery, Hope is the last resting place of many of the people who shaped Worcester - industrialists and workers, inventors and mechanics, men and women—people of all ages, races and beliefs.

Hope Cemetery is truly a reflection of Worcester’s diversity. Few places in the city offer better evidence of the ethnic saga of Worcester as it mirrors the melting pot of all of the United States.

Before acquiring their own cemetery in 1986, Worcester’s growing Jewish community looked to Hope to ensure proper burial. There are two Jewish burial sections in the cemetery acquired between 1881 and 1916.

A large Muslim lot purchased in 1919 abuts a similar group lot secured by the Syrian Brotherhood Orthodox Society in 1911.

In the early 1980s, The Council of Eastern Orthodox Churches purchased and facilitated the development of an Orthodox section where each Memorial Day the Worcester churches gather in the cemetery to pray.

Although never a large community, a group of Norwegians established a lot in the cemetery in 1884.

Charles Hanson, the first Swedish resident of Worcester and Ung Shee Chin, the first Chinese woman to make her home in Worcester, are interred at Hope.

Hope Cemetery occupies approximately 168 acres of rolling land which has been carefully worked to create views and vistas that enhance the natural beauty of the grounds. The siting of the roads and paths, many of which are named for the beautiful trees that flourish here, as well as the placement and scale of the mausoleums, all reflect a sense of design that for over a century and a half has continued to make this a “beautiful spot”. In 1998, Hope Cemetery was placed on the National Register of Historical Places. The recognition assists in the preservation of the cemetery as part of the city’s great heritage.

A cemetery is sacred ground providing open space and living memorials to those memorialized therein. It is best summarized by Mary Lou Brennan's poem:

A cemetery is a history of people,
A perpetual record of yesterday,
A sanctuary of peace and quiet today,
A cemetery exists because every life is worth living and remembering always.

1.2 GENERAL UNDERSTANDINGS

- The cemetery was established in 1851 with an area of 143+/- acres of land.
- The cemetery is not located within a drinking water groundwater supply area.
- There are no listed rare species habitat on, or within close proximity to the site.
- In the past the City operated a compost facility on the site which has been moved elsewhere and the land used by the compost facility is available for cemetery use.
- Existing conditions plan can be compiled using record sales maps provided by the Client and GIS information that includes assessor's lot lines, edges of pavement and two-foot contours, but no individual grave lot lines. This information should be sufficient for master planning purposes.
- Burial space in the cemetery is available to residents of Worcester as well as non-residents.
- There is a Friends of Hope Cemetery group that is interested in the Cemetery.
- The cemetery and some structures thereon are listed on the National Registry of Historic Places.

1.3 Scope of Services for the Study

This report has been prepared at the request of the City of Worcester based on the following **Scope of Services**.

TASK 1: DATA COMPILATION AND REGULATORY ASSESSMENT

- Compile an existing conditions AutoCAD plan using available GIS data for topography, wetlands, assessor's lot lines, zone lines, aquifers, rare species, SCS soils data and similar available information.
- Walk the land to identify possible cemetery expansion areas and evaluate expansion potential as well as identify site restrictions (steep grades etc.). This task is budgeted for up to three days' time.
- Once areas available for possible expansion are identified, observe up to one day of soil test pits and prepare soil evaluation logs (using Title 5 format) to observe soil conditions and estimate seasonal high water table. It is expected that the cemetery will provide a backhoe and operator for this task.
- Review and tabulate applicable regulatory controls such as Wetlands Bylaws, Zoning, Board of Health and MGL Chapter 114.
- Research the restrictions, if any, under the Massachusetts or National Historic Register listing.

TASK 2: COMMUNITY INVOLVEMENT

- Prepare for, including the preparation of a Power Point presentation and/or handouts, and attend up to five (5) community meetings to receive input, hear wishes and interact via comments on master planning proposals.

TASK 3: CEMETERY NEEDS ASSESSMENT

- Review information provided by the cemetery on the Perpetual Care Funds, fee structure, annual interment rate, annual lot sales rate, cremation interment rate, staffing and equipment, location of competing area cemeteries and regional cultural information.
- Study future trends in the cemetery industry to project what form and manner of operation cemeteries will likely take over the next 20 years. This will be based on

Hope Cemetery Master Plan
Section 1 "Basis of the Report"
January 8, 2018

information from professional affiliations with cemetery and cremation associations, and our knowledge of the industry trends.

- Research and evaluate disposition/burial options for cremated remains and commercially available niche wall/columbaria /feature products.
- Investigate projected rates of cremations by Cremation Association of North America (CANA), population / mortality projections and memorial trends / options. Using this information, estimate short and long-term demand for interment or inurnment at the cemetery.
- With the aid of information provided by the Client, identify the name and location of surrounding cemeteries that share in the cemetery's market share, and estimate the cemeteries area market share.

TASK 4: RULES, REGULATIONS AND FORMS (A CHS TASK)

- Review the Rules and Regulations of the cemetery, forms used and overall operation of the facility. Observe the cemetery operation and interview staff on their understanding of the facility.
- Prepare and submit draft copies of proposed Rules and Regulations and forms.
- Prepare for and meet up to three times with the Client to discuss the proposed information.
- Modify the documents and provide the Client with pdf copies thereof for their exclusive use in operating the cemetery.

TASK 5: MASTER PLAN AND REPORT

- Evaluate development options for undeveloped areas within the boundaries of the existing cemetery.
- Using the compiled existing conditions plan, prepare a conceptual site plan showing a cemetery expansion with the layout of the driveways, grading, estimates of grave/niche capacity, possible site improvements to existing components, sketches and photographs of similar projects and provide an analysis comparing the plan to the objectives and goals of the Client.
- Estimate the potential yield and sales life of the remaining areas of the existing cemetery.

- Based on estimated demand for interment of full casket burials and cremated remains, recommend a next phase of development.
- Review office management procedures and offer recommendations on software improvements.
- Evaluate the ratio of Cost to Fee based on operating costs and fees charges for services and sales of interment rights.
- Prepare an order of magnitude estimate of construction cost for the next phase of expansion and a budget for a long-range plan.
- Offer recommendations and comments with respect to improvements on the historic barn or equipment buildings.
- Provide a summary report of the findings / recommendations of the master plan study.

This report has been prepared by BSC and CHS Consulting Group (CHS) as a combined effort in cemetery design and operations. The team has a long-term relationship in the cemetery industry and utilized their complimentary skills to prepare the master plan.

Both BSC and CHS are active members of the Massachusetts Cemetery Association and the New England Cemetery Association and offer in excess of 80 years of combined cemetery experience.

David Crispin, PE PLS served as project manager. He has 41 years of experience in cemetery design, construction and operation. His specific cemetery experience has included the mapping of over 300 acres of cemetery and the design and construction of over 80 acres of cemetery with thousands of lawn crypts, full body mausoleum crypts, cremation niches and gravesites.

Tom Daly CCE, of CHS Consulting Group served as the team's cemetery management consultant. His expertise as a nationally recognized Certified Cemetery Executive and a national contact within the cemetery industry is of great value in evaluation of the cemetery trends, finances, rules and regulations and overall cemetery operation. CHS has teamed with BSC for several cemetery projects. Mr. Daly is the Chairman of the Legislation and Consumer Affairs Committee for the Massachusetts Cemetery Association and was an appointed delegate to the joint committee of Veteran Affairs at the Massachusetts State House for cemetery issues. He also serves on the Board of the Cemetery Consumer Service Council in Sterling, Virginia.

1.4 PUBLIC MEETING PROCESS

Over the course of several months, three televised public meetings occurred in City Hall and three Board meetings occurred to discuss the master plan. Attendance range from 10 to 15 persons during each of the three public meetings.

PowerPoint presentations were made at each meeting that demonstrated the progress on the Master Plan and allowed for comments and questions be made throughout the effort.

A summary was made of the mapping completed, soil test pit program completed, various development options were offered in discussions revolved around potential for development of grave space for the members of the Orthodox Church and a Muslim burial area. Options were presented and communications exchanged resulting in the attached plans.

Various interment options including special lot sizes and outer burial containers were discussed specifically with respect to the Muslim tradition being requested.

Discussion occurred relative to the front sections at the entry way and possible reconfiguration of grave layout to enhance appearance and potential lot sales.

Other discussions were held regarding the historic nature of the existing structures (the barn/equipment building) and what could be done with them. It was acknowledged that the existing structures were in poor condition and would be difficult to maintain.

Meeting #	Date	Location	Meeting Objective
1	November 30, 2015	City Hall Council Chambers Room 302	Project Introduction / Discussion
2	December 14, 2015	City Hall Council Chambers Room 302	Continued Discussion
3	March 8, 2016	City Hall Council Chambers Room 302	Continued Discussion
4	May 3, 2016	City Hall Levi Lincoln Chamber Room 30	Plan Presentation
5	June 6, 2016	Hope Cemetery 119 Webster Street	Cemetery Assessment Summary
6	June 27, 2016	Hope Cemetery 119 Webster Street	Meeting discussion Muslim and Orthodox Sections
7	December 19, 2016	Hope Cemetery 119 Webster Street	Present Draft Master Plan to Hope Cemetery Commission
8	January 3, 2017	Hope Cemetery 119 Webster Street	Prioritizing the Plan Commission meeting
9	February 7, 2017	Hope Cemetery 119 Webster Street	Rules and Regulations
10	March 7, 2017	Hope Cemetery 119 Webster Street	Canceled due to Snow
11	April 4, 2017	Hope Cemetery 119 Webster Street	Rules and Regulations and Forms
12	May 2, 2017	Hope Cemetery 119 Webster Street	Update Board on Progress
13	June 20, 2017	Hope Cemetery 119 Webster Street	Final Acknowledgement of Report and Forms

Meeting invitations and attendance records are included in Appendix H & I.

SECTION 2.0 –CURRENT CEMETERY OPERATIONS AND NEEDS ASSESSMENT

2.1) OVERALL CEMETERY DESCRIPTION AND HISTORIC SUMMARY

The existing cemetery is located at 119A Webster Street in Worcester, MA and provides burial space for its residents via the sale of lots and the installation of markers and monuments. The cemetery is owned by the City of Worcester and is managed by the Department of Public Works and Parks; Parks, Recreation & Cemetery Division, which is responsible for the maintenance and management of over 160 acres

The cemetery outline is shown in figure 2.1.1 below. There are two entrances on Webster Street by which to access the Cemetery. Both entrances are on the western side of the cemetery, however only one is currently active.



Hope Cemetery Master Plan
Section 2 “Current Cemetery Operations and Needs Assessment”
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Figure 2.1.1 Hope Cemetery Locus Map

The “Nixon Gate” is not used due to site restrictions when exiting onto Webster Street. Funeral processions always enter at the south entrance and are met by cemetery personnel and directed to the gravesite for interment services.

Hope Cemetery was dedicated by the City of Worcester in 1852 to serve as the last resting place for the people who were pivotal in helping shape the City of Worcester and its identity. The cemetery is Worcester’s second garden cemetery and the design was inspired by romantic perceptions of nature, art and the themes of death, as well as by the realities of civic development and identity. (Ref: Friends of Hope Cemetery). Through the late 1800’s, Hope Cemetery replaced at least six burial grounds in the Worcester area as land demand grew. By the turn of the century, remains from Mechanic Street, Tatman and Pine Meadows cemeteries were reinterred at Hope Cemetery. In 1960, some graves were moved from the Worcester Common and reinterred at Hope Cemetery.

Hope Cemetery is characterized by thoughtful landscape design, cohesive roads and paths as well as the siting and the site of private mausoleums that occupy the rolling terrain. In 1998 Hope Cemetery was placed on the National Register of Historic Places.

There are currently three buildings in the cemetery that provide approximately 10,200 square feet of floor area.

1) The Main office and Chapel Building

The main offices at Hope Cemetery occupy the existing one story brick building at 119A Webster Street at the southern portion of the site. The building shown in figure 2.1.2 below was constructed in 2001 and has a gross floor area of approximately 4,300 square feet.



Figure 2.1.2 Main Office Building

2) The Historic Wood Frame Garage Warehouse

The existing 4,000 square foot wood frame garage warehouse, figure 2.1.3 below, is currently being used by the grounds crew as an equipment storage area. This building is reported in the National Register of Historic Places to have been built in 1889. According to the Worcester assessor's office information, the building was assessed in 2015 and has a structure value of approximately \$293,000. This very low assessment indicates the condition of the structure to be poor.



Figure 2.1.3 Wood Frame Equipment Garage & Warehouse

3) The historic wood frame office/ garage structure

The grounds crew utilizes an existing 1,900 square foot building adjacent to the wood frame warehouse as a breakroom, locker room, grounds / mechanic garage and general purpose area (see figure 2.1.4 below). The double bay garage in this building serves as a mechanic shop for the on-site equipment. This building is reported in the National Register of Historic Places to have been built in 1882, enlarged in 1889 and also had a vault added in 1930. According to the assessor's database, it has a 2015 assessed value of approximately \$255,000 (considered low).



Figure 2.1.4 Grounds / Mechanic Garage

2.2) OPERATING PRACTICES AND PROCEDURES

Appendix E includes a copy of the most current City of Worcester Rules & Regulations for Hope Cemetery revised as of 2011 (See Appendix J for suggested changes). These regulations are under review and are to be updated based on changes with cemetery policies and compliance with state general laws.

The current cemetery policy states that all rights are sold for the ultimate use of the license holder and his or her designated heirs. The cemetery owns the lots by law. No heir may dispose of the lot except to the cemetery at a price no higher than the original price. A legal heir may donate a lot to a person of his / her choosing but the transfer must be acknowledged and ratified by the cemetery.

Double deep burials are currently prohibited. Grave capacities are limited to no more than one body (full casket burial) plus the cremated remains of up to two bodies that may be interred in one grave, vault, crypt or niche.

The staff at the cemetery is made up of full time and seasonal staff. All staff are employed by the City's Department of Public Works and Parks; Parks, Recreation & Cemetery Division. There are two members of the staff in the business office of the cemetery who handle the administration, recording keeping, and verify information for burial committal services. There is a cemetery Foreman, Working Foreman and five other full time employees that are at the cemetery each day. Seasonal part time staff assist with maintenance throughout the non-winter months. The operations ground staff are responsible for the maintenance of the cemetery and prepare all committal services that have been approved from business office work orders.

Opening and Maintenance Costs / Charges:

Observation of site activities indicated all four full-time staff were involved in the preparation of the grave setup, excavation, closing of the grave after service and flower clean up. These four full time staff members, including a backhoe operator and Foreman are involved in the preparation of the grave, setup and closing of the grave after service and flower clean up.

The business office staff receives the service order, confirms information with records, prepares work orders and completes after service record keeping of all required cemetery record information. Considering the time and estimated hourly rates including benefits, of both business staff and operation staff, the cost to provide this service is summarized below.

Based on estimated salary costs and a 40% overhead benefit cost and using an estimated 17.5 person hours are required per funeral, each funeral is estimated to have a cost of approximately \$550. Industry standards typically charge one and half times additional to the rate of the cost. Using this factor, grave opening charges should be on the order of \$1,300, as opposed to the \$900 currently charged. Being a municipal operation that provides services to its residents, a lower multiplier may be used.

Typically, approximately 25% of the entire labor effort in the cemetery is used on funeral and the remaining time (75% of the effort) is involved in maintenance activities.

The fiscal year 2016 -2017 operating budget for the cemetery is reported at \$833,823. This is summarized on Table 2.2.1 on page 14.

Funding Sources

Income supporting the cemetery budget is estimated as follows:

Lot Sales: In 2015, 110 lots were sold totaling 208 +/- graves (excluding the 12 indigent graves that were not bought) with a net income of \$190,000. After placing 40 % into the Perpetual Care Fund, lot sales contribute \$114,000 (approximately \$550 per grave) to the cost of operations.

As this report was prepared in 2016, 2015 figures were used for the study. Lot sales in 2016 were 131 lots and through May 2017 : 59 lots. These figures indicate a possible increase in lot sales in 2016 but not significant as to affect the budget analysis significantly.

Interment Fees: Based on the reported number of funerals and the current fee structure, in 2015, 236 funerals (25 of which were indigent with no income) occurred with a net income of approximately \$198,000.00.

Income from Perpetual Care: Income available from PC interest is reported at \$120,000.00 +/- per year.

Tax Burden: By subtraction as tabulated below:

Actual estimated operational cost:	\$ 830,000.00
Income from grave sales after PC contribution:	- \$ 114,000.00
Income from Interments	- \$ 198,000.00
Tax Burden estimate	-\$ 518,000.00

Costs	225 services per year							cost per year			
	hours per week	Hours funeral	Funeral hours per year	Total Hours/ year	Maint hours per year	rate \$/hr	cost per funeral	cost per funeral incl 40%	total salary per week	costly incl overhead/benefits	cost per year
Assistant Commissioner	4	0	0	208	208	\$57.05	\$0.00	\$0.00	\$228.20	\$319.48	\$16,612.96
Director of Maintenance, Parks and Cemetery	14	0.5	112.5	728	615.5	\$37.69	\$18.85	\$26.38	\$527.66	\$738.72	\$38,413.63
Business office					0						
Staff assistant 2	40	2	450	2080	1630	\$27.09	\$27.09	\$37.93	\$1,083.60	\$1,517.04	\$78,886.08
Customer service representative	37.5	1	225	1950	1725	\$18.03	\$18.03	\$25.24	\$676.13	\$946.58	\$49,221.90
Laborer three laborers full time	120	9	2025	6240	4215	\$25.08	\$225.72	\$316.01	\$3,009.60	\$4,213.44	\$219,098.88
Forman	40	1	225	2080	1855	\$27.09	\$27.09	\$37.93	\$1,083.60	\$1,517.04	\$78,886.08
Equipment operator	40	3	675	2080	1405	\$25.08	\$75.24	\$105.34	\$1,003.20	\$1,404.48	\$73,032.96
Working forman	40	1	225	2080	1855	\$25.21	\$25.21	\$35.29	\$1,008.40	\$1,411.76	\$73,411.52
Seasonal average over year 4 persons	283			7350	7350	\$11.00			\$3,109.62	\$0.00	\$80,850.00
40 hrs /week/32 week/yr											
Other costs - fuel, heat-util, ins, trees, pavement, materials, equipment											
Total			17.5	3937.5	17446	13508.5		\$417.23			\$826,892.03
Hours per year											
Income											
Interment full casket	155					\$900.00					\$139,500.00
Interment cremation	70					\$480.00					\$33,600.00
Tax base by subtraction...											\$602,492.03
Total											\$775,592.03
Other Income											
Lot sales After PC contribution	95					\$540.00					\$51,300.00
Friends of Hope Cemetery											\$0.00

Table 2.2.1 Operation and Maintenance Costs and Charges

Other Potential Funding Sources

The “Friends of Hope Cemetery” organization has been very active working with the management of the cemetery and through their fund raising to help provide funding for the construction of a children’s section, the installation of a new water system, and preservation projects on other historical areas of the cemetery. Their efforts also assisted with the publication of the visitor’s guide, cemetery map and interpretive signage.

Other groups that benefit with special designated sections in the cemetery (I.E. the Orthodox Section or the Islamic Section) may be a source for development funds. This type of funding was used in the past; however, it is recommended that if these special sections are developed, the administration should handle all sales of graves. (The Orthodox community has indicated a willingness to assist in funding development new sections. This should probably be best completed by sale of lots and not by an advance payment.)

Increasing average grave price from \$900 to approximately \$1,400 would add an additional estimated \$25,000 to the operational budget. A premium grave rate could be charged to help offset the cost for designing and developing sections reserved for special interest or faith community groups or non-residents.

2.3) POPULATIONS, INTERMENT HISTORY AND MARKET SHARE

Census data and population estimates for the City of Worcester indicate a current population estimate of 183,016.

Between 2000 and 2015, the population of Worcester increased from 172,648 to 180,800 which is a population increase of approximately 4.5%.

The community is predominantly white, with 57.5% of the population aligning with that demographic. As shown in figure 2.3.1 below, there is a significant contingent of Hispanic residents as well, which comprise 22.2% of the population.

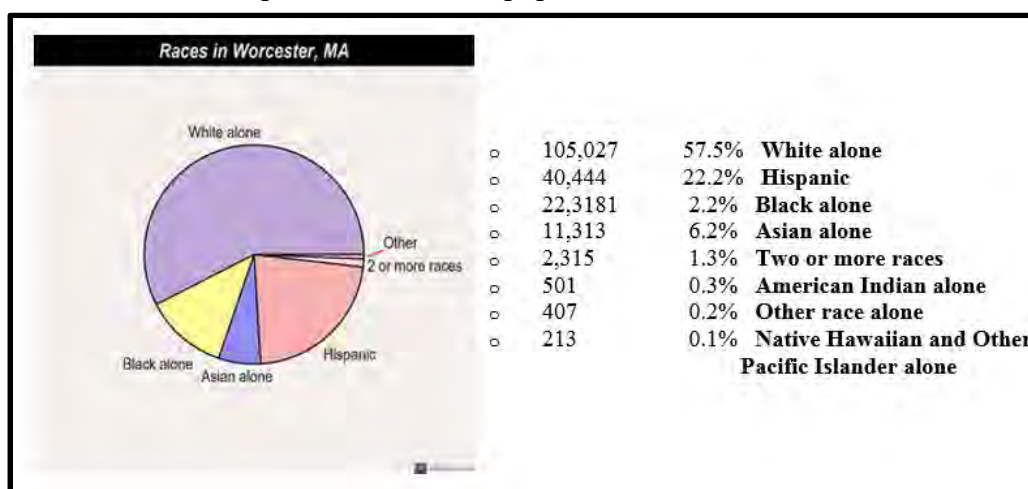


Figure 2.3.1 Race Demographics in Worcester

Source: City of Worcester

<http://www.city-data.com/city/Worcester-Massachusetts.html#ixzz3wxWXxx00>

53% of the population identifies as religious as shown in figure 2.3.2, with the majority identifying as Catholics.

Religions of Worcester	
Percent Religious The percentage of the population that affiliates with a religion.	53.06%
Catholic Percentage The percentage of the population that affiliates with the Catholic Church.	37.53%
Baptist Percentage The percentage of the population that affiliates with the Baptist Faith.	1.47%
Lutheran Percentage The percentage of the population that affiliates with the Lutheran Faith.	1.00%
Methodist Percentage The percentage of the population that affiliates with the Methodist Faith.	0.86%
Other Christian Percentage The percentage of the population that affiliates with a Christian Faith not listed.	6.92%
Jewish Percentage The percentage of the population that affiliates with the Jewish Faith.	2.24%
Islam Percentage The percentage of the population that affiliates with the Islam Faith.	0.91%

Figure 2.3.2 Religious Demographics in Worcester
Source: City-Stats.Org

<http://city-stats.org/ma/worcester/religion/worcester-religion-statistics>

According to the Central Massachusetts Regional Planning Commission, the City of Worcester population is projected to increase by approximately 3.5% over the next 25 years. Presuming Worcester follows this projection, the population would be 187,200 in 2030, representing the foreseeable future population of the city.

The average national mortality rate is approximately 0.9% of the general population. Using this recorded mortality rate, it is estimated that the average annual number of deaths that occur in the City of Worcester will be approximately 1,650 per year and rise to approximately 1,700 per year in the next 25 years. Of the 1,650 persons per year approximately 1,325 will seek burial space.

Annual interment data and sales of lots were provided to BSC Group by Hope Cemetery from the year 2009 to 2015 and are shown in table 2.3.1 below. Over the last six years, the data has shown that the cemetery averages 253 burials per year, and they sell 100 graves per year. The average burials per year have been fairly consistent, with a low 241 burials in 2009 and a high of 266 in 2013. The sale of lots has increased consistently since 2009, where the cemetery had 76 sales to 2015 where there were 144 sales. The data has also shown a steady decline in the number of monument foundations, where there was a high in 2009 of 115 to a low of 60 in 2014. The decline in the number of monuments sold is inversely related to the number of flat markers that have been sold since 2009. The data shows that there has been a constant increase in the number of flat markers being sold.


Hope Cemetery Annual Interments						
Project No.	23267.00					
Subject	Annual Interments					
Location	Hope Cemetery Worcester, Massachusetts					
Fiscal Year	# of Burials	# of Lot Sales	# of Chapel Events	# of Mon Foundations	# of Gov't Markers	# of Flat Markers
2009	241	76	51	115	72	24
2010	245	78	21	53	24	56
2011	242	82	0	47	17	39
2012	263	101	4	45	18	60
2013	266	110	2	73	27	35
2014	251	107	2	60	16	50
2015	261	144	1	61	14	56
Yearly Average	253	100	12	65	27	46

Table 2.3.1 Hope Cemetery Annual Interments from 2009 to 2015

Note” Chapel Events in 2009 and 2010 were mostly church rental activities (not services)

The above interment rate summary indicates approximately 260 interments per year indicating that the cemetery is providing for approximately 20% of the population that dies within its corporate boundaries. This is somewhat below the typical municipal market share of 30% but it is likely that Hope Cemetery is impacted by the large Catholic and other cemeteries surrounding the property.

The current trend line shown in figure 2.3.3 below adds approximately three interments per year. With an estimated increase of 3.5% of the total population in the next 25 years, the number of burial services per year is expected to follow the upward trend and can be expected to rise with the increase in population.

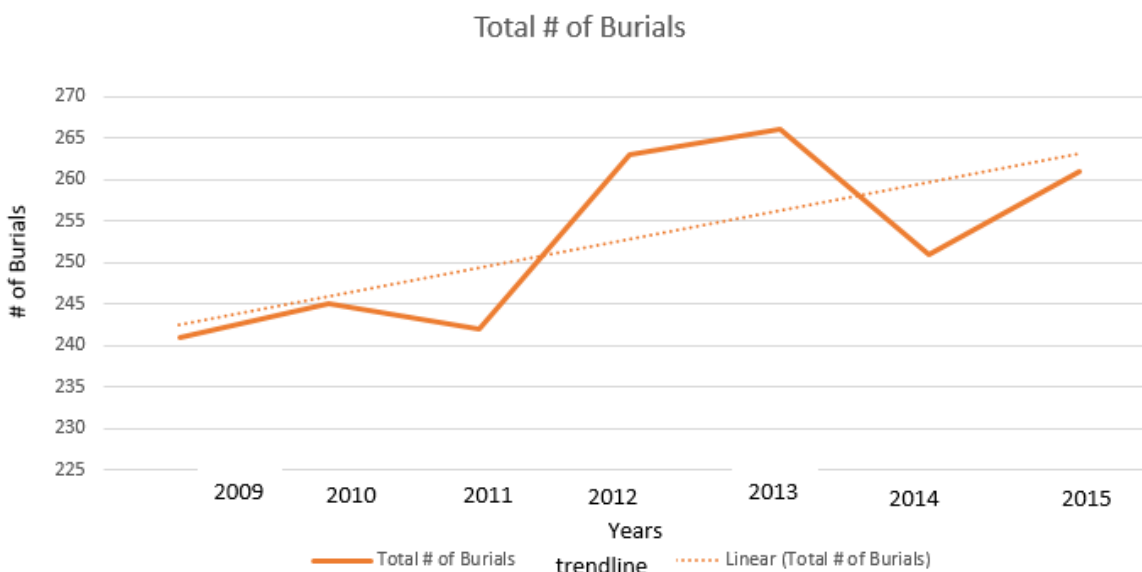


Figure 2.3.3 Total Number of Burials from 2009 to 2015

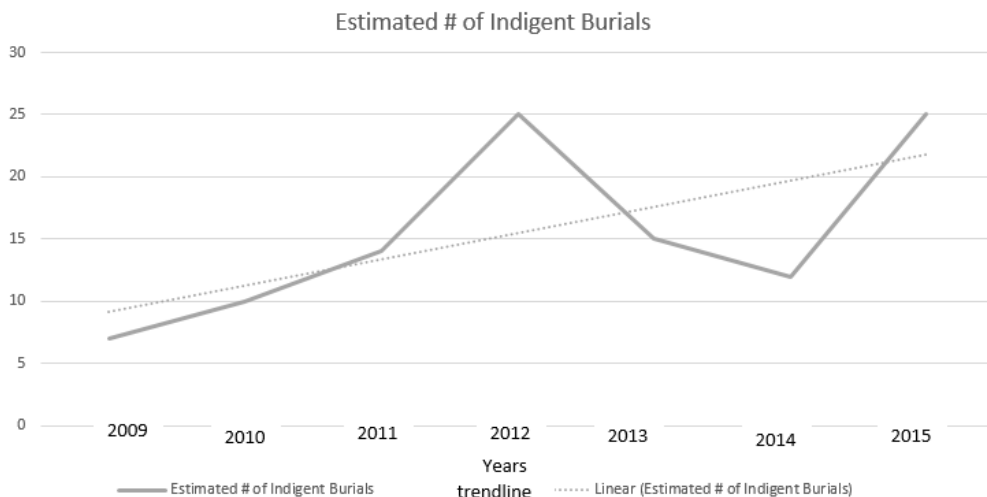
INDIGENT BURIAL RATE

The percentage of indigent burials, shown in Table 2.3.2 below is considered significant within Hope Cemetery.

Fiscal Year	Total # of Burials	Recorded # of Indigent Burials	% Indigent
2009	241	7	2.9%
2010	245	10	4.1%
2011	242	14	5.8%
2012	263	25	9.5%
2013	266	15	5.6%
2014	251	12	4.8%
2015	261	25	9.6%
Yearly Average	253	15	6.1%

Table 2.3.2 Percentage of Indigent Burials

Plotting this information reveals a trend line over the last six years (see figure 2.3.4 below) with indigent burials rising from 7 to an average of 15 per year. This represents about a 100% increase over that timeframe. Whereas indigent burials represent nearly 20% of the graves and consume significant land area with minimal financial return, consideration may be warranted to install double depth lawn crypts for indigent interments to effectively double the capacity of an area. The cemetery would maintain all licenses for double depth interment burials. Under this scenario, families purchasing burial rights / memorial rights after an indigent burial may result in two markers on a grave, or if rights are purchased after an indigent burial, removal of the interred may be warranted to another section in order to gain the right to place a memorial.



Plot of Indigent Burials 2009- 2015 with Trend Line
Figure 2.3.4 Estimated Number of Indigent Burials

2.4) ANNUAL LOT SALES RATE

Over the last five years, lot sales, excluding indigent lots, currently average approximately 110 lots per year and rise at a rate of approximately 8 to 10 per year (See table 2.4.1 Below).

Fiscal Year	# of Burials	# of Lot Sales
2009	241	76
2010	245	78
2011	242	82
2012	263	101
2013	266	110
2014	251	107
2015	261	144
Yearly Average	253	100

Table 2.4.1 Lots Sold from 2009 to 2015

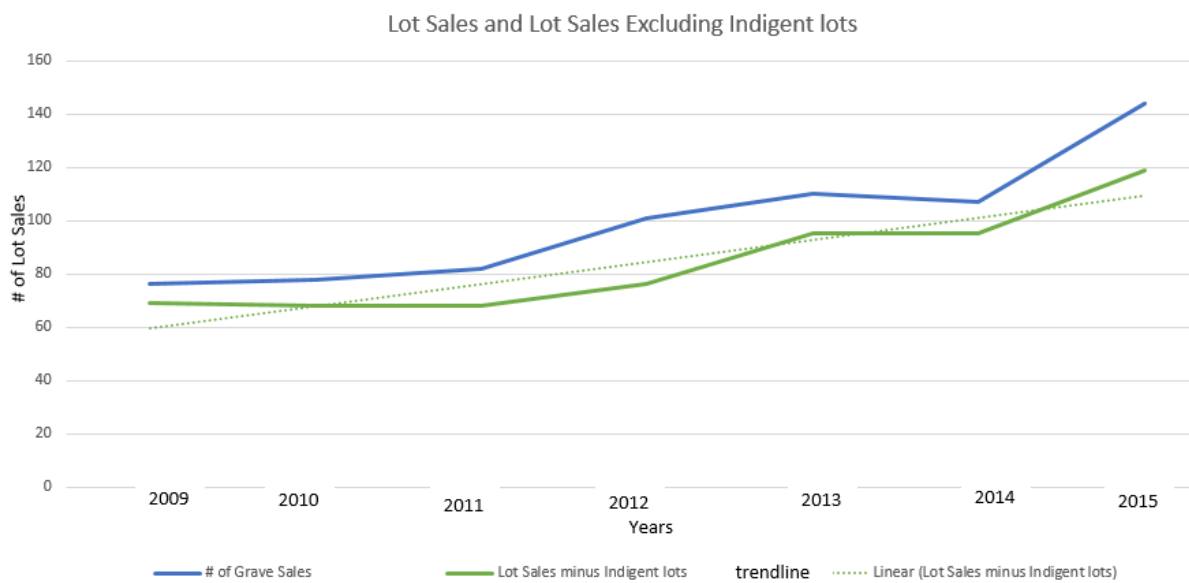


Figure 2.4.1 Plot Interments from 2009 to 2015

2.5) CREMATION INTERMENT RATE

In 2015, CANA (Cremation Association of North America) reported that 43% percent of the deaths in Massachusetts are cremated. (See table 2.5.1 below) By 2019 CANA predicts the Massachusetts cremation rate will be just shy of 50%. (See Appendix F)

State	2013 % Cremations	2014 % Cremations	2019* % Cremations
Massachusetts	41.7%	43.1%	49.5%

Table 2.5.1 Estimated Cremation Rates

*2019 Cremation rates are estimated predictions

Presuming that grave space and cremation space remains available through cemetery improvements and that the cemetery operates in a similar market share to other Massachusetts cemeteries (i.e. 30%-40% market share), the cemetery can expect approximately 250 to 300 interment services per year for the near future with approximately 60 percent being full casket and 40 percent being cremation interments. (This is based on a recent BSC study that concluded that 60% of those persons cremated are memorialized at a cemetery. As such, 40 percent of the 50 percent cremated, do not consume grave space, resulting in the 60/40 percentage noted above.)

It is expected that 50% of the services will be full casket and 50% will be cremation by 2019.

Major trends affecting cremation are:

- Cremation has become more accepted
- Environmental considerations are becoming more important
- Ties to tradition are becoming weaker
- Religious restrictions diminishing

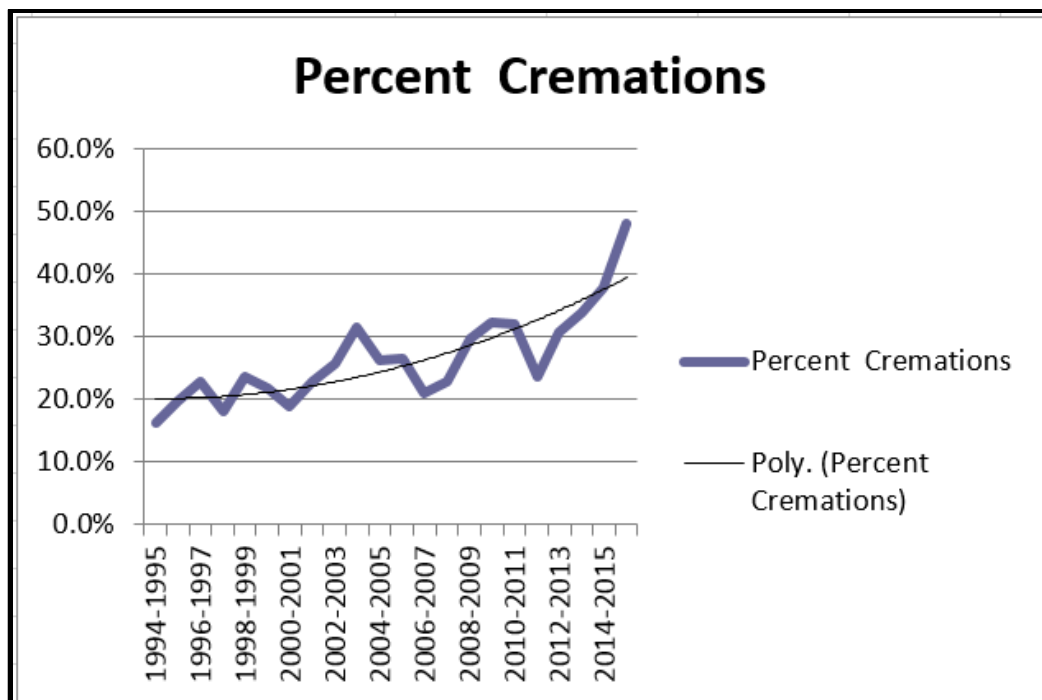


Figure 2.5.1 Typical Cremation Data (Percentage)

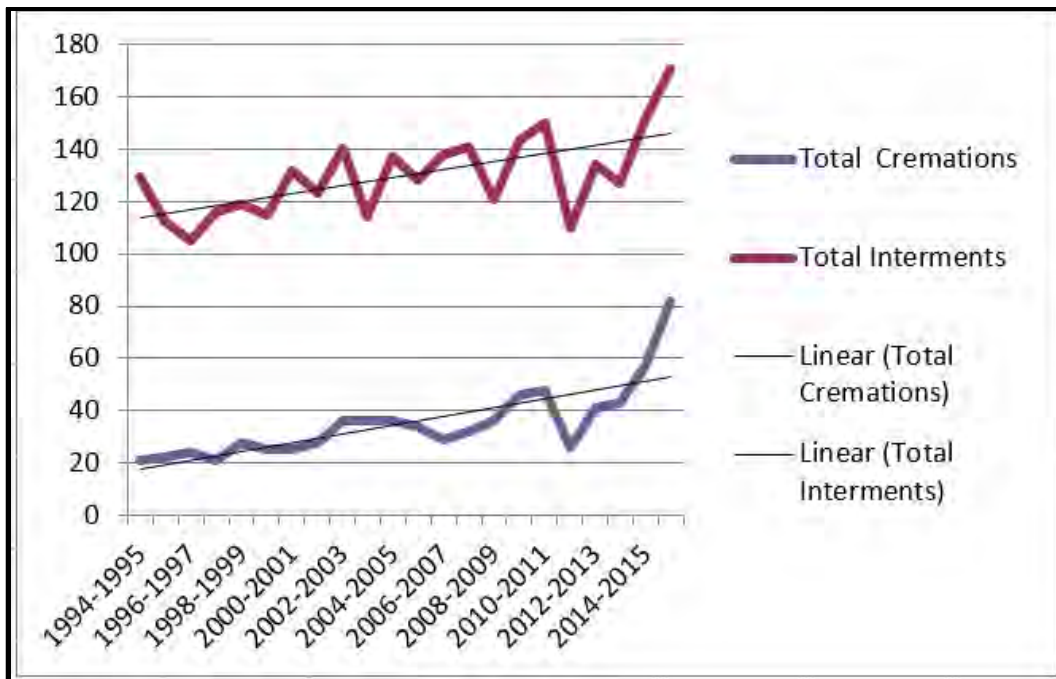


Figure 2.5.2 Typical Cremation Data (Totals)

The above referenced annual cremation data (see figures 2.5.1 & 2.5.2) taken from other regional Cemeteries from 1994-2015 shows that there has been a significant increase in the number of cremations. It can be anticipated that the industry will follow this trend and there will be an increasing number of cremations in the future.

2.6) BURIAL OPTIONS FOR CREMATED REMAINS

There are essentially three burial options for cremated remains: (see figures 2.6.1 & 2.6.2)

- Interment in the ground with a flat marker or stone monument for memorialization
- Inurnment in a niche wall
- Inurnment in columbaria



Figure 2.6.1 Typical Columbaria



Figure 2.6.2 Typical Niche Wall

2.7) FEE STRUCTURE

The Rules and Regulations state that all lots are sold by the square footage area. Prices (see the current fee schedule for 2015 in Appendix G) are noted to vary per grave depending on memorial rights (upright traditional or flush markers). It is suggested that the reference to per square foot be omitted on the Rules and Regulations.

No fee for installation of foundations for monument or setting of markers is listed. It is not clear if the lot sale prices include this cost.

Bulk sales are not allowed and are not recommend to be completed at Hope Cemetery.

Fees for interments and services should be modified based on the cost to fee analysis in Section 2.2. Based on that analysis, grave opening charges should be on the order of \$1,300, as opposed

to the \$900 currently charged. Being a municipal operation that provides services to its residents, a lower multiplier may be used.

A draft fee structure (without pricing values) is included Appendix K. This draft includes grouping prices together for casket burials, assisted burials, cremation burials, and adds a cost line for monument foundation installation and marker setting.

2.8) PERPETUAL CARE FUNDS

“Perpetual Care” is defined in the Cemeteries’ Rules and Regulations as routine general care of lots and cemetery ground: cutting of grass at reasonable intervals and maintaining lots, grounds, walk, roadways, boundaries and structures. This service is provided indefinitely. “Perpetual Care” is not defined as, and does not include, the maintenance, repair or replacement of gravestones, markers etc., planting of flowers or ornamental plants, or the reconstruction of any marble, granite, bronze or concrete work on any section or lot of any portion or portions in the cemetery.

Massachusetts General Laws, Chapter 114, “Cemeteries and Burials” have sections within the law that pertains to the establishment of Perpetual Care fund accounts. If these funds are collected, the law requires that of Perpetual Care as follows “an arrangement made by the cemetery whereby restricted funds (principal) are set aside, the income of which is used to help maintain the cemetery indefinitely.”

“A Consumer Guide” published by the Massachusetts Cemetery Association, has a section on cemetery-related fees that discuss Perpetual Care. *“Perpetual Care Funds are a portion of money from the purchase of interment space which is placed in a restricted trust account whereby only the interest income can be used for cemetery operations, care, and maintenance.”*

The City of Worcester has a Perpetual Care program for Hope Cemetery. The City places proceeds from the sale of each grave 40% of the sale price into Perpetual Care trust funds. This means for a single marker grave that sells at \$900.00, \$360.00 goes to the PC fund which has a restricted principal. Based on the average 95 graves sold each year, the principal balance of the Perpetual Care Funds would increase \$34,200. (It is noted that placing 40% of sales into the Perpetual Care Fund is the average amount deposited at other municipal cemeteries within the Commonwealth.)

Based on limited available financial information, it is understood from that the PC fund principal and interest balance is \$3,994,500.

2.9 RULES AND REGULATIONS AND FORMS

Draft boiler plate rules and regulations have been drafted and meetings with staff and Commission have occurred to discuss the site-specific intricacies of such regulations.

A current draft of the recommended rules and regulations are included in Appendix J.

Forms have been drafted to coordinate with the Rules and Regulations. They can be found in in Appendix K include:

License of Burial

Acknowledgment of Receipt of Hope Cemetery Rules and Regulations

Application to Purchase Burial Rights for Prior Assisted Burial

Interment Authorization Form

Cemetery Price List

Specifications and Requirements for Monuments and Markers

Application for Foundation, Monument or Marker

2.10 CEMETERY SOFTWARE

The cemetery currently uses HMIS cemetery software but does not have the map module. This well-known supplier is still in business and providing continued service.

Other suppliers include Pontem, CMIS, Cemsites, Web Cemeteries and similar companies that produce and maintain software. Specification or procurement of such software improvements is beyond the scope of this report.

SECTION 3.0 – DATA COMPILATION AND REGULATORY ASSESSMENT

3.1) COMPILATION OF EXISTING CONDITIONS BASE PLAN

The mapping prepared for the master plan was compiled from a variety of sources and does not represent a “true survey”. There were no field measurements taken in preparation of the plans. It is expected to be accurate to a few feet in most instances, as edges of pavement were obtained from MA GIS or digitized from plans obtained from the City of Worcester and Hope Cemetery. The existing grave layouts within various sections of the cemetery were digitized from existing record maps and photographs obtained from Hope Cemetery. An existing conditions base plan was compiled for the cemetery site using compiled GIS information, existing base plan maps and compiled plans obtained from Worcester DPW and Hope Cemetery. MA Oliver GIS was used to download the location of wetland boundaries, buffer zone lines and flood plain elevations. Topography was compiled from Worcester GIS and is on the coordinate system datum NAD 1983 at 2-foot contour intervals. The compiled map prepared for the master plan can serve as a foundation for conceptual planning and design.

Based upon a site walk performed on November 30, 2015 and a thorough review of the GIS information record mapping available, BSC has assembled a compiled plan of the cemetery. This plan has resulted in the identification of several areas of remaining space that can be utilized for future full casket burials, cremation interment and cremation inurnment in either niche walls or columbaria.

Some of this mapping has been supplemented with individual grave layouts as warranted to assist in the master planning of adjacent areas.

3.2) POSSIBLE CEMETERY EXPANSION AREAS

Based on the evaluation of the site there are approximately 28 acres of land in this area are suitable for cemetery expansion.

Each of these areas is described in detail in section 4.0. In a general sense they are shown on the plan on the following page (see figure 3.2.1).

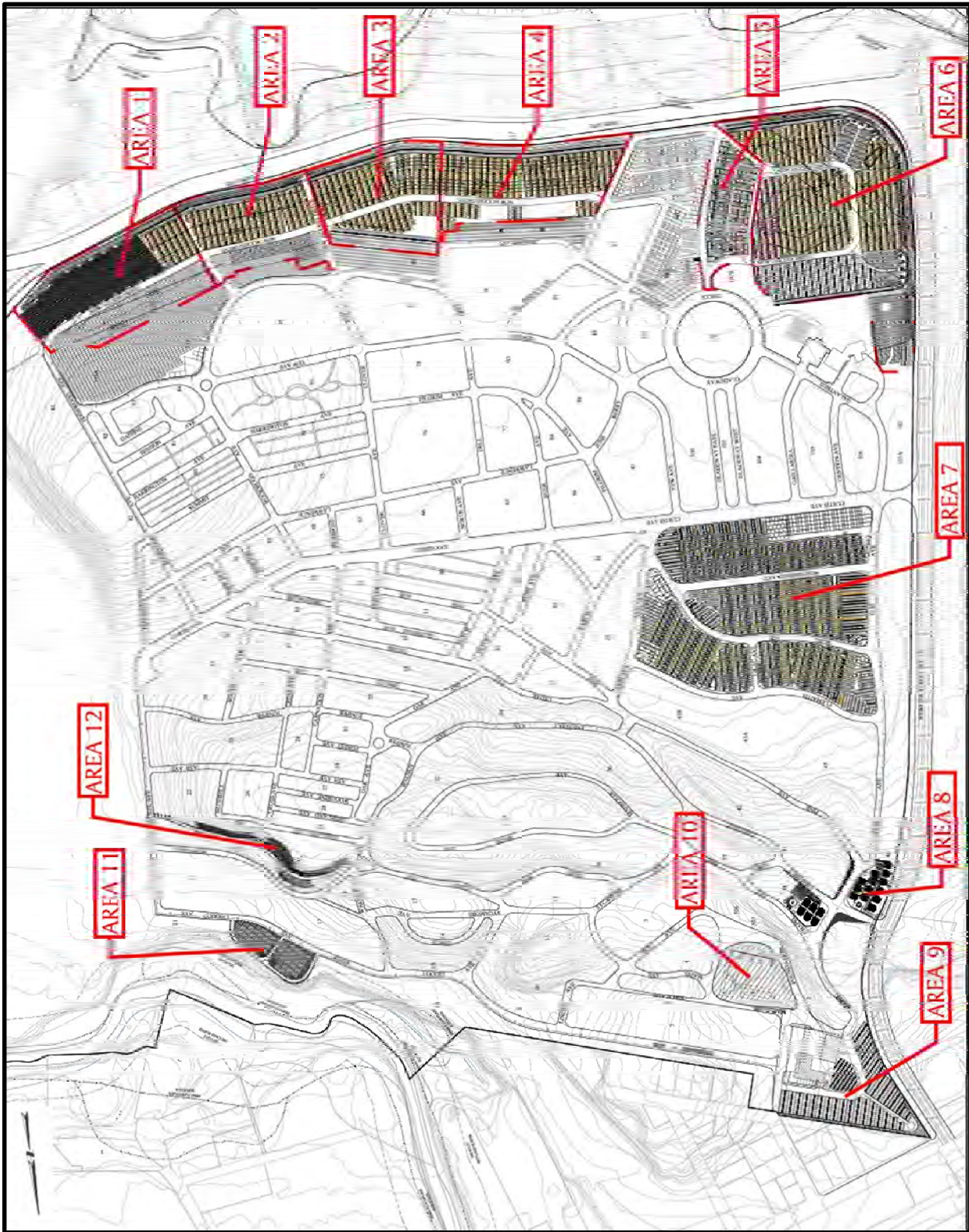


Figure 3.2.1 Plan of Available Land

3.3) SOIL TEST PITS

Soil test pits were completed on December 30, 2015 to observe soil conditions and estimate the seasonal high groundwater. NRCS soil data was researched prior to conducting test pits and the soil on site was found to be classified as loose sandy glaciofluvial deposits characterized by loose loamy sand with trace silt and clay. This material is considered well-suited for cemetery purposes, as they are readily excavated and maintain nearly vertical excavation walls. No groundwater was encountered in any of the test pits. Test pit logs are included in Appendix C. Test pits were performed primarily along the southern perimeter of the site adjacent to Hope Ave. (see figure 3.3.1)

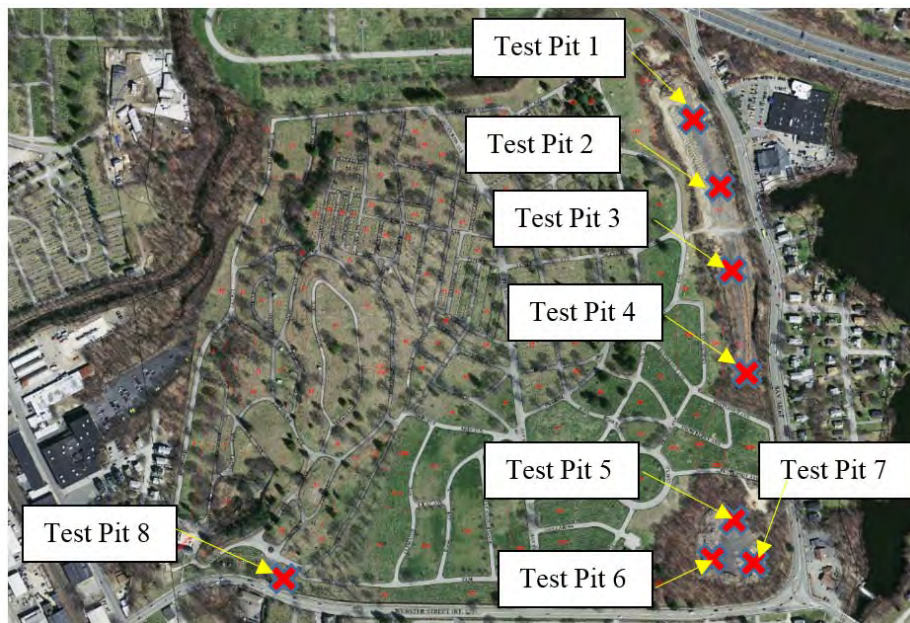


Figure 3.3.1 Test Pit Location Map

3.4) REGULATORY CONTROLS

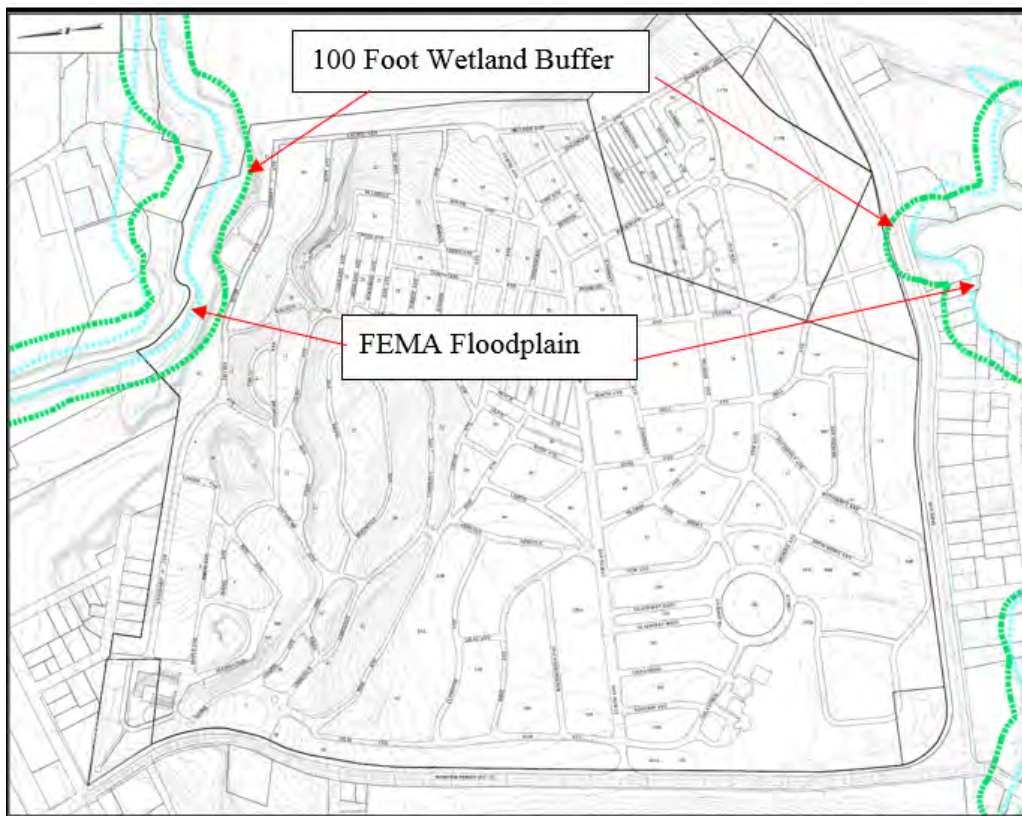


Figure 3.4.1 Regulatory Control Map

Through the compilation of GIS FEMA and wetland information, the floodplain and the 100-foot wetland buffer were depicted on the site plans. As shown in figure 3.4.1, there is flood plain and wetland buffer along the Northern and Southern perimeter of the site. The floodplain and 100-foot buffer on the Northern section of the site are associated with the existing perennial stream, Mill Brook, that runs east to west. The edges of the buffer and floodplain at this area are located at the bottom of an existing hillside, outside of the expansion that BSC has proposed and included in this Master Plan. Along the Southern perimeter, there is a portion of the site that falls within the 100-foot wetland buffer. The wetland buffer is associated with the adjacent Leesville Pond.

3.5) IMPLICATION OF NATIONAL HISTORIC REGISTER LISTING

Hope Cemetery was added to the National Historic Register in 1997 ID # 97001560.

A copy of the Historic Register application is included in appendix D. It identifies several walls, tombs and other site features as being significant.

“The National Register is an authoritative guide to be used by Federal, State and local governments, private groups and citizens to identify the Nations cultural resources and to indicate what properties should be considered for protection from destruction or impairment.”
Renovation or demolition of the existing barn would involve coordination with the City of Worcester, the Massachusetts Historical Commission and the Department of Interior.

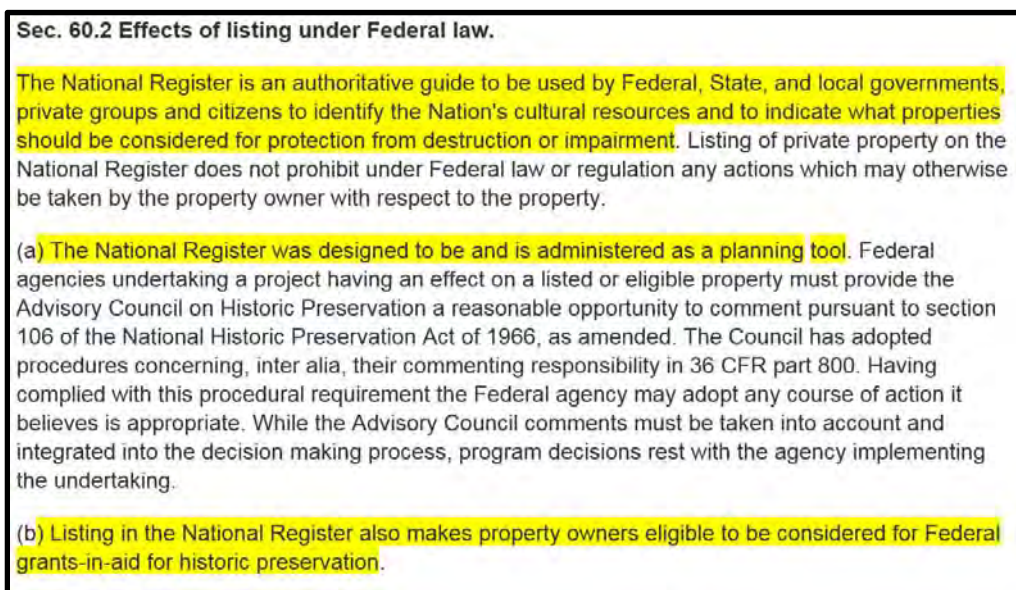


Figure 3.5.1 National Register of Historic Places Section 60.2

SECTION 4.0 – MASTER PLAN AND REPORT

4.1 CONCEPTUAL SITE IMPROVEMENTS OPTIONS

4.1.1) MAINTENANCE BARN IMPROVEMENTS

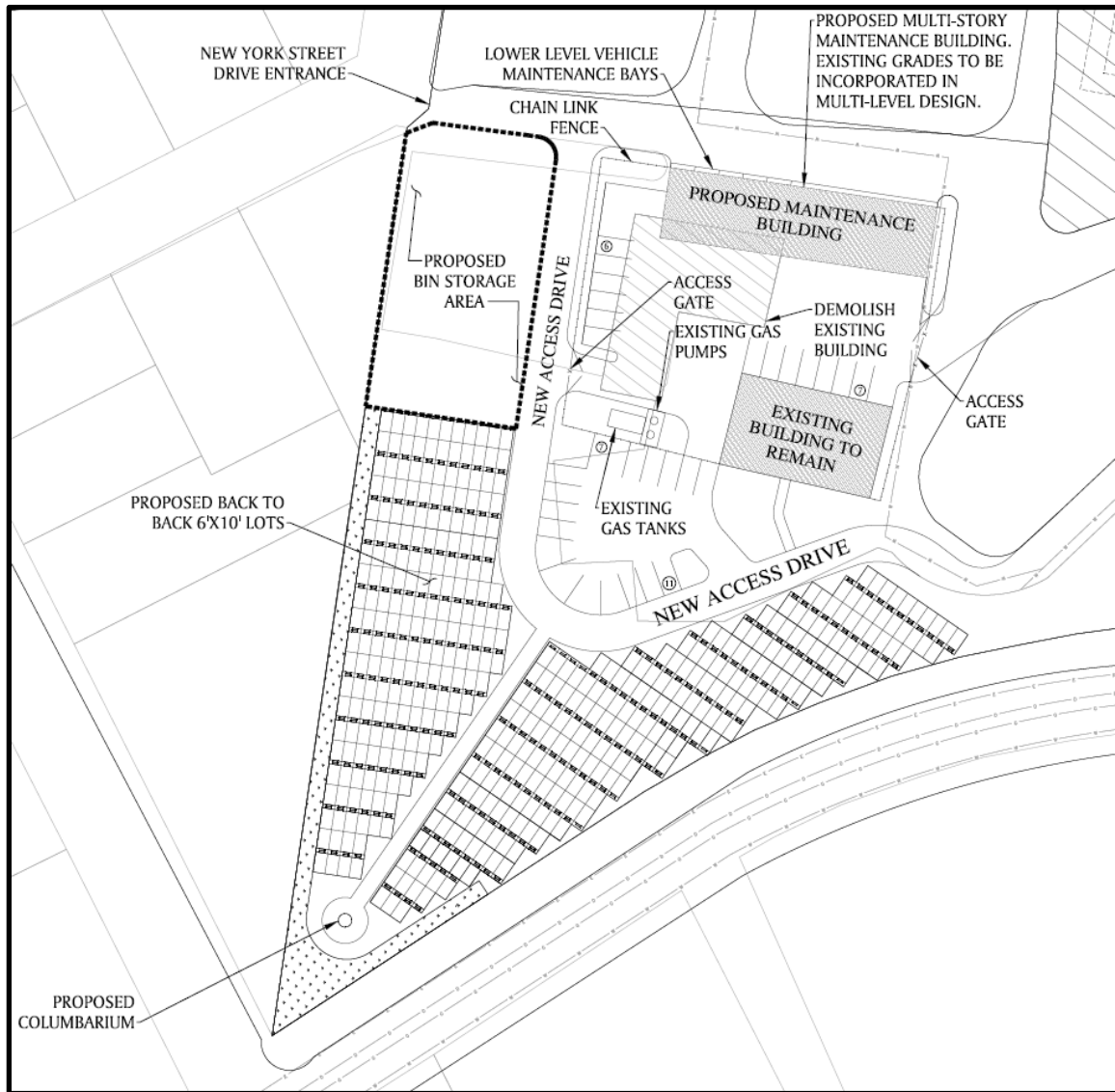


Figure 4.1.1.1 Schematic Layout of Maintenance Area

The maintenance barn area at the northwest corner of the site was evaluated for improvements and upgrades to the existing facilities. Currently there are two buildings at this location that are being utilized by the cemetery staff. The barn building is currently being used to house maintenance equipment and store miscellaneous items for the cemetery staff (see figure 4.1.1.2). This building is in disrepair and needs significant rehabilitation. BSC is recommending that this building be demolished and a new maintenance multi-story building, comparable in size and square footage, be built in its place. The new building would have a lower story level for vehicle maintenance bays and an upper story level and would continue to serve as equipment storage, but could also be utilized as a vehicle maintenance facility with vehicle bays located along the lower level drive entrance. There is a second existing building in this area that is currently being utilized as office and amenity space for the cemetery employees on the top floor, with vehicle maintenance bays on the ground level (see figure 4.1.1.3). This building is recommended to remain as it is functioning as usable space for cemetery employees and for vehicle maintenance.

Additional improvements to the maintenance barn area include the design of a new access drive that extends around the perimeter of the maintenance area. The new access drive extends from the entrance to Maple Street and will facilitate vehicular flow to and from the maintenance barn area. Currently there is a steep driveway along Maple Street that directs vehicles to the lower section of the barn area. One option that was considered was to remove this section of steep, deteriorated driveway, and direct the flow of vehicles along the new access drive. Surrounding this area will be a chain link fence with two access gates to the facilities. An additional 31 painted parking spaces are also proposed at this location for the use of maintenance staff.



Figure 4.1.1.2 Wood Frame Equipment Garage Figure 4.1.1.3 Grounds / Mechanic Garage

4.1.2) STAGING AREA

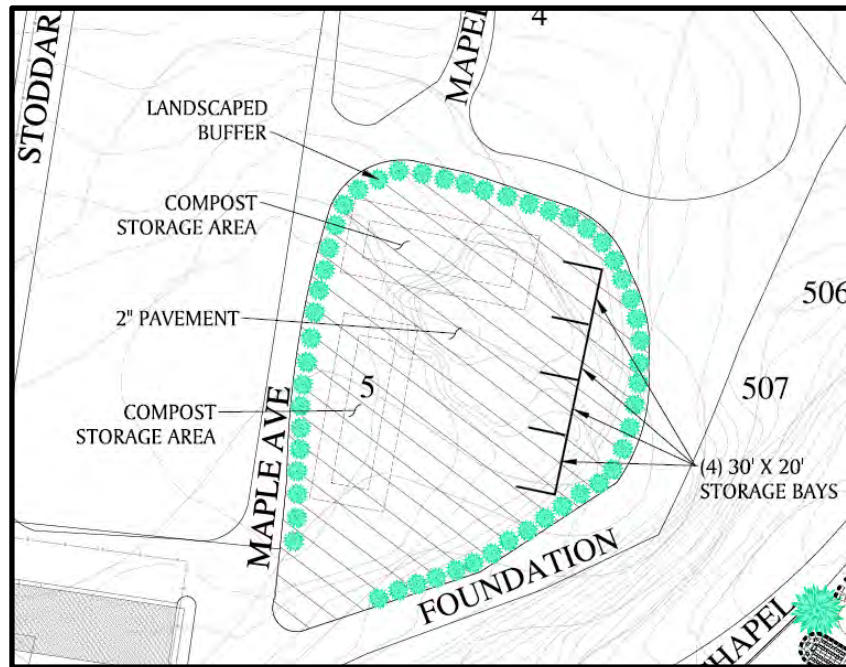


Figure 4.1.2.1 Plan View of Storage Area Improvements Adjacent to Maintenance Barn

The staging area is a level, low area adjacent to the equipment barn (see figure 4.1.2.1). It can readily be used for composting, storage of gravel, bark mulch and similar materials used in the maintenance of the cemetery and empty grave boxes. It is important to keep this facility near the equipment garage. Additional landscaping and fencing may be warranted to screen the activity from the surrounding gravesites.

4.1.3) WALLS



Figure 4.1.3.1 Wall and Fence Section at Northwest Corner



Figure 4.1.3.2 Stone Wall Along Webster Street



Figure 4.1.3.3 Stone Wall Along Chestnut Drive



Figure 4.1.3.4 Stone Wall and Crypts Adjacent to Barn Area

There are stone wall features throughout the Cemetery that have multiple purposes and provide enhanced aesthetics which give the Cemetery character. (See figures 4.1.3.1 – 4.1.3.4)

- 1) There is a stone wall that extends along the perimeter from the Southwest corner of the Cemetery to the Northwest corner along Webster Street. This is a field stone and mortar wall and is generally in good condition. This wall does not need any immediate improvements in BSC's opinion. (See figure 4.1.3.5)



Figure 4.1.3.5 Walls on Webster Street

- 2) There are also two interior stone walls within the site. There is a field stone gravity retaining wall along Chestnut Drive, which is generally in good condition but could be further evaluated for improvements. There is also a granite block gravity retaining wall located on Foundation Drive, adjacent to the existing maintenance barn facility, that is generally characterized to be in good condition. (See figure 4.1.3.6)



Figure 4.1.3.6 Interior Walls

4.1.4) FENCES

There are two types of fences that run along the perimeter of the cemetery and have been classified into three general categories of good, fair and poor condition based on a site walk performed by BSC Group, Inc. in April of 2016.

- There is wrought iron fence that runs along the Northern perimeter of the site and has been characterized to be in poor condition. This section has a large portion of the fence that has collapsed and is need of extensive rehabilitation and or replacement. (See figure 4.1.4.4)
- The other section of wrought iron fence is at the Northwest corner of the site and has also been identified as a section that is in poor condition and in need of rehabilitation or replacement (See figure 4.1.4.1).
- There is chain link fence that runs along the perimeter of the site from the Northeast corner to the Southwest corner adjacent to the main entrance, as well as a section of chain link fence along the northern perimeter. The chain link fence is generally categorized to be in good or fair condition. One option to evaluate would be to replace the chain link fence along Hope Ave with new wrought iron fence to increase the aesthetics along the heavily traveled way. (See figure 4.1.4.2)

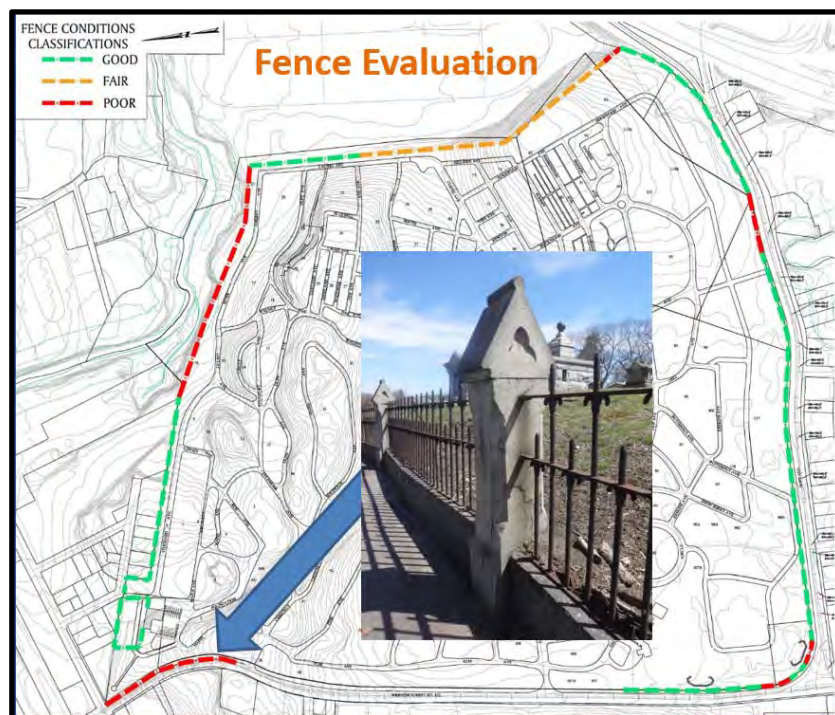


Figure 4.1.4.1 Fence at the North-West Corner

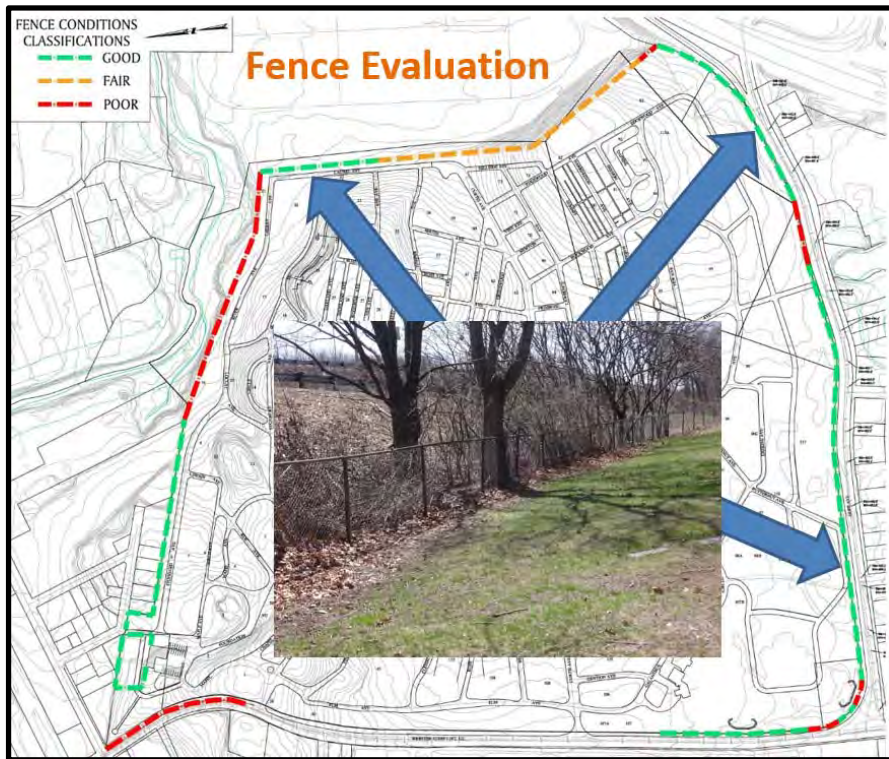


Figure 4.1.4.2 Chain Link Fences along the East and South Perimeter

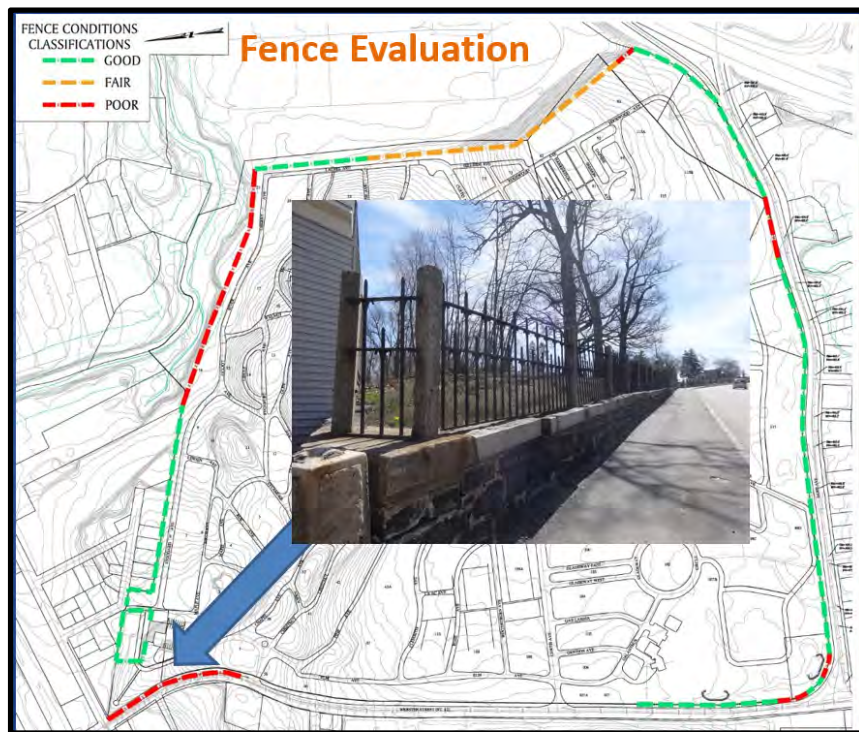


Figure 4.1.4.3 Fence along Webster Street

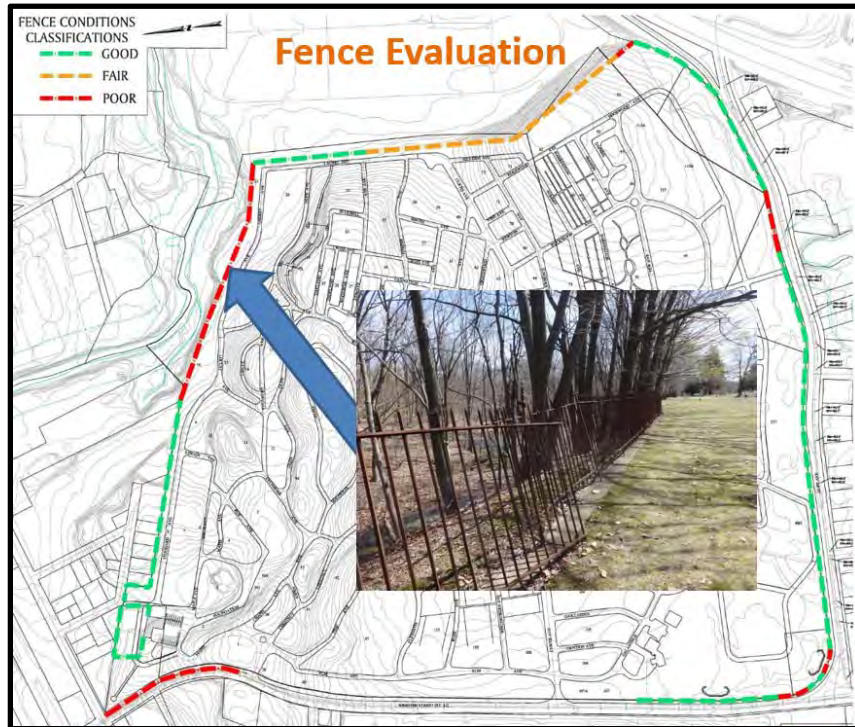


Figure 4.1.4.4 Wrought Iron Fence Along Northern Perimeter

4.1.5) DRIVEWAYS

To address the conditions of the existing driveways on-site, a site inspection was performed on February 4 and February 18, 2016 and the driveways were classified as either being in good condition, fair condition or poor condition. (See figure 4.1.5.1) Conditions are defined as follows:

- **Good Condition:** Pavement is a smooth, flat continuous surface free of pot holes, heaving or cracking.
- **Fair Condition:** Pavement is generally smooth and free of pot holes and significant cracking. Minor alligator cracking could potentially be present as well as minor pot holes and heaving. The driveway can be driven with little disturbance to comfort of driving.
- **Poor Condition:** Pavement has deteriorated significantly and there is an abundance of large cracks, pot holes and heaving. Driveway should be placed on a high priority to be repaired.

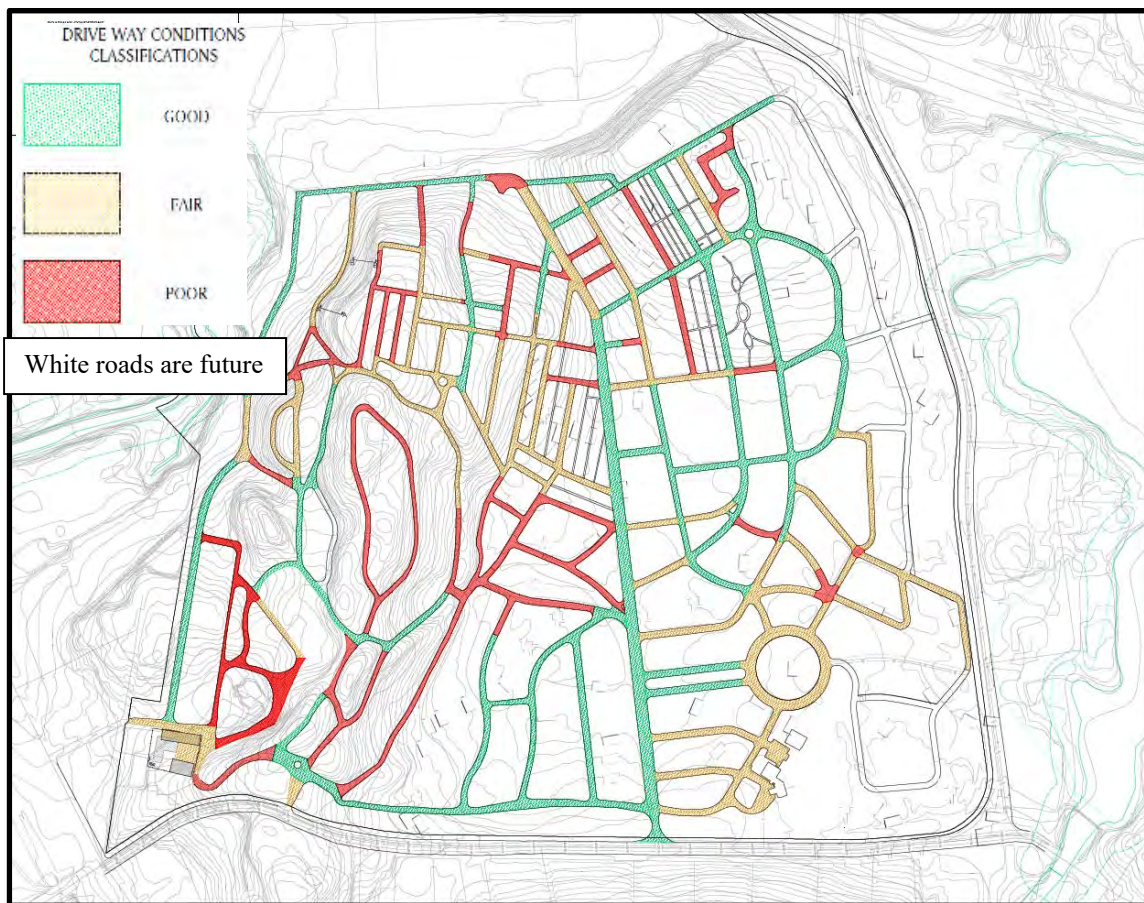


Figure 4.5.1 Driveway Conditions Plan

	Area (Square Feet)	Square Yards	Percentage of Total (%)
Good Condition	482506	53612	45
Fair Condition	342308	38034	32
Poor Condition	252397	28044	23
Total	1,077,211	119690	

Table 4.1.5.1 Driveway Conditions Inventory Table

In total, 45% of the driveways are classified to be in good condition, 32% are in fair condition and 23% are in poor condition and that are recommended that the driveways in poor condition, that are traveled most, be placed on high priority to be repaired. (See table 4.1.5.1) Driveways that are not actively utilized, but that are classified to be in poor condition, should be evaluated as potential roads that could be removed and converted into grave space. This should be coordinated by the cemetery or consultants.

4.1.6) DOUBLE DEPTH INTERMENT AREAS

Based on the soil test pits, the cemetery is a candidate for use of double depth interments. This will represent a change from the traditional procedure for grave excavation and should only be exercised in areas that have not previously used double-depth grave sites. The reason for this is that excavating significantly below prior adjacent burial may result in soil collapse and potential disturbance of previous burials. It also represents an increased safety risk to the staff performing the work.

If double depth graves are pursued, it is recommended that all initial burials be placed at the double depth to avoid the concerns stated above.



Figure 4.1.6.1 Regular Depth Burial (Single)



Figure 4.1.6.2 Double Depth Burial

For ease of reference in location of the various areas, figure 3.2.1 is duplicated below as an Overall Site Key Plan

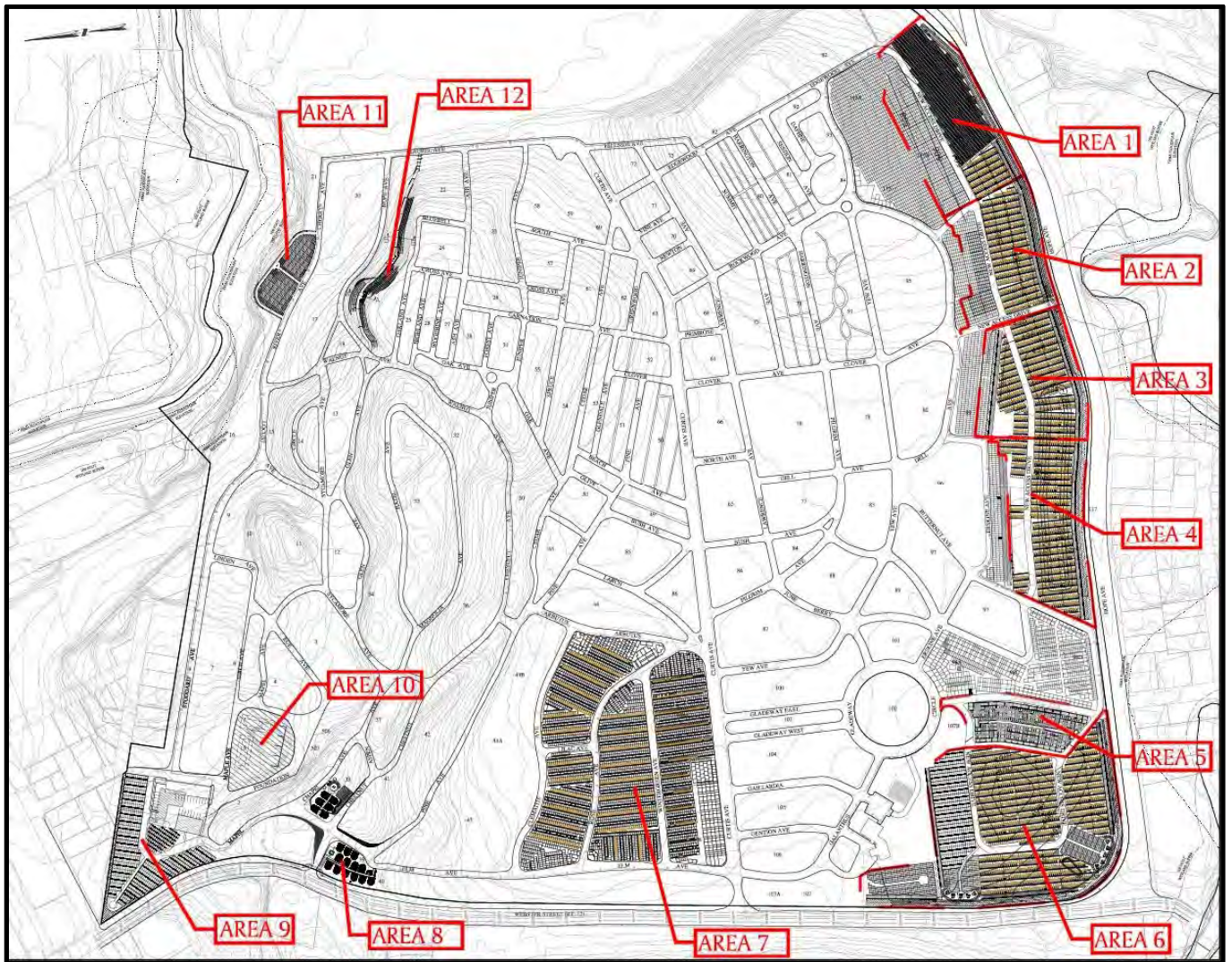


Figure 4.1.6.3 Overall Site Key Plan

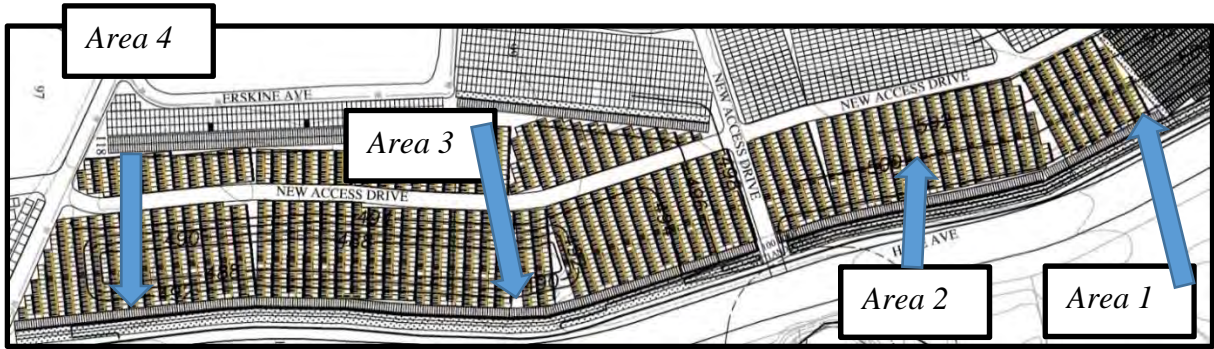


Figure 4.1.6.4 Areas 2, 3 & 4 Potential for Double Depth Burials

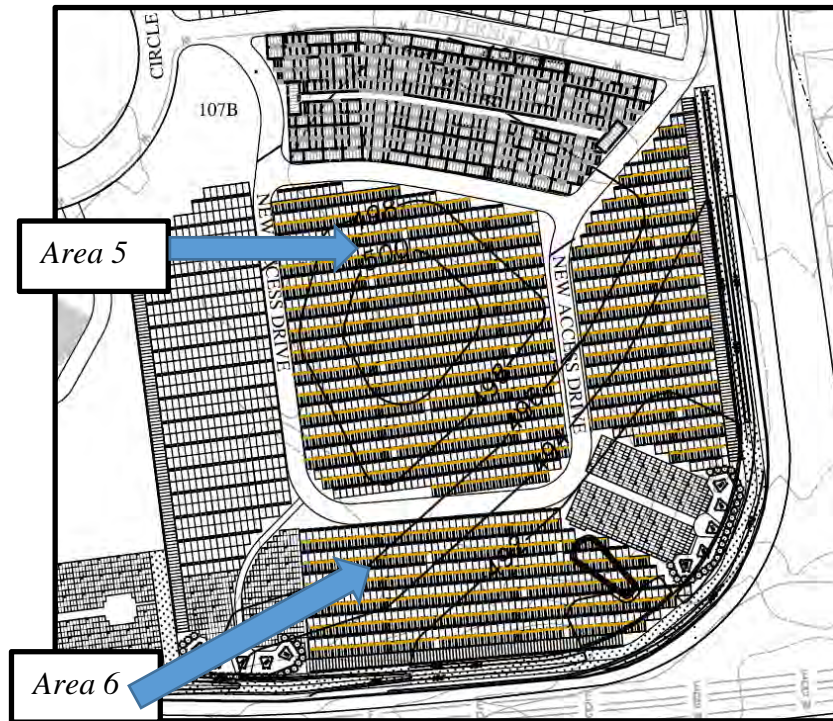


Figure 4.1.6.5 Areas 5 & 6 Potential for Double Depth Burials

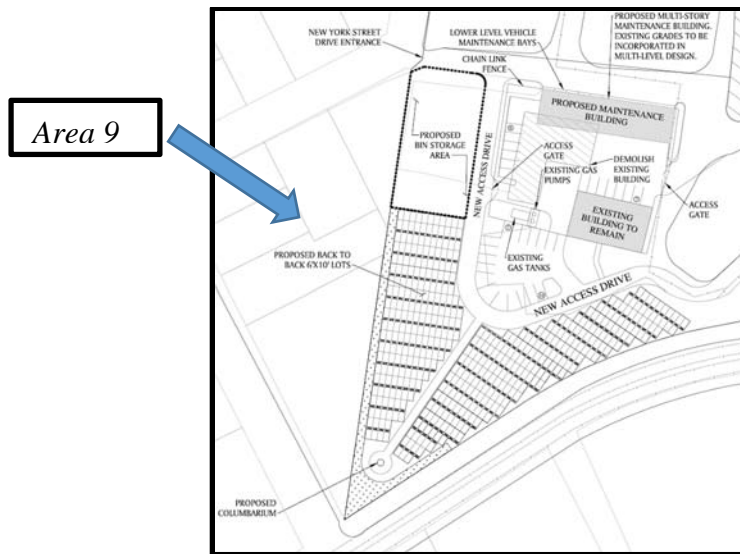


Figure 4.1.6.6 Area 9 Potential for Double Depth Burials

4.1.7) AREA 7: SECTION 108, 109, 110 AND 111

Sections 108, 109, 110, 111 were evaluated based on current sales. These sections constitute a large, relatively flat area within the Cemetery (See figure 4.1.7.1). These areas have numerous open grave spaces and visually does not seem to be as full as other sections of the Cemetery. These sections were developed roughly 20 years ago and concern was expressed that these lots were not selling at an appropriate rate. However, when the annual lot sales for these sections over the past 20 years were compared to the lot sales of surrounding cemeteries, the annual sales in sections 108, 109, 110 and 111 were found to be similar. The proposed lot layouts for these sections and the additional landscaping and vegetation will improve the aesthetics of this area and will help to blend these sections in with the surrounding landscapes of the Cemetery.



Figure 4.1.7.1 Proposed Lot Layout Sections 108,109,110,111

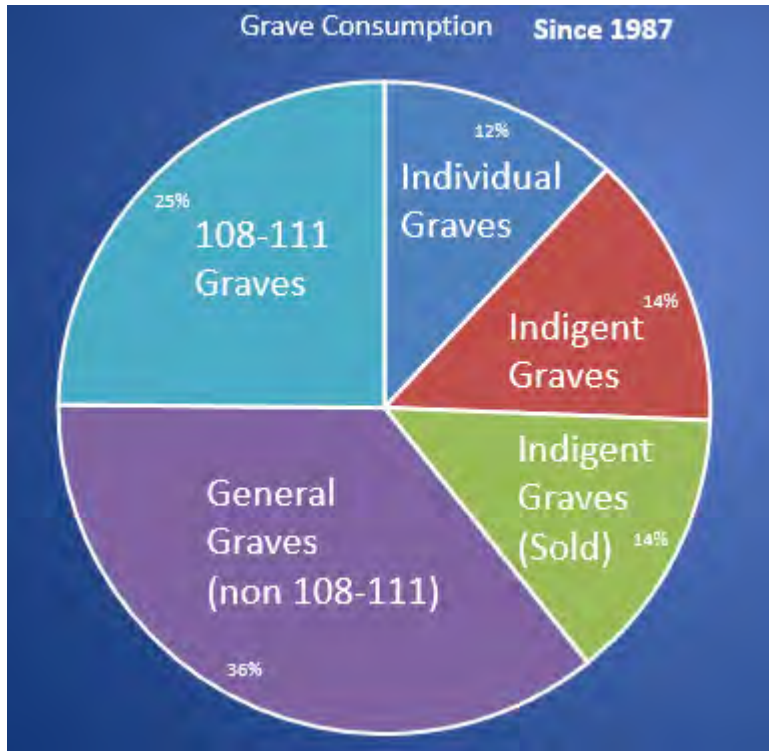


Figure 4.1.7.2 Grave Consumption Statistics

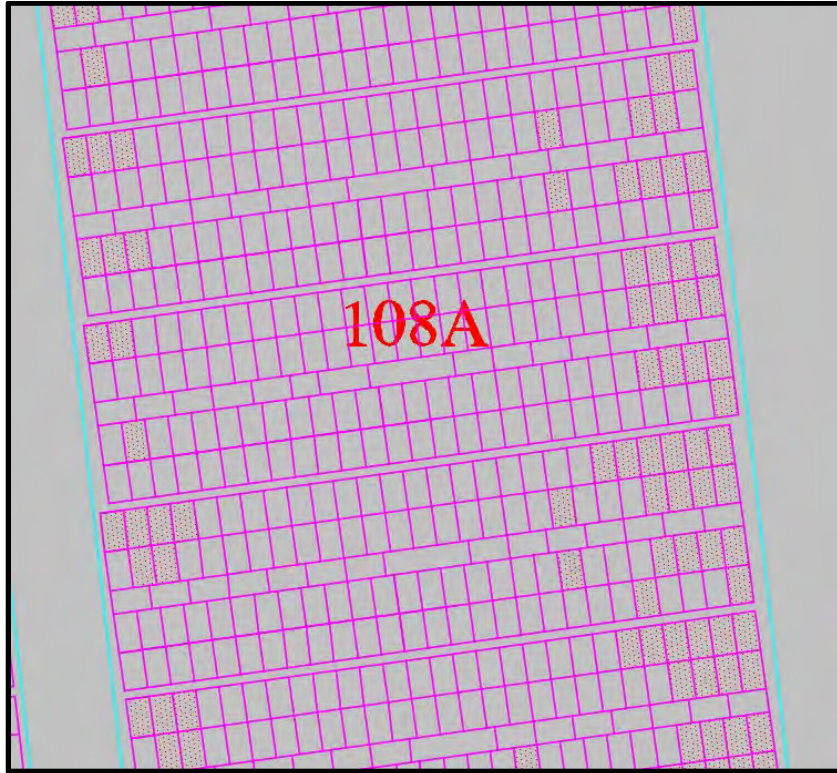
Review of the above tabulation reveals that approximately 25% of the graves sold since 1987 have occurred in sections 108 -111 (See figure 4.1.7.2). Single graves, including indigent graves and indigent graves that were subsequently sold account for approximately 40% of the graves sold. Approximately 35% have been sold in other sections of the cemetery including the Orthodox section. Although lot sales in sections 108-11 may not have been as strong as other sections, total lot sales in sections 108-111 have constituted for a considerable percentage of sales since 1987.

BSC has evaluated the graves sold in this area and the potential to modify the grave layout to avoid potential tree damage and enhance the appearance of this area by planting additional trees (See figure 4.1.7.3 & 4.1.7.4).

The concept is to preserve the majority of the graves laid out and sacrifice (not sell) those that were laid out perpendicular to the drives for additional trees. Gravestones placed within 6 feet of the large trees within these rows may be restricted to flush markers to avoid potential for tree roots to tip or damage upright markers.

The conversion of some of the rows to flush memorials only, will allow memorials to be installed in a back to back fashion and in close proximity to an adjacent memorial such that inscriptions may be readily made on both sides of the memorials. Based on the percentage of flush marker lots sold within the cemetery, this concept is consistent with the historic percentage of sales of multiple grave and single grave lots.

This layout will allow for approximately 20 feet of clearance between each row of upright memorials, which will provide for readily maintainable and accessible graves.



4.1.7.3 Existing Lot Layout for Section 108A

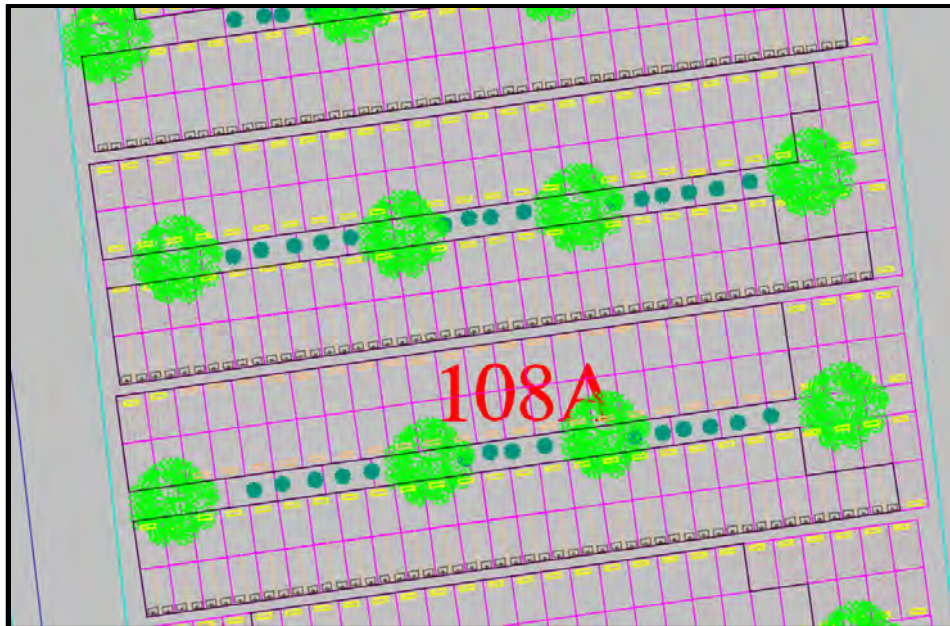


Figure 4.1.7.4 Proposed Layout for Section 108A

Existing graves will be able to remain in place with this proposed modification. The proposed modifications include changes to lot layout and additional landscaping and vegetation.

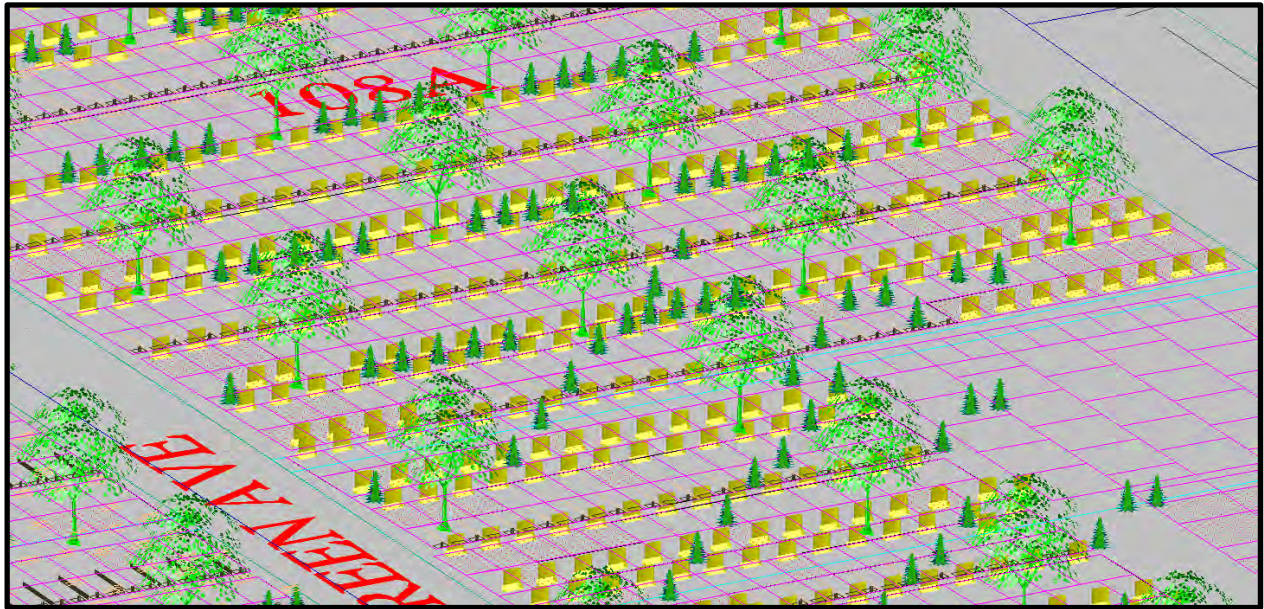


Figure 4.1.7.5 3D View of Section 108A with Potential Modified Memorials and Planting

4.1.8) EXPANSION AREAS 11 AND 12 CREMATION GARDEN AREAS

There are numerous proposed cremation gardens throughout the Cemetery. The cremation gardens could utilize a number of features including niche walls, columbaria, flat markers and upright headstones with landscaping and walkways. These gardens can add to the overall character and aesthetics of the cemetery while also providing additional capacity for inurnments and interments, all the while creating pleasant areas where people may visit.

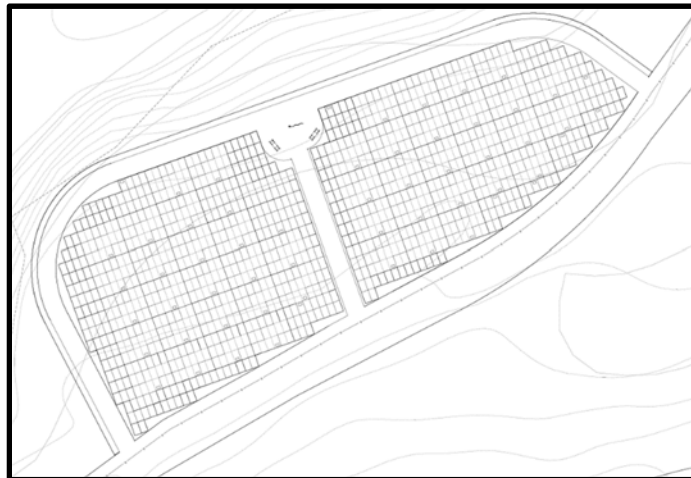


Figure 4.1.8.1 Plan View Area 11 Expansion

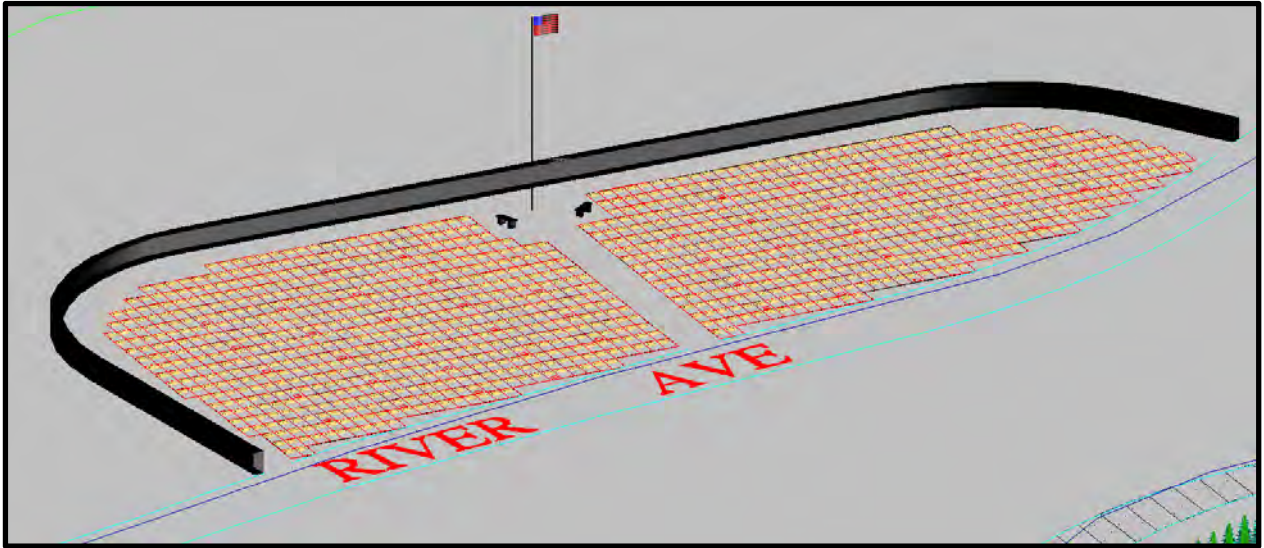


Figure 4.1.8.2 3D View Area 11 Expansion

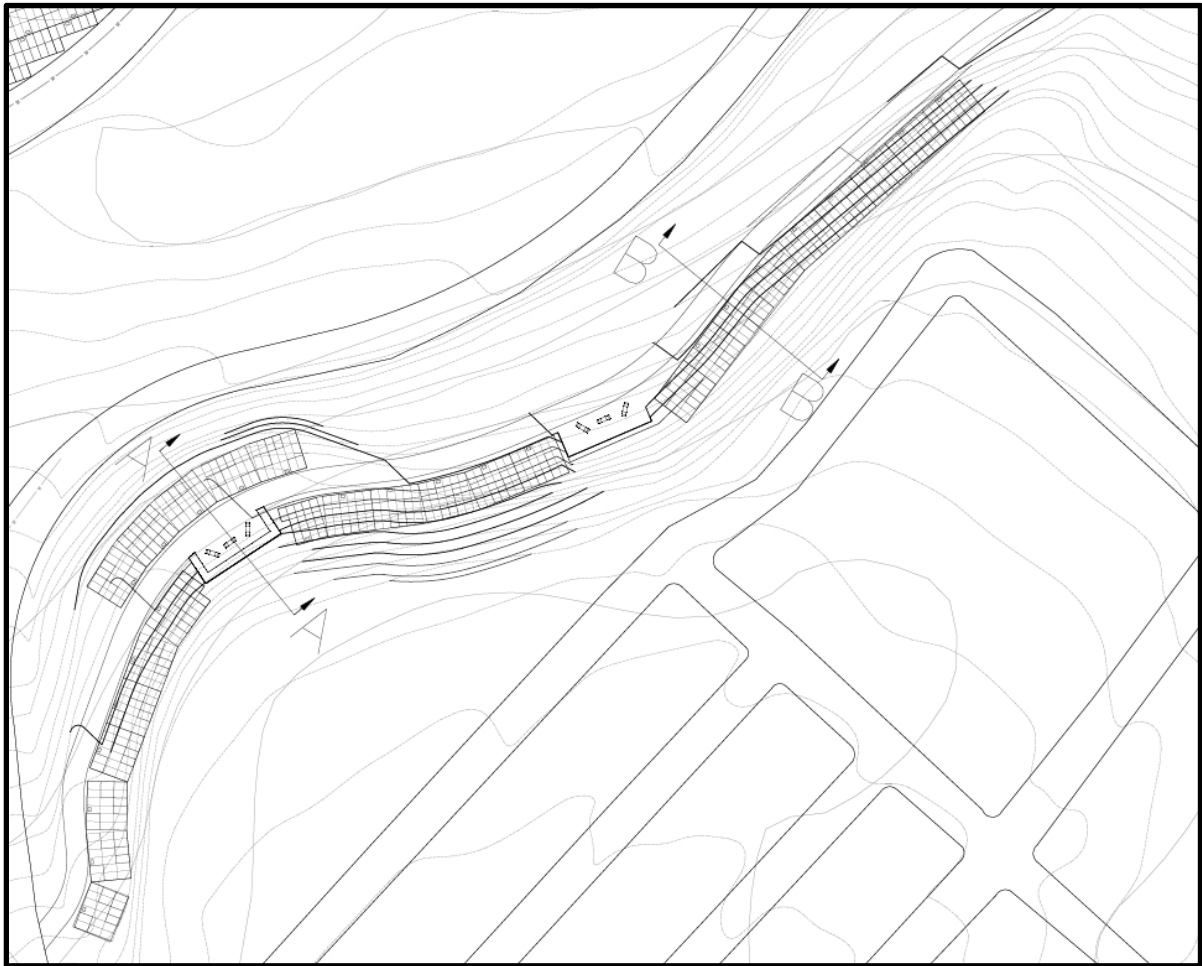


Figure 4.1.8.3 Plan View Area 12 Expansion

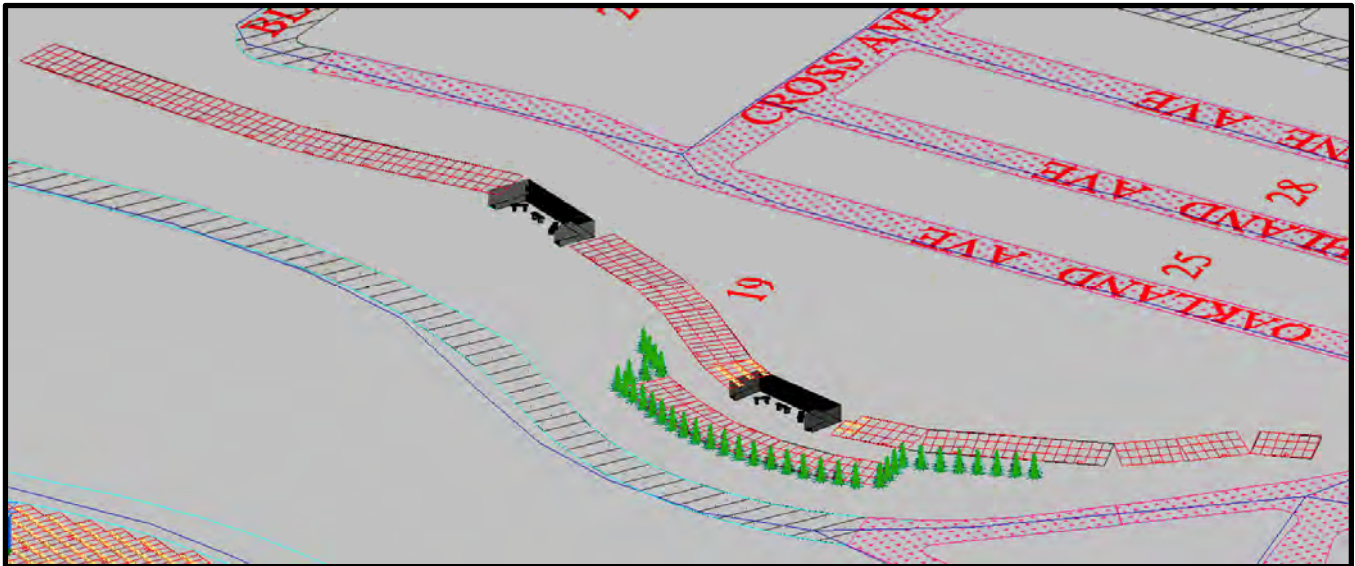


Figure 4.1.8.4 3D View Area 12 Expansion

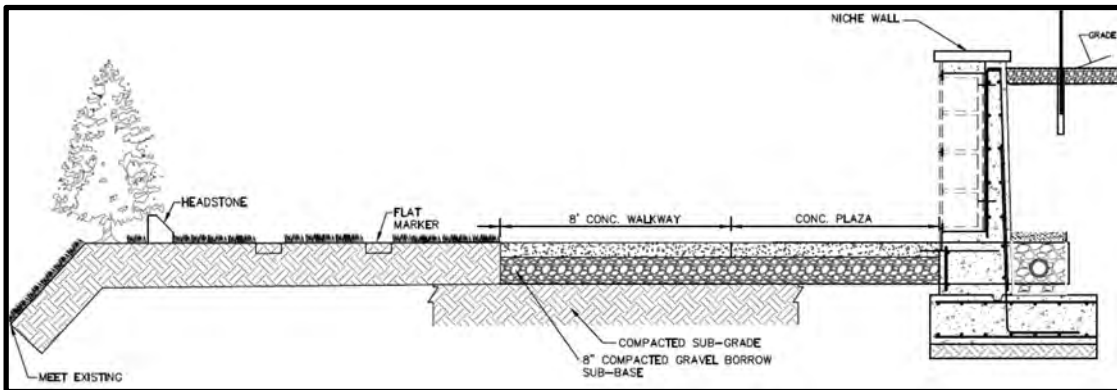


Figure 4.1.8.5 Area 12 Expansion Cross Section A-A

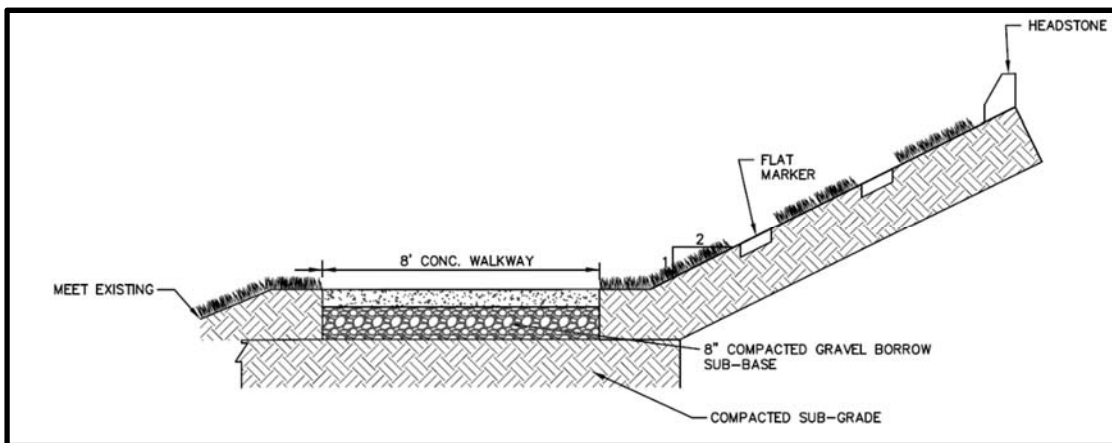


Figure 4.1.8.6 Area 12 Expansion Cross Section B-B

NorthEast Corner (Area 11)		
Grave Type	Area (Sq. Feet)	# of Graves / (Sq Ft / Grave)
Single Grave (3'x11') 1 Foot Bar Foundation	0	0
Back to Back (6'x10') 2 Foot Bar Foundation	0	0
Cremation Niche (3'x5') (6'x10') Flat Markers	18,028	1202
Totals	18,028	1202

Table 4.1.8.1 Expansion Area 11 Capacity

Proposed Walkway (Area 12)		
Grave Type	Area (Sq. Feet)	# of Graves / (Sq Ft / Grave)
Single Grave (3'x11') 1 Foot Bar Foundation	0	0
Back to Back (6'x10') 2 Foot Bar Foundation	0	0
Cremation Niche (3'x5') (6'x10') Flat Markers	6,413	428
Totals	6,413	428

Table 4.1.8.2 Expansion Area 12 Capacity

Area 11 and area 12 proposed walkways utilize cremation niches for interment and niche walls for inurnment. These sections are currently open-grassed and wooded space that have the potential to create thoughtfully crafted and landscaped cremation gardens. The combined areas have the capacity of approx. 1,600 cremation interments as well as inurnments in cremation niche walls. (See tables 4.1.8.1 & 4.1.8.2)

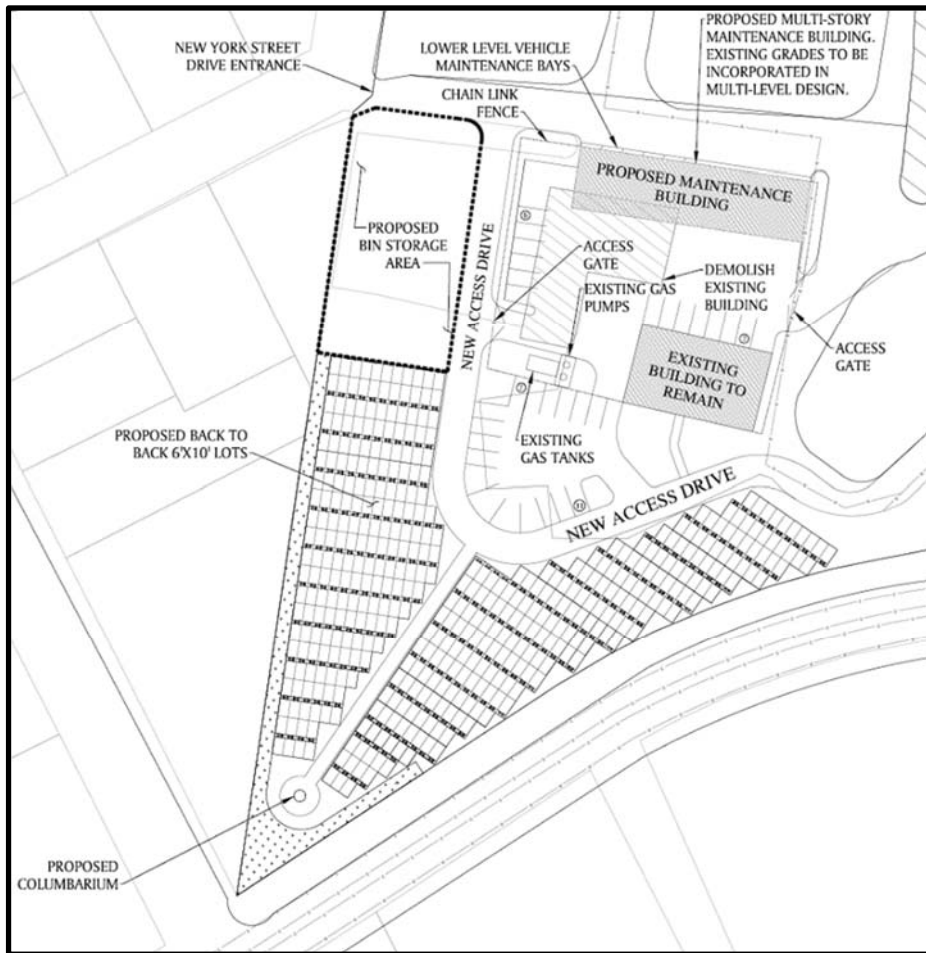


Figure 4.1.8.7 Plan View Area 9 Expansion

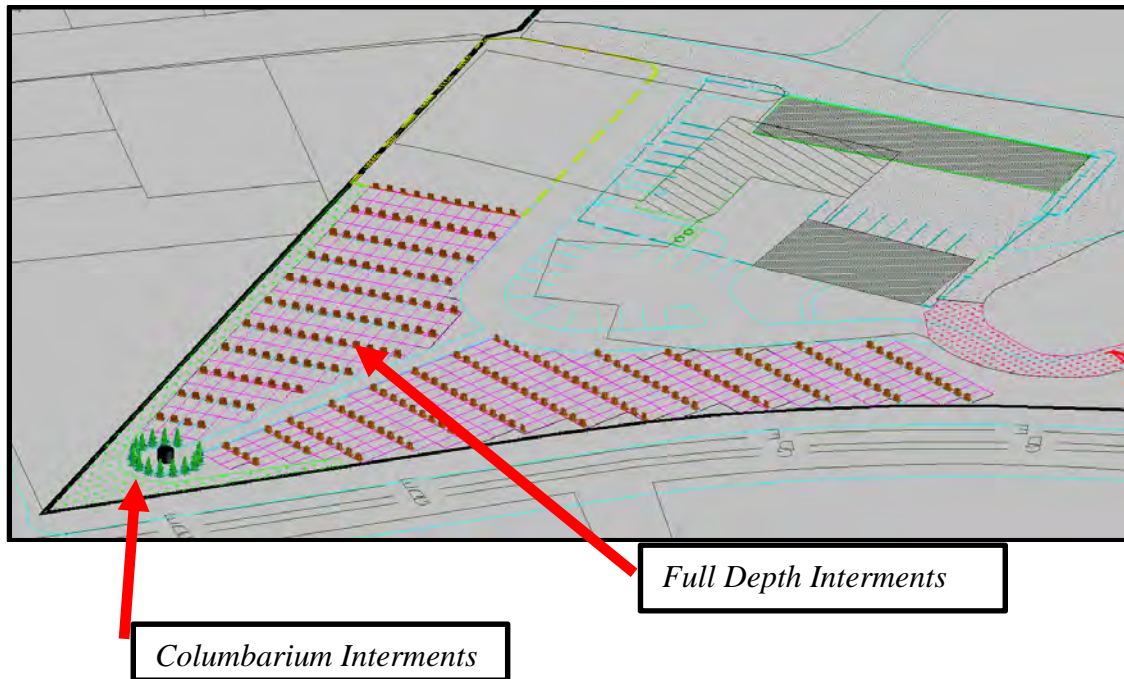


Figure 4.1.8.8 3D View Area 9 Expansion

Area at Maintenance Buildings (Area 9)		
Grave Type	Area (Sq. Feet)	# of Graves
Single Grave (6'x10') 1 Foot Bar Foundation	0	0
Back to Back (6'x10') 2 Foot Bar Foundation	29,370	890
Cremation Niche (3'x5') (6'x10') Flat Markers	0	0
Totals	29,370	890

Table 4.1.8.3 Expansion Area 9 Capacity

The open area adjacent to the maintenance buildings has also been evaluated as a potential location for additional graves, as well as a new drive, and a walkway to a small cremation garden with columbaria. This section has the potential to yield approximately 900 additional graves for full casket burials. The columbaria would provide additional capacity for cremation inurnment. (See table 4.1.8.3)



Nixon Gates

Figure 4.1.8.9 Plan View Area 8 Expansion

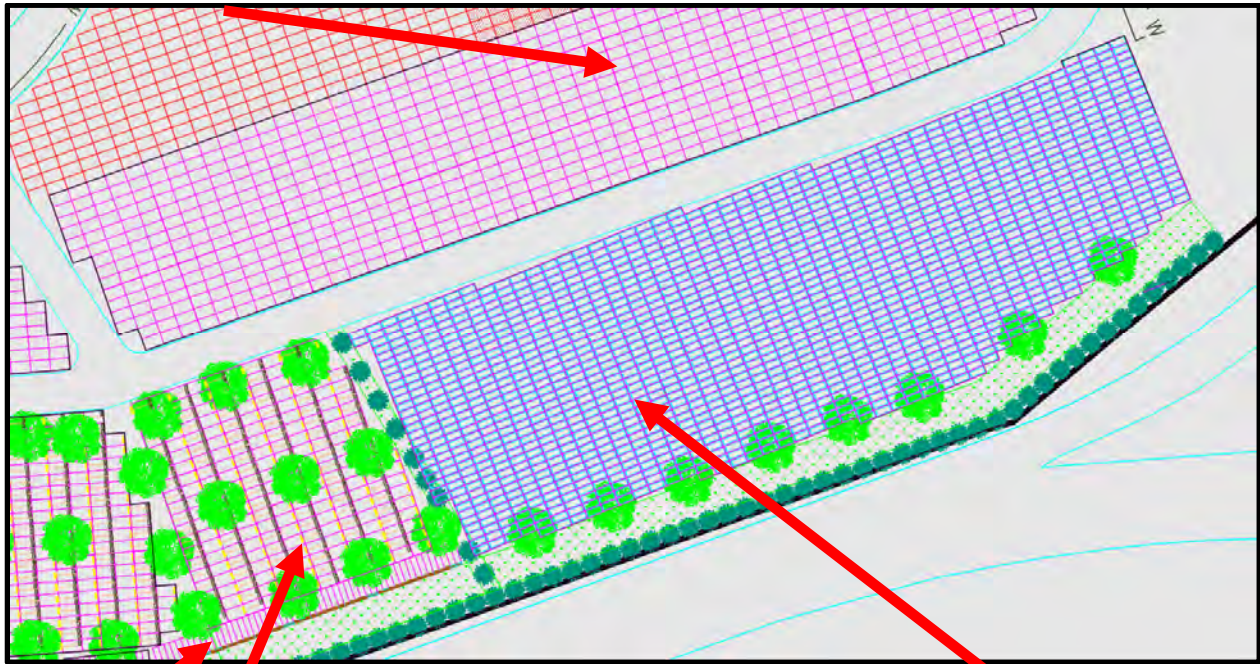
Area 8 Expansion

Front Cremation Garden (Area 8)		
Grave Type	Area (Sq. Feet)	# of Graves / (Sq Ft / Grave)
Single Grave (3'x11') 1 Foot Bar Foundation	0	0
Back to Back (6'x10') 2 Foot Bar Foundation	0	0
Cremation Niche (3'x3')	8,000	533
(6'x10') Flat Markers	0	0
Totals	8,000	533

Table 4.1.8.4 Expansion Area 8 Capacity

AREA 1:

*Indigent Flat
Marker
Interments*



*Single
3'x11'
Graves*

*Single
6'x10'
Graves*

*Muslim &
Green
Burials*

Figure 4.1.9.2 Plan View Area 1 Expansion

Area 1			
Grave Type	Area (Sq. Feet)	# of Graves	Volume (Cubic Yards)
Single Grave (3'x11') 1 Foot Bar Foundation	1,528	46	94
Companion Upright (6'x10')	13,354	223	
Single Flat Marker (3' x 10')	13,354	445	
Green Burial (8.58'x3.875') Sleeve	49,306	1494	3038
Cremation Niche (3'x5') (6'x10') Indigent Flat Markers	0	0	0
	40,917	1240	2521
Totals	118,459	3448	5653

Table 4.1.9.1 Expansion Area 1 Capacity

Area 1 is located at the south-eastern corner of the cemetery and consists of multiple areas including expanding the indigent area, creation of a Muslim area. The area currently exists as open land that is utilized for compost and landscape waste storage. To remain consistent with the current trend of flat marker and indigent burials in this area, area 1 is recommended to consist of indigent flat marker graves, and flat marker Muslim burials. Along the outer perimeter of this section along Hope Ave are single grave 3 feet x 11 feet with stone monuments. Trees and other landscaped features are recommended to line the perimeter along Hope Ave in order to provide an aesthetic and sound barrier to the main road. (See figure 4.1.9.2)

A new access driveway is proposed to bisect areas 1, 2, 3 and 4, which will extend from the existing Butternut Ave west to Edgewood Ave. This new driveway will provide access to these new sections.

AREA 2:

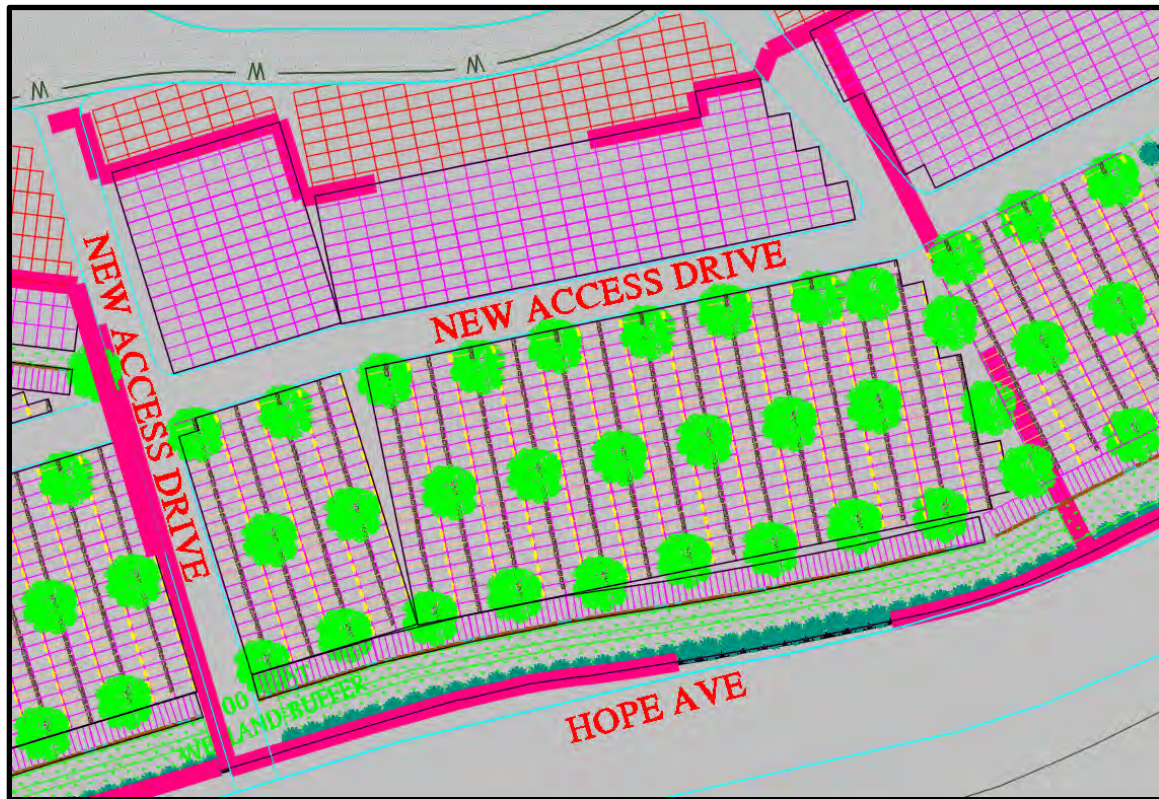


Figure 4.1.9.3 Expansion Area 2 Capacity

Area 2			
Grave Type	Area (Sq. Feet)	# of Graves	Volume (Cubic Yards)
Single Grave (3'x11') 1 Foot Bar Foundation	4,341	132	267
Companion Upright (6'x10')	41,224	687	1397
Single Flat Marker (3' x 10')	41,224	1374	0
(6'x10') Flat Markers	21,720	658	1338
Totals	108,509	2851	3003

Table 4.1.9.2 Expansion Area 2 Capacity

Area 2 is approximately 108,000 SF and has the potential to provide up to 3,500 new graves. These graves would consist of single lots with upright markers at 3 feet by 11 feet along the perimeter of the area adjacent to Hope Ave. Companion lots with upright markers at 6 feet by 10 feet and single grave lots with flat markers at 3 feet by 10 feet are designed to be laid out in the middle of the section with featured landscaping and vegetation. Additionally, the single flat markers at 6 feet x 10 feet are proposed on the North side of the section and will be a continuation of the existing section containing single flat markers that are there today.

AREA 3:

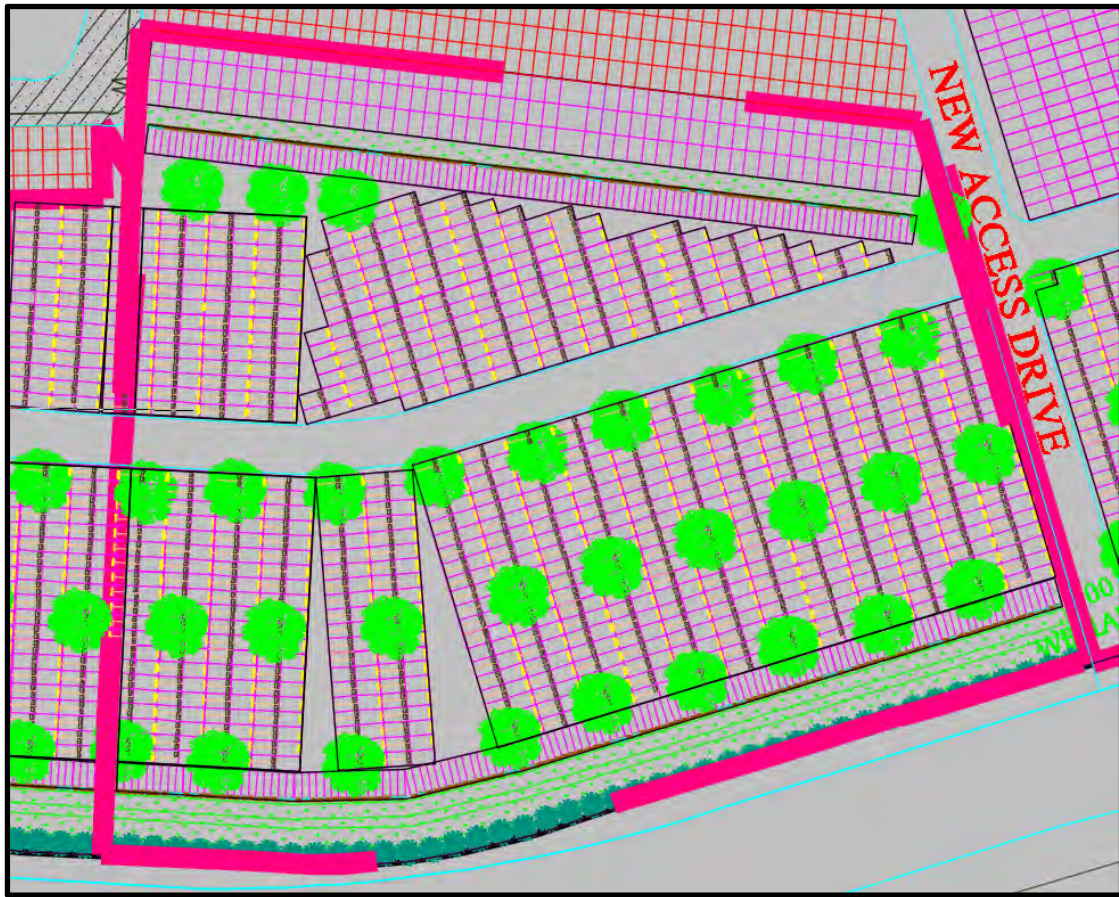


Figure 4.1.9.4 Plan View Area 3 Expansion

Area 3		
Grave Type	Area (Sq. Feet)	# of Graves
Single Grave (3'x11') 1 Foot Bar Foundation	8,506	258
Companion Upright (6'x10')	89,800	2993
Single Flat Marker (3' x 10')	89,800	2993
(6'x10') Flat Markers	9,540	289
Totals	197,646	6534

Table 4.1.9.3 Expansion Area 3 Capacity

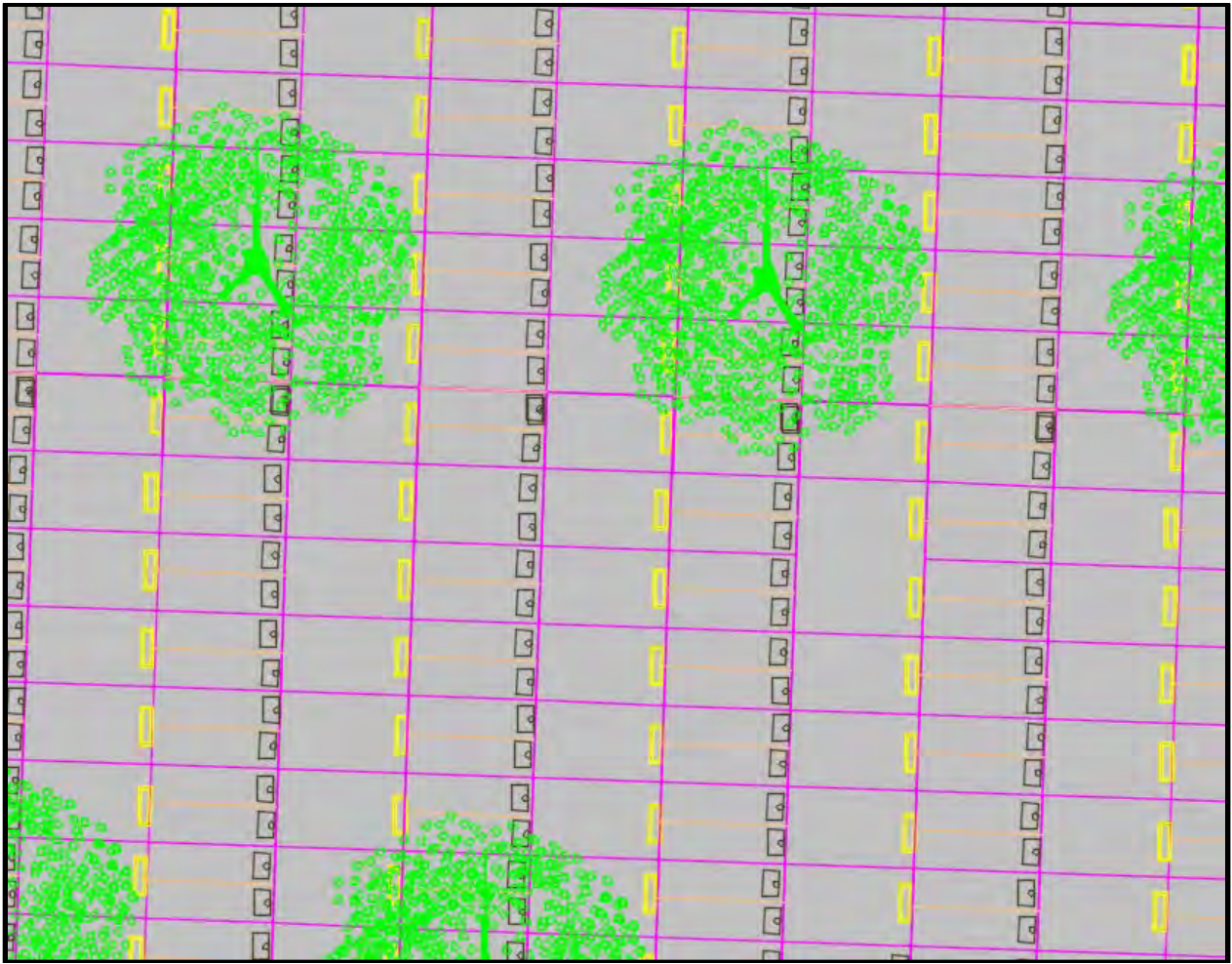


Figure 4.1.9.5 Expansion Area 3 Proposed Lot Layout

Area 3 is approximately 198,000 SF and has the potential to provide up to approximately 6,500 new graves. Similar to area 2 above and 4 below, this section would consist of single upright markers and flat markers with associated landscaping. (See figures 4.1.9.4 & 4.1.9.5)

AREA 4:

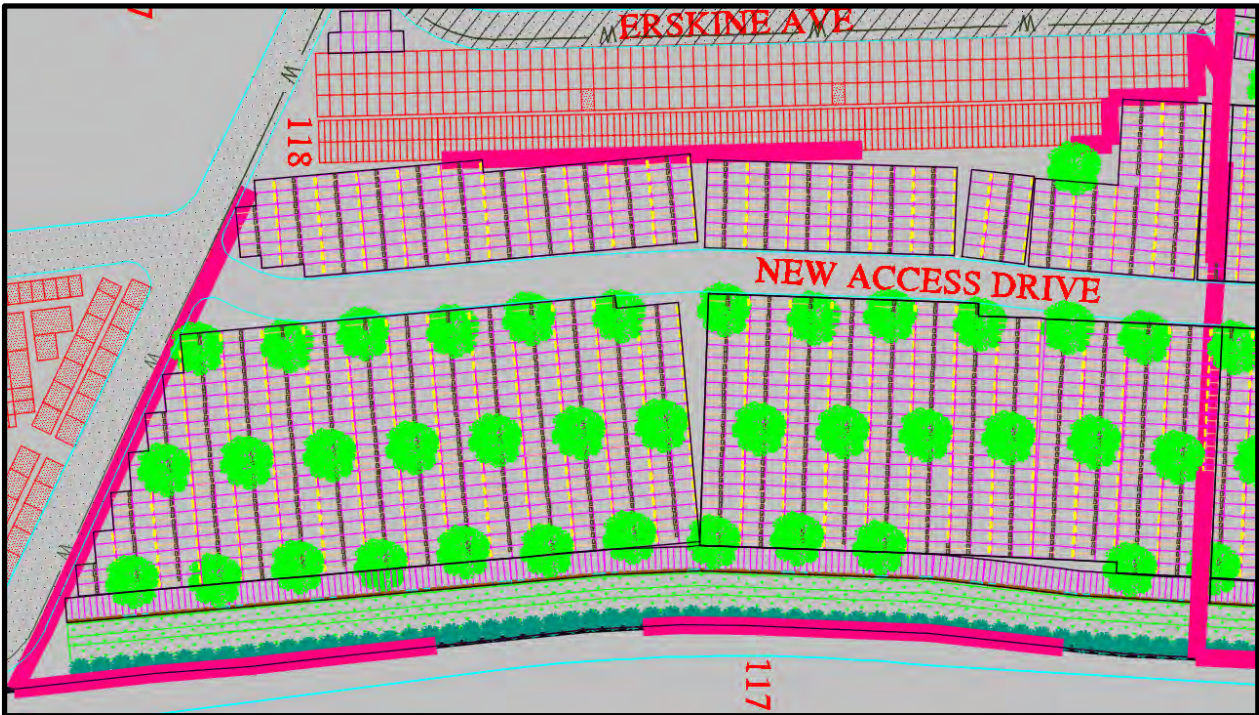


Figure 4.1.9.6 Plan View Area 4 Expansion

Area 4		
Grave Type	Area (Sq. Feet)	# of Graves / (Sq Ft / Grave)
Single Grave (3'x11') 1 Foot Bar Foundation	6,557	199
Companion Upright (6'x10')	82,629	2754
Single Flat Marker (3' x 10') (6'x10') Flat Markers	82,629	2754
	600	18
Totals	172,415	5725

Table 4.1.9.4 Expansion Area 4 Capacity

Area 4 is approximately 173,000 SF and has the potential to provide up to 5,700 new graves. This section would consist of single upright markers and flat markers with associated landscaping. (See figure 4.1.9.6 & table 4.1.9.4)

AREA 5:

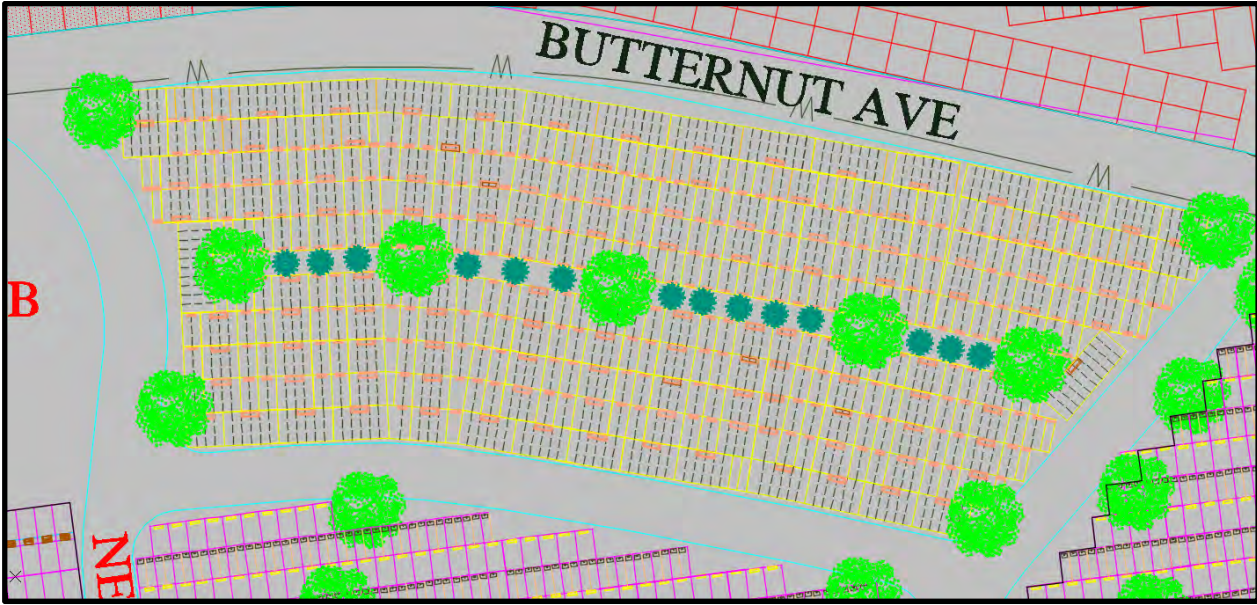


Figure 4.1.9.7 Plan View Area 5 Expansion

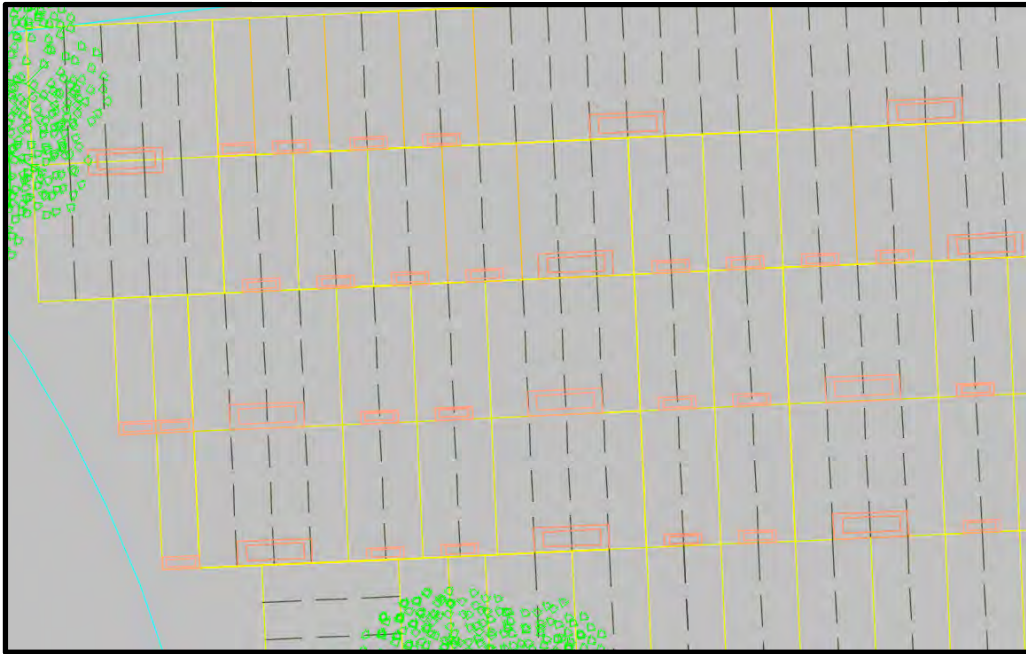


Figure 4.1.9.8 Plan View Area 5 Proposed Lot Layout

Type of Graves	Percentage (Requested) %	Number of Graves (Requested)	Percentage (Designed)	Number of Graves (Designed)
Single Graves	2	20	2.1%	21
Double Graves	44	440	46.2%	456
Three Graves	3	30	2.7%	27
Four Graves	28	280	28.0%	276
Six Graves	9	90	7.9%	78
Eight Graves	8	80	8.9%	88
Ten Graves	6	60	4.1%	40
Total	100	1000	100.0%	986
Each Grave = 11' x 3'				
Total Area				32538

Table 4.1.9.5 Expansion Area 5 Capacity

Based on a specific request from the Eastern Orthodox Church, BSC has evaluated an area for potential expansion.

Included in area 5 is the potential for the additional expansion of area adjacent to the existing Orthodox burial section. (See Figures 4.1.9.7 & 4.1.9.8). This additional expansion would provide the capacity to accommodate the additional number of graves that was requested in a letter from The Council of Eastern Orthodox Churches of Central Massachusetts. The sections currently are identified as sections 98A, 98B, 98C and 98D, with approximately 2,185 graves currently existing. The proposed expansion area has the potential to provide an additional 33,300 SF and approximately 1,000 graves. (See table 4.1.9.5). The lots would consist of single, two, three, four, six, eight and ten grave lots as well as include landscape features.

If additional area is taken from the proposed Area 6 section and added to the Orthodox section, there is an opportunity to increase the size and grave totals for this section.

AREA 6:

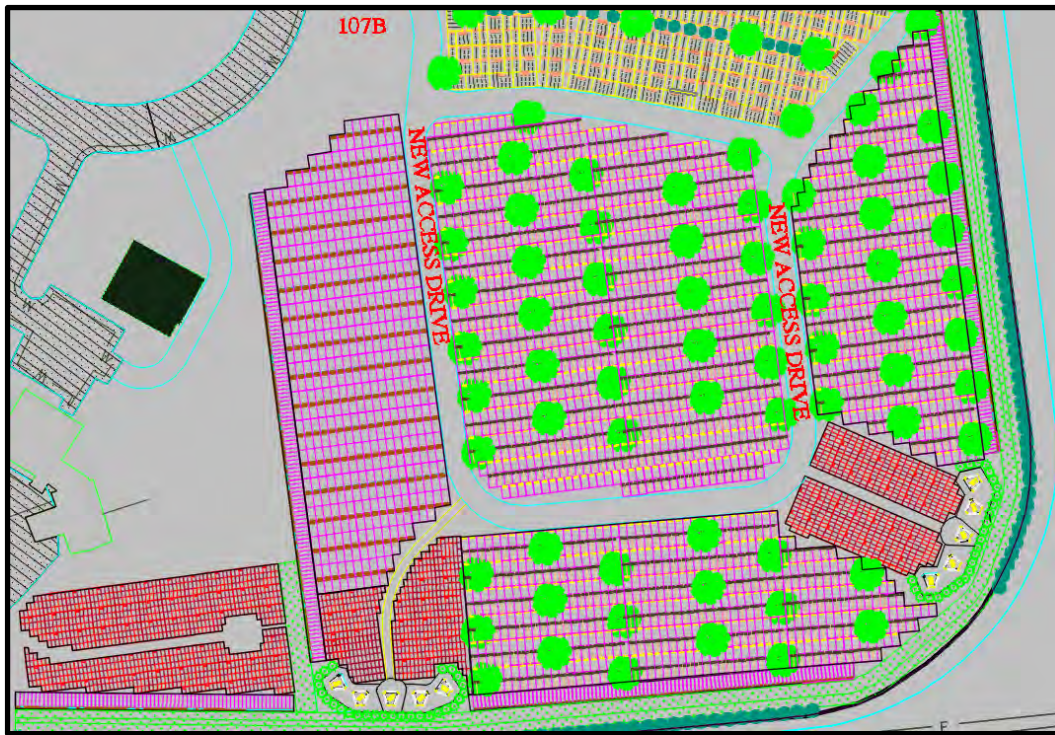


Figure 4.1.9.9 Plan View Area 6 Expansion

Area 6		
Grave Type	Area (Sq. Feet)	# of Graves
Single Grave (3'x11') 1 Foot Bar Foundation	14,329	434
Cremation Niche (3'x5')	30,210	2014
Companion Upright (6'x10')	131,909	4397
Single Flat Marker (3' x 10')	131,909	4397
Back to Back (6'x10') 2 Foot Bar Foundation	34,116	1034
Totals	342,473	12276

Table 4.1.9.6 Expansion Area 6 Capacity

Area 6 is an approximately 343,000 SF area at the South West corner of the cemetery adjacent to the main office buildings. This area is not currently being utilized and is characterized by overgrown shrubbery and stockpiled dirt and debris. This area has the potential to yield approximately 12,275 new graves, varying from single upright graves, flat markers, cremation niches and columbaria. (See table 4.1.9.6). The use of landscape features as well as an earthen berm along the perimeter of Hope Ave will increase the aesthetics of this section. (See figure 4.1.9.9)

A new access driveway is also proposed in this section to facilitate vehicle flow and provide access to the new areas.

AREA 7:



Figure 4.1.9.10 Plan View area 7 Expansion

Area 7		
Grave Type	Area (Sq. Feet)	# of Graves
(3'x11') Upright Grave	79753	2417
(3'x11') Flat Markers	79,753	2417
Totals	159,506	4834

Table 4.1.9.7 Expansion Area 7 Capacity

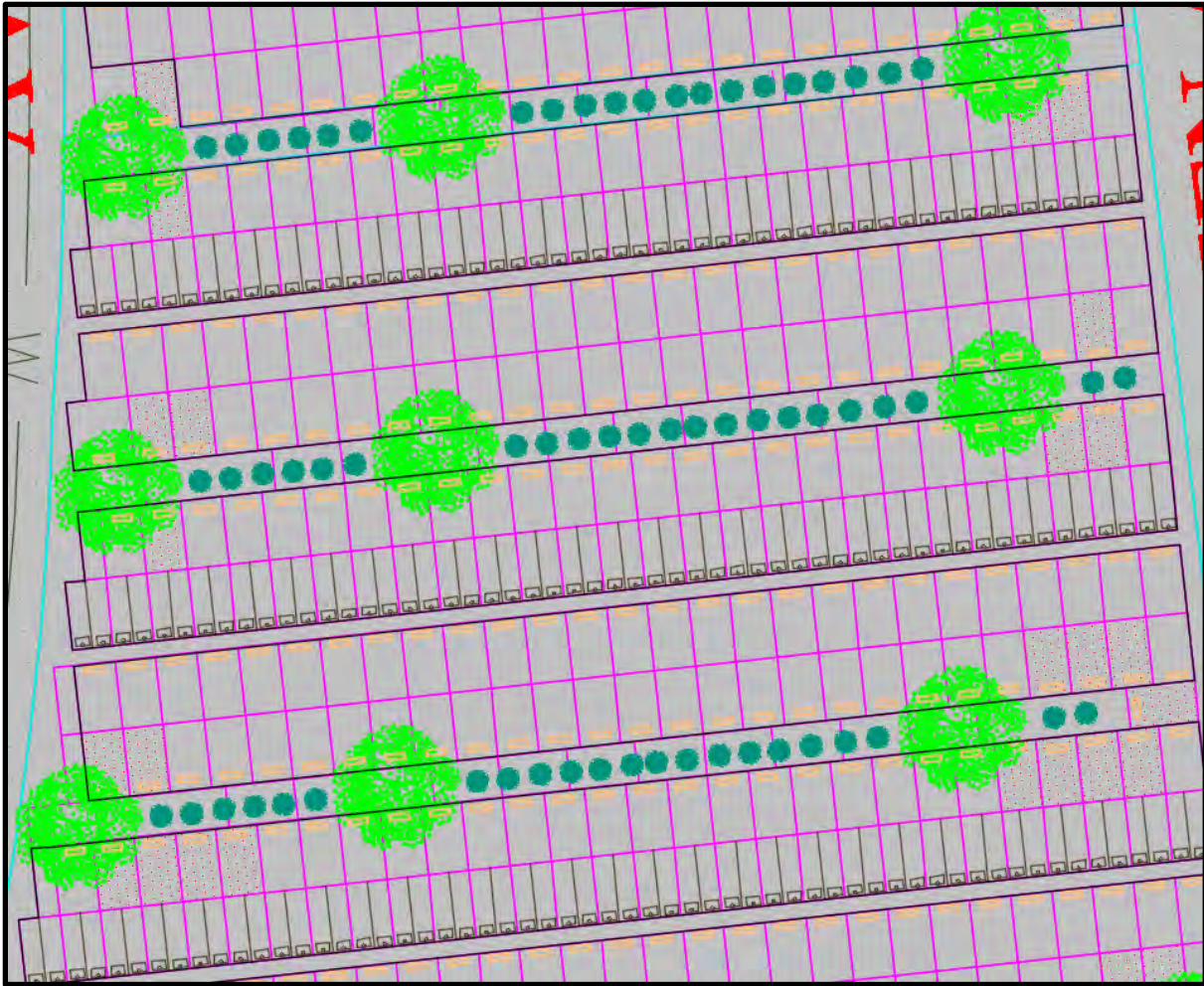


Figure 4.1.9.11 Expansion Area 7 Proposed Lot Layout

Area 7 is a modification of existing sections 108, 108A, 109 and 110 of the cemetery to utilize and maximize the amount of space currently available in this section. This section would consist of upright and flush markers with a six-foot landscape buffer between rows. The existing graves that have been utilized or that have already been sold will be incorporated into the new design layout. (See figures 4.1.9.10 & 4.1.9.11)

AREA 10:

Area 10 is an area of approximately 37,000 SF adjacent to the existing maintenance barn area, which is currently being utilized as a compost area. This area has the potential to be developed into a multi-purpose area that could serve as a soil stockpile and snow storage area. Separate sections of this area, divided into concrete “bins” could also be utilized for the continued use of composting.

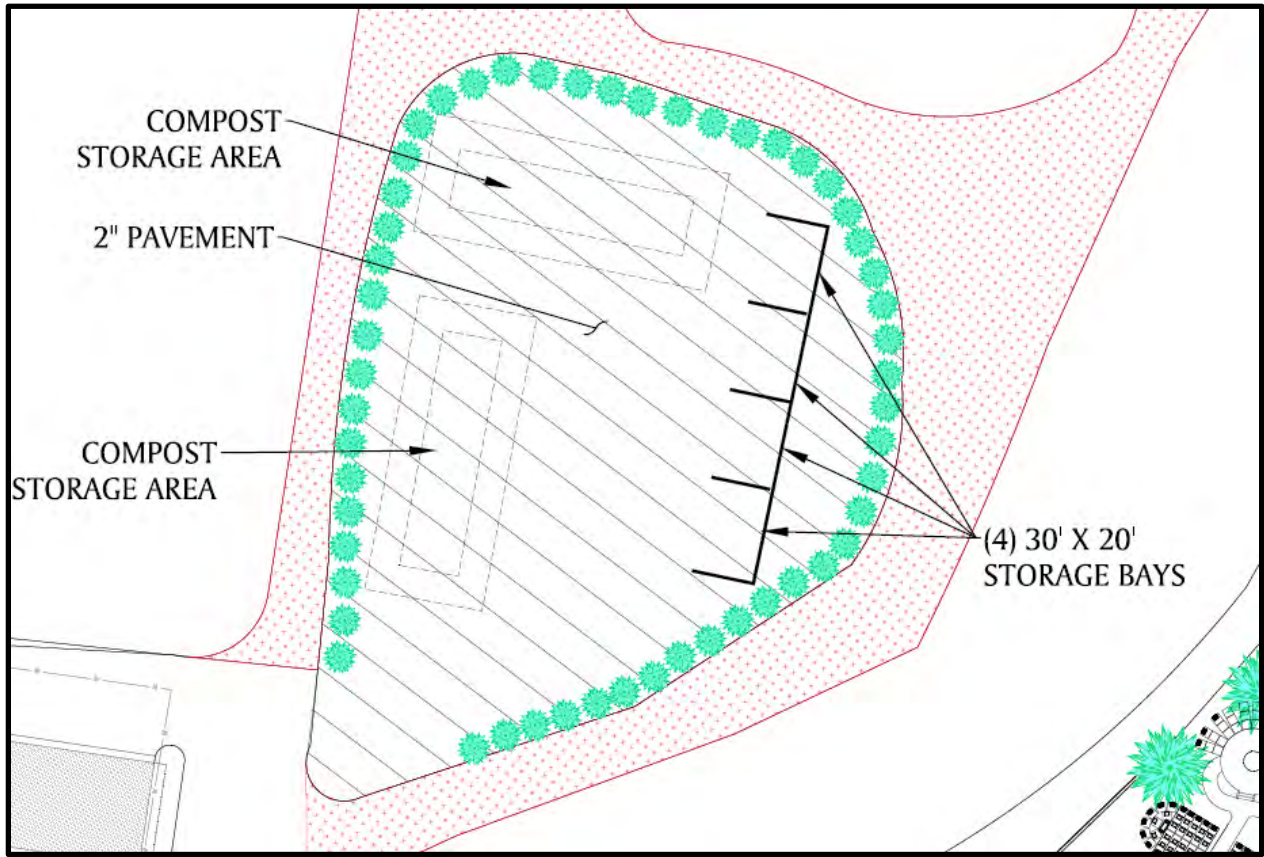


Figure 4.1.9.12 Plan View Area 10 Additional Storage

4.1.10) GREEN BURIAL SECTION

As requested by the Islamic Society of Greater Worcester and other green burial proponents, a portion of the expansion has been conceptualized for Muslim and green burials as outlined:

- An area sufficient for 1,500 contiguous gravesites.
- The majority will consist of single graves.
- The graves will be positioned approximately a foot and a half distant from the other.
- Flat memorials placed on each site, being approximately 12” by 10” in size.
- Muslim graves must be positioned so that the head of the deceased points towards Mecca.
- Grave sites within the dedicated area will be purchased by individuals interested in this burial style.
- Double depth graves and cremation are not recommended options.
- Burials to be consistent with all laws, ordinances and regulations of the Commonwealth of Massachusetts, the City of Worcester and Hope Cemetery.

Two grave size options were evaluated for these burials: one with a conventional 30-inch (32-inch exterior dimension) wide 7-foot-long outer burial container and one with a narrower 27-inch wide outer container. This width outer container is a standard industry width. (The use of an outer burial container is considered more for the protection of the staff during excavations adjacent to previous burials.) The outer burial container conceptualized in this case as more of a “sleeve” as the outer container as it has no floor and no roof. Thus, the body is entirely encased in earth and earth is placed into the outer burial container at the time of interment. At this point in time, there is no known manufacturer of this “burial sleeve” however it could be a simple modification in the common grave boxes manufactured of cement concrete.

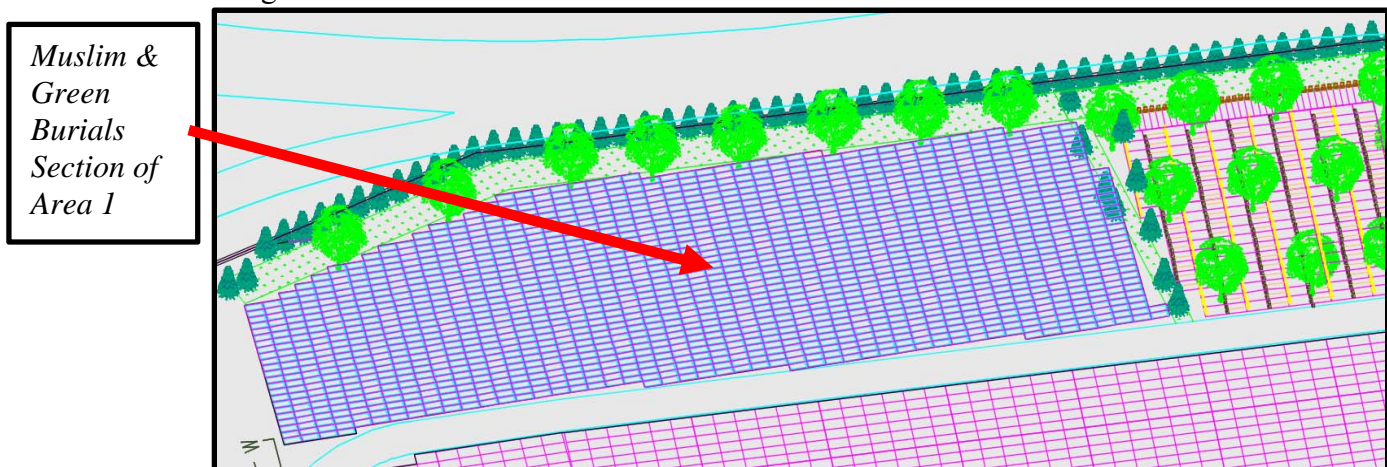


Figure 4.1.10.1 Aerial View of Expansion Area 1

- 1) This option is characterized by a 30” wide Outer Burial Container (allowing 18 inches between graves). This option requires 38 ft.² per grave (which is approximately 26% more than the typical 30 square-foot grave.) (See figure 4.1.10.2)

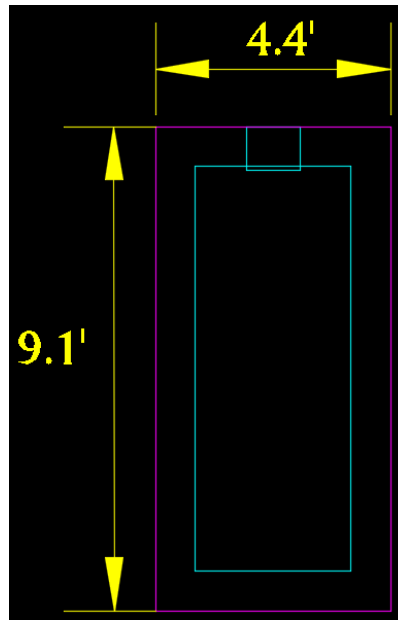


Figure 4.1.10.2 Plan View of Single Grave Standard Size Grave Box

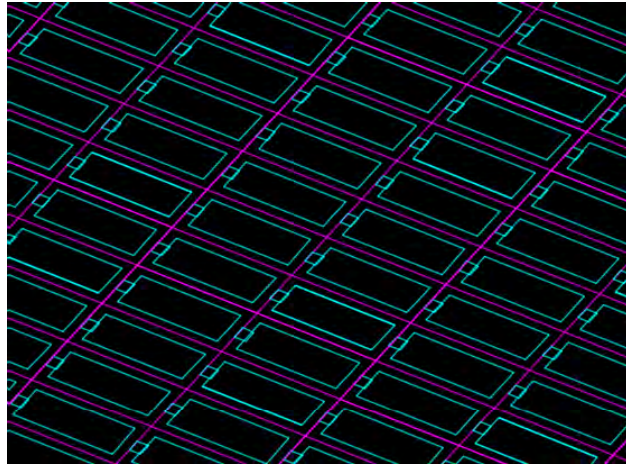


Figure 4.1.10.3 3D View Single Graves

- 2) **24” wide outer burial container (sleeve)** which allows for 18 inches between graves. This option requires 33 ft.² per grave. This container size is not a typical industry standard at this time, however some manufacturers are considering their production. This total square footage is approximately 10% more than the conventional 30 square-foot grave that is commonly used. The rationale behind a 24- inch grave sleeve is that in Muslim burial practices, the deceased are typically laid on their side to face Mecca and these burials do not utilize a casket. Because of this, the grave width can be narrower.

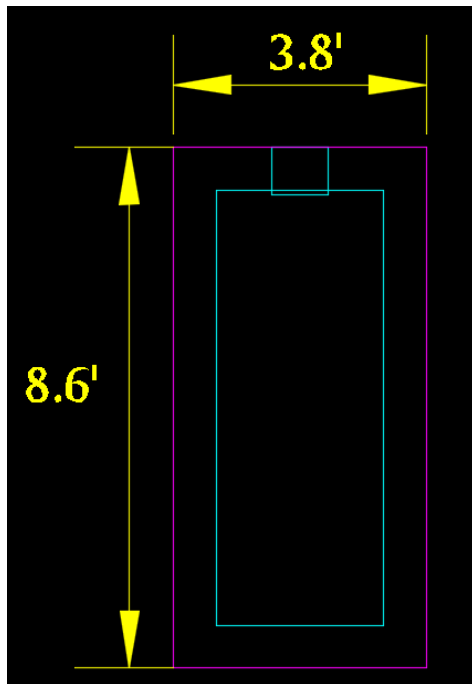


Figure 4.1.10.4 Plan View of Single Grave 24-Inch Wide Grave Sleeve

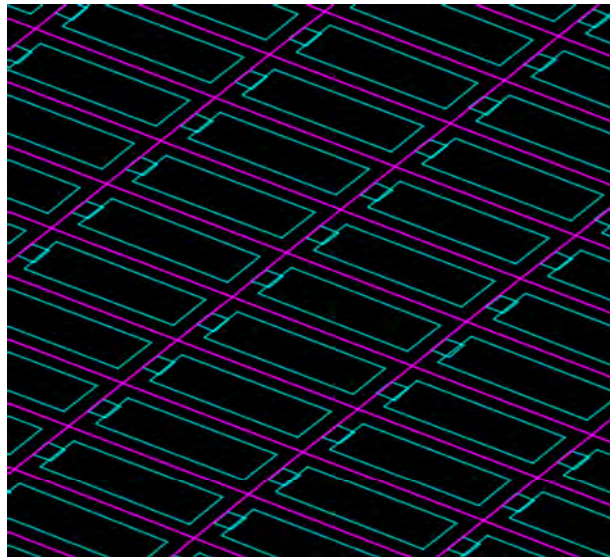


Figure 4.1.10.5 3D View Single Graves

The two grave sizes were evaluated. The 32"- wide outer burial yielded approximately 1,100 graves whereas the smaller sized 24" wide outer burial yielded 1,300 graves for a designated area (See figures 4.1.10.2 & 4.1.10.4). In both instances, BSC recommends that a 4-sided burial sleeve enclosure be used for green burials in order to ensure that the sides of the graves do not collapse while new, adjacent graves are dug.

Note that these four sided burial sleeves do not exist in a readily available form. Provided there is an adequate demand for a manufacturer to supply these sleeves, costs are expected to be comparable to a standard durable outer container.

It is noted that the use of the grave sleeve may also be considered a green burial which also has been a discussion of late in the industry.

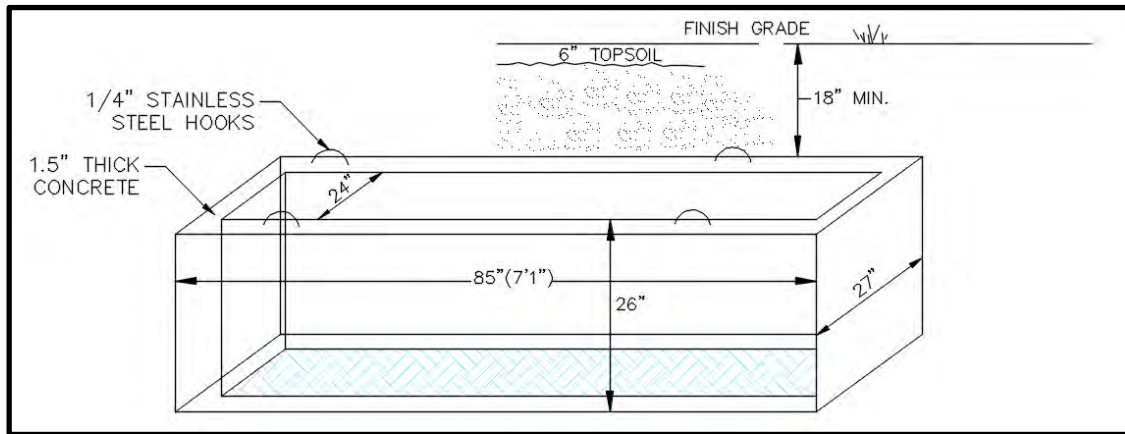


Figure 4.1.10.6 Grave Sleeve Concept Detail

Due to the possibility of the top and bottom of the burial sleeve being open to the soil, BSC expects that there may be significant settlement after the grave has been backfilled. BSC recommends three options to address the issue of settlement in relation to using the burial sleeve enclosure (See figure 4.1.10.7):

- As settlement proceeds, continue to fill in the area to keep flush with the existing ground. This will likely require a regular inspection of the grounds and several actions for a period of several years after the burials have been completed. (Not recommended.)
- Mound the area after the burial has been completed to compensate for the anticipated settlement. This option will likely prevent any routine lawn maintenance. (Not recommended.)
- Fill burial sleeve with soil and then place a cover over the sleeve to eliminate settlement. (Recommended.)
- (An additional option would be making the outer burial containers with holes in the bottom and then filling the sleeve with earth with a top cover. (Recommended.)

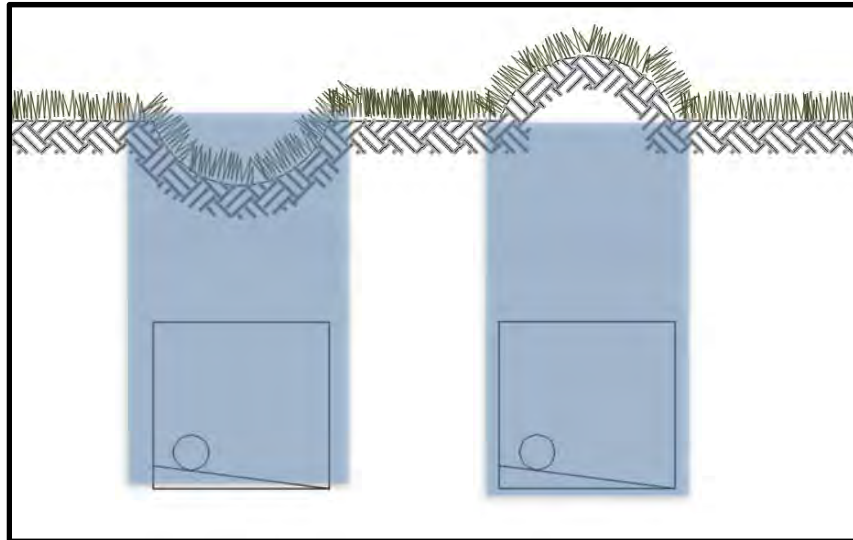


Figure 4.1.10.7 Conceptual Cross-Section of Grave Sleeve Burial / Settlement Illustration

4.1.11) INDIGENT SECTION

An indigent section is proposed to be included in area 1 to stay consistent with the layout that is currently being used by Hope Cemetery today. This section would be an extension of sections 115 and 115A. This area is estimated to provide 1240 additional grave spaces.

4.1.12) BERM ALONG HOPE AVENUE

Currently, the expansion areas along the southern perimeter are adjacent to Hope Ave, a heavily traveled road. To control noise and to add an aesthetic feature, an earthen berm is recommended to separate the expansion areas along the southern perimeter adjacent to Hope Avenue. The Berm would be four feet high and graded at 2:1 to create a subtle but effective noise barrier feature, while adding an aesthetic landscaping feature. (See figure 4.1.12.1)

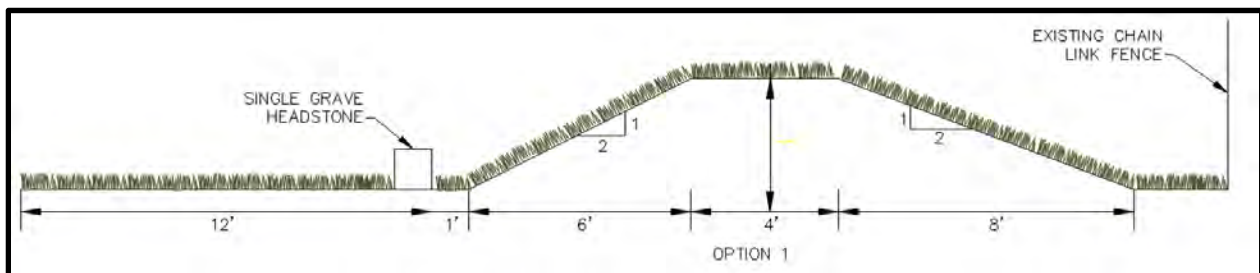


Figure 4.1.12.1 Cross Section of Berm Option 1

A second option to control noise, would be to utilize a niche wall as depicted below. It can be seen when viewing these two details side-by-side that niches can be phased and easily installed within the berm as space is needed. The concept includes provisions for thousands of cremation spaces. (See figure 4.1.12.2)

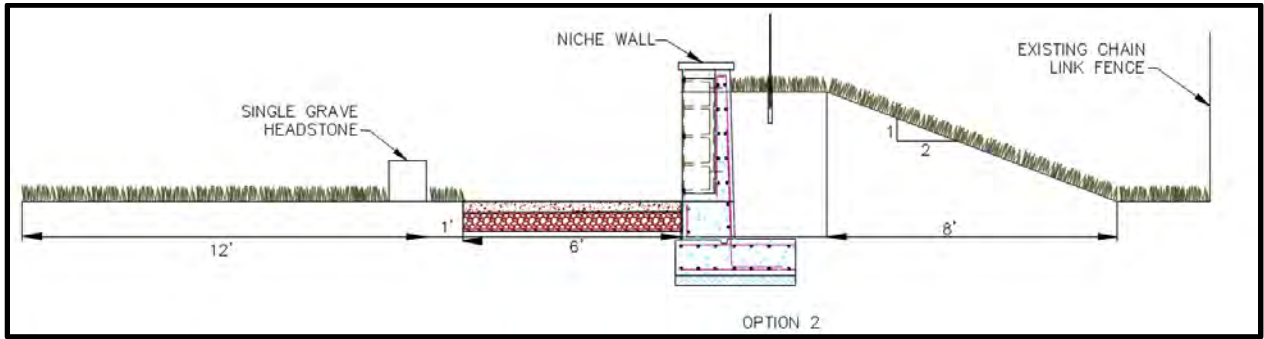


Figure 4.1.12.2 Cross Section of Berm Option 2

4.1.13) SURPLUS SOILS STORAGE AREA – POSSIBLE OPTIONS

Areas 3 and 4 have been graded in order to balance cut and fill volumes for areas 5 and 6:

- Areas 5 and 6 proposed grading equals approx. 18,000 Cubic yards of fill material
- Areas 3 and 4 proposed grading equals approx. 17,900 cubic yards of cut material
- In sequence, the material removed from areas 3 and 4 will be relocated to areas 5 and 6 for the material needed to grade this section. As the proposed graves in areas 5 and 6 are dug, this material will be used to back fill the section at areas 3 and 4. There is a total of approximately 12,000 graves with approximately 23,000 cubic yards of material that can be utilized to back fill areas 3 and 4.

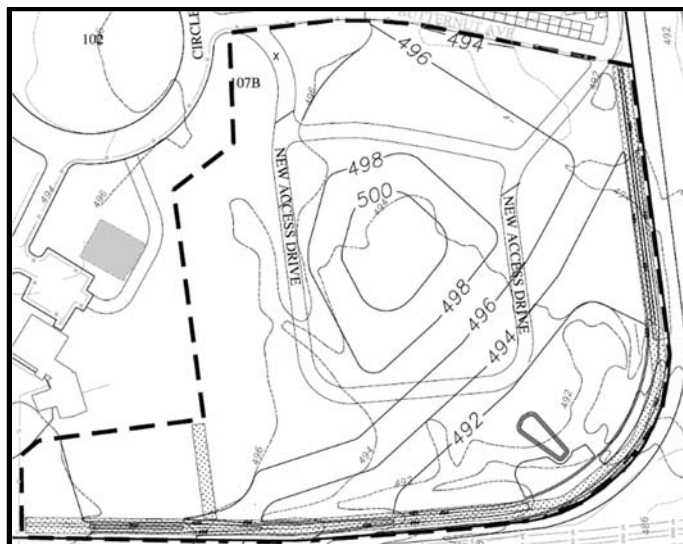


Figure 4.1.13.1 Expansion Areas 5 & 6 Grading

Area 5 and 6 Totals	
# of Graves	Volume (Cubic Yards)
13262	22869

Table 4.1.13.1 Expansion Areas 5 & 6 Total Grave and Volume Count

Area 5 and 6 Proposed Grading w/ berm	Cubic Yards
Cut	1555
Fill	19743
Net Fill	18188

Figure 4.1.13.2 Expansion Areas 5 & 6 Proposed Grading with Berm

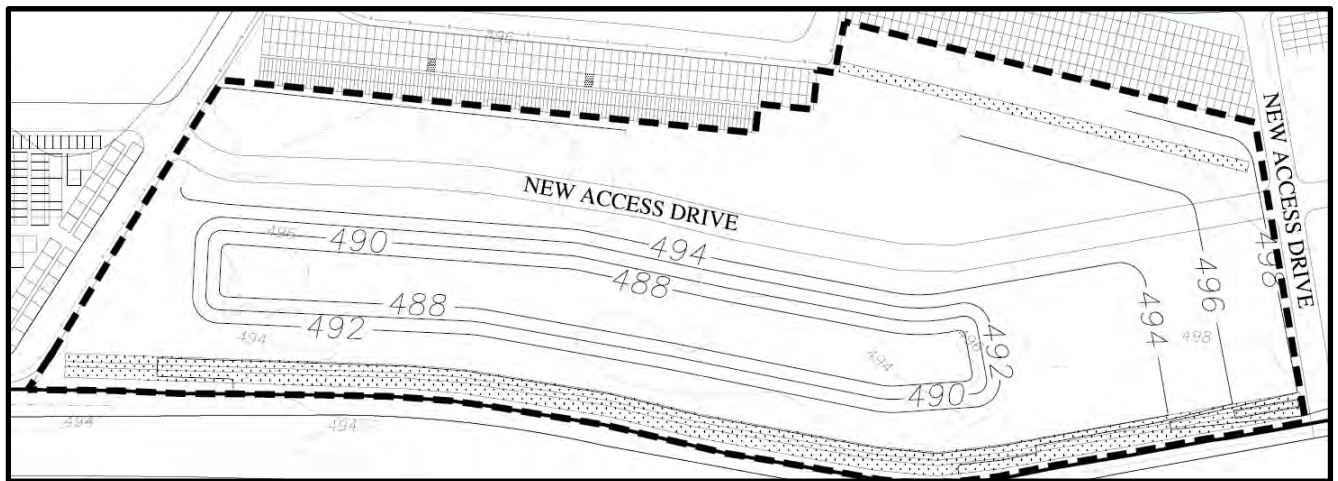


Figure 4.1.13.3 Expansion Areas 3 & 4 Proposed Grading Plan

Area 3 and 4 Proposed Grading w/ berm	Cubic Yards
Cut	18049
Fill	147
Net Cut	17902

Table 4.1.13.2 Expansion Areas 3 & 4 Proposed Grading with Berm Volumes

The proposed grading plan for areas 3 and 4, as shown in the plan view, has been designed so that there is a cut amount of approximately 18,000 cubic yards. This cut material will be moved to areas 5 and 6 to serve as the required fill necessary to grade these areas. As graves are dug in Areas 5 and 6, the excess soils from the excavations will be transported back to areas 3 and 4 as fill.

4.1.14) CREMATORY OPTION

As part of the master plan study, consideration for a possible crematory was added to this report. Given the presence of several crematories in the immediate surrounding areas, the financial viability of such an enterprise clearly requires a more detailed analysis and business plan. For this study, the possible location of a crematory structure was identified as shown below. This location is central to the area of the existing structures and available utilities.

Should a study for a crematory be completed, it should include a cost-benefit analysis to evaluate the projected increases in cremation rate, the cost of such a structure (likely to be in excess of \$1,500,000), the potential number of cases that may occur at the facility, the fees charged, the operating costs, retort repair and replacement costs, and similar factors to estimate the available financial return on such an endeavor.

Recent studies have concluded that, dependent on location, some crematories may operate in a profitable manner almost immediately after construction, while others may take 25 or more years to reach that point. The location of surrounding crematories, including those out-of-state, often play a role in this assessment.

Many recent crematories include options for three or four retorts and whether they are installed at the time of construction or planned for future expansion, they also include assembly areas where mourners may view the cremation, office space, storage space, restrooms and similar amenities. Typically, case drop-offs are located to the rear of the facility as not to be readily viewed from the remaining portions of the cemetery.

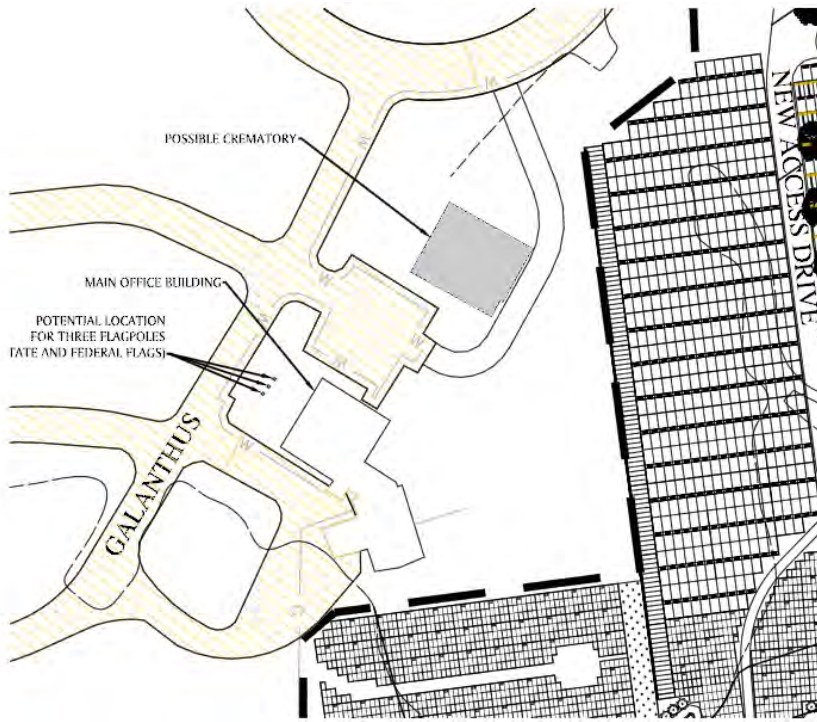


Figure 4.1.14.1 Conceptual Site Plan of Possible Crematory Location



Figure 4.1.14.2 Recent Municipal Crematory Constructed in Plymouth, MA

4.2) ESTIMATED POTENTIAL YIELD AND SALES LIFE OF EXPANSION

In total, the full estimated yield for the potential area expansions is approximately 1,200,000 S.F. with the potential for approximately 41,000 additional graves. These expansion areas would consist of a mix of upright and flush marker graves, cremation niches and columbaria. At an average rate of 250 burials per year, the proposed expansion would equate to roughly an additional 164 years of build out.

	SQ. Feet	# of Graves
Total Full Site Proposed	1,208,404	41072

Table 4.2.1 Total Grave Count

4.3) SHORT AND LONG RANGE PLANS

The evaluation of 11 different areas throughout the cemetery was made by BSC for potential expansion and additional graves to be added.

The areas along Hope Avenue that are currently being used as stockpile and compost areas would be most suitable to be developed first including areas 1-6 along with Renovation of Area 7.

Additional plans would include the expansion of Area 9 at the maintenance barn, the proposed walkways and cremation gardens at Area 11 and 12 as well as the front cremation garden at Area 8. Area 10, which is currently a composting area adjacent to the maintenance barn, has the potential to be developed into a storage area, and could be utilized for immediate use by the maintenance staff.

4.4) NEXT PHASE OF DEVELOPMENT

BSC recommends the next phase of development to be the earthworks and grading preparation of Areas 1 and 5.

4.5) ORDER OF MAGNITUDE ESTIMATE OF CONSTRUCTION COSTS

The basis for the order of magnitude development costs per interment (per grave or urn) is based on BSC's extensive experience of municipal cemetery expansion projects in Massachusetts between 1995 through 2015.

Project	Contract	Number of interments	Cost per Interment
Hillside Cemetery Norwood, MA	\$383,000	5830	\$ 65
Mount Pleasant Cemetery - Arlington, MA	\$180,000	1450	\$ 125
Mashpee Cemetery - Mashpee, MA	\$306,500	2200	\$ 140
Clinton Municipal Cemetery - Clinton, MA	\$200,000	1035	\$ 195
Fox Hill Cemetery - Billerica, MA	\$629,600	3085	\$ 205
Rural Cemetery – Southborough, MA	\$562,000	2,019	\$ 250
Vinedale Cemetery - Dedham, MA	\$300,000	680 (LC)	\$ 411

Woodside Cemetery – Cohasset, MA	\$583,300	1,400	\$ 430
Mount Hope Cemetery - Boston, MA	\$401,000	903	\$ 440
Fairview Cemetery - Boston, MA	\$640,000	1072 (LC)	\$ 600
Westwood Cemetery Westwood, MA	\$455,000	490 (180 niches)	\$ 925

BSC has divided cemetery expansion costs into four categories:

Low: \$100- \$350 per grave: Some earth works, landscaping and drives
 < \$100 per grave: Minimal grading and drives only

Medium \$350- \$800 per grave: Significant earth works, landscaping and drives possible
 lawn crypts (LC), retaining walls w/ niches

Very high: > \$800 per grave: Extensive earth works, landscaping and drives and
 price of lawn crypts

Based on these ranges of costs, projected grave space development potential for each of the following areas of an order of magnitude development cost is summarized below.

The following estimates are considered conservative and are intended for long range planning only. There is no need to develop all areas at this time and only do so as demand requires.

Area	Description	# Graves	# Niches	Total	Construction Cost Range	Est. Cost Factor	Order of Magnitude Cost
1	Area along Hope Ave	3,000	0	3000	Low-Med	\$200.00	\$600,000.00
2	Area along Hope Ave	3,538	0	3538	Medium	\$600.00	\$2,122,800.00
3	Area along Hope Ave	6534	0	6534	Medium	\$600.00	\$3,920,400.00
4	Area along Hope Ave	5725	0	5725	Medium	\$600.00	\$3,435,000.00
5	Orthodox Section	986	0	986	Medium	\$550.00	\$542,300.00
6	Area Next to Main Office Building	10262	2013	12275	Very High	\$800.00	\$9,820,000.00
7	Sections 108-111	4834	0	4834	Low	\$150.00	\$725,100.00
8	Front Cremation Garden	0	533	533	Medium	\$600.00	\$319,800.00
9	Area at Maintenance Building	1346	0	1346	Medium-High	\$700.00	\$942,200.00
10	Storage Area	N/A	N/A	N/A	Est	Est	\$100,000.00
11	Northeast Corner Cremation Garden	0	1202	1202	Very High	\$900.00	\$1,081,800.00
12	Proposed Walkway Area	0	428	428	Very High	\$900.00	\$385,200.00
Total		36,225	4,176	40,401			\$23,994,600.00
Interment Capacity						cost per grave	\$593.91
						Cost per interment	\$308.41

Table 4.5.1 Order of Magnitude Estimated Construction Costs for Various Areas

SECTION 5.0 – FINDINGS

- 1) The Cemetery consists of approximately 160 acres of land.
- 2) There is approximately 28 acres of undeveloped land available for cemetery use.
- 3) The cemetery services the population of the city of approximately 182,000. Based on a national mortality rate of 0.9%, approximately 1,640 persons per year will seek grave space within the city.
- 4) Currently, approximately 15% of the population choose Hope Cemetery as their final resting place.
- 5) There are a number of surrounding cemeteries including religious and other facilities. This is likely the reason the market share is approximately one half of that typical municipal cemetery.
- 6) The cemetery has been selling from 110 (2005) to 140 (2015) graves per year over the last decade. This rate has been rising slightly. Sales over 10 years ago were of a higher volume.
- 7) Through the public hearing process, two groups were identified as having interest in having special sections developed. These include:
 - a. The Council of Eastern Orthodox Churches of Central Massachusetts
 - b. The Islamic Society of Greater Worcester
- 8) There are approximately 1 million square feet of driveways within the cemetery. Condition of these driveways are as follows:
 - 45 % Good Condition
 - 32 % Fair Condition
 - 23 % Poor Condition
- 9) The last 25 years 4,500 graves have been consumed in the cemetery. The percentages are as follows:

Single graves	
Sold as individual single graves	25%
Indigent burials	25%
Indigent burials after interment	25%
Multiple grave lots throughout the cemetery	14%
Multiple grave lots sections 108 to 111	11%
- 10) The cemetery completes approximately 250 interments per year which consist of:
 - a. Full casket interments
 - b. Cremation interments

- 11) The rate of cremation interments at Hope Cemetery has risen at the cemetery from 20% in 1995 to 40% 2015. This rate is expected to continue to increase.
- 12) The cemetery completes a significant percentage (5 to 10%) of indigent burials. Indigent burials are completed in single graves in one section of the cemetery. Indigent burials are a much higher percentage than prior decades.
- 13) Approximately 50% of the indigent burial graves are ultimately purchased by the families and flat markers are installed to memorialize the person interred at that location.
- 14) There is no specific cremation garden or cremation niche facility in the cemetery.
- 15) The site is not impacted by wetlands or floodplain.
- 16) Soils on site are considered to be generally well-suited for cemetery use consisting of a sandy gravel with a water table deep enough to not impact opening of graves.
- 17) In 2010 a new office building and Chapel were constructed on site. This transferred the office operation to the new building from the older building and created an opportunity for Chapel use by the community. The structure is serviced by municipal water and an on-site sewer septic system.
- 18) The cemetery is listed on the National Historic Register with specific reference to the barn, original office building, walls / fences surrounding cemetery and a variety of private memorials in the cemetery.
- 19) The area along Hope Avenue has an existing earthen berm separating it from Hope Avenue. This barrier serves as both a visual and sound barrier to the heavily traveled road but has become overgrown and unsightly.
- 20) Fences and walls surrounding the cemetery are in a variety of condition. Older historic fences are of cast-iron/wrought iron and new fences are typically chain-link fence.
- 21) The cemetery utilizes HMIS software for its record-keeping.
- 22) The cemetery enjoys the support from the Friends of Hope Cemetery who assist in community programs and cultural activities.
- 23) The maintenance barn has had very little maintenance over the last several decades and is considered to be in poor condition. The flooring is braced up on a timber crib and there are holes in the roof. Much of the lower floor is not used. Additionally, the second floor is not useable space.
- 24) The maintenance area has underground storage tanks, which were installed in the last 10 years. The proposed design recommendations are to maintain these tanks.
- 25) The area of the site near Hope Avenue was used partially as a leaf composting and stump disposal area over the past decades. This activity has now ceased.

- 26) A tree assessment is not included as a scope item in this study.
- 27) The area that comprises sections 108, 108A, 109 and 110 is highly visible as one enters the cemetery. This area was developed over 25 years ago and is largely unsold. In addition to the open expanse, there are concerns relative to the proximity of headstones to plant trees and the potential impact by said trees.
- 28) The cast iron gate at the central entrance known as “Nixon Gates” was damaged by a falling tree and is scheduled for repairs.
- 29) The central gate area noted above was the location of a prior chapel structure and a former caretaker’s house. Both of the structures have since been razed and only a lawn area remaining.
- 30) Equipment used on-site is stored in the barn and equipment areas.
- 31) There is potential to excavate a sizable area within the cemetery for the future placement of surplus soils generated during grave excavation. This soil can be used to grade new sections and minimize the need to remove soil to off-site as the cemetery reaches capacity.
- 32) The demand for full casket grave space is expected to remain nearly constant over the next 20 years even though the baby boomer generation will reach the end-of-life. The dramatic increase in the cremation rate will counter the increased mortality numbers associated with the baby boom population and result in the demand for cremation space raising over 200% from its current condition.
- 33) The 28 acres of usable land and the projected demand for grave space of approximately 250 per year should result in approximately 164 years of sales life in the cemetery.
- 34) Short-term and long-term budgets are required to plan the immediate and long-term activities at the cemetery.
- 35) Rules and Regulations currently allow non-residents to purchase burial rites in the cemetery. The use of the cemetery by non-residents will ultimately result in the cemetery’s lifespan being shortened.
- 36) An area is available for the placement of a crematory near the office building. The feasibility of such a crematory is beyond the scope of this assessment, however having several crematories’ in close proximity to the site is expected to result in a finding that such a development may not be viable.

SECTION 5.1 RECOMMENDATIONS

- 1) Based on the requests of the public and cooperation of the Dept, proceed with the design and development of Areas 1 and 5.
- 2) Modify the grave layout plan for sections 108 through 111 to provide space for additional plantings and minimize the impact tree roots on headstones. This will provide a significant sales inventory with minimal investment.
- 3) Where the demand for indigent burials remain high, and whereas approximately 50% of the graves of indigent burials have subsequently purchased to allow memorialization, consider the use of double lawn crypts for indigent burials to conserve land, and require removal of the interred indigents to a new grave should family members choose to purchase interment rights and memorial space. Such lawn crypts could be installed en-masse 100 to 200 at a time.
- 4) If deemed necessary after modification of sections 108 through 111, prepare plans for grave development to include approximately 20 years of grave sales. This will require topographic surveys and accurate mapping of the areas to be developed, as well as coordination with interested parties (i.e. Orthodox or Muslim sections).
- 5) Define specific areas for the use of double depth interments.
- 6) Excavate an area (to be used for future burials) and use the soil from that area to contour the land of a new section. Although this increases construction costs during the initial phases, by providing an area to place surplus soils generated from grave excavations, will minimize the need to remove soils off-site as the cemetery reaches capacity.
- 7) Whereas cremation rates are rising dramatically, provide a cremation garden area. The entrance at the Nixon gates, the former chapel and care takers building are well suited to this and by using the proposed pod like gardens they can be readily phased and developed as needed. Further, a pre-engineered niche unit could be placed as a focal point at the high point of the area of the former caretaker's house.
- 8) Begin planning the demolition of the equipment barn and modification of the storage yard compact configuration that can be completely fenced in and enclosed during non-operational hours. Whereas this is a historic registered building, it will include involvement with the Worcester Historical Commission.
- 9) Modify the storage areas adjacent to the barn with the installation of screen landscaping, fencing, material storage bins etc.
- 10) In keeping with the historic and elegant nature of the entrance at the Nixon gates, consider placement of a private mausoleum in proximity of the gate and create a valuable feature in that area and enhance any future cremation garden located there.

- 11) Prepare a final phasing plan for modification of existing driveways including temporarily closing older and poor condition driveways prior to removal of said driveways. (Closing driveways for an extended period of time prior to removal is one method to receive inquiries as to why driveways closed and if it's removal will be perceived as an issue.)
- 12) Several grave layout patterns have been evaluated as part of this study. It is recommended for consistency, ease of operation by the operators, and general appearance that one pattern be chosen and used consistently throughout the remaining portion of the cemetery. It should include potential for multiple grave lots with upright memorials, single grave lots with upright memorials, and single grave lots with flush markers. The percentage should be proportionate with the demand for sales configurations and may vary with time. One layout is well-suited to the use of lawn crypts. These could be installed en-masse in phases.
- 13) Prepare a phased program to repair fences and walls. Due to the high cost of restoration, wrought iron fencing will likely be done over a several year period.
- 14) Update Rules and Regulations and forms that are currently being addressed via a sub-effort of this assessment.
- 15) Prepare a "Request for Proposals" through the City's procurement office to obtain, install and implement an updated computerized data base system including attaching data to mapping (where maps are available: I.E. feasibility of attaching data to mapping may not be viable for older sections where no mapping of individual lots exists.) In addition to the system being used, (HMIS) which has mapping modules available but not installed now, there are many such commercially systems available to accomplish this task and it is expected that the HMIS data should be able to be converted to other software if another system is chosen as most beneficial. At a minimum, the data base should include lot number and grave number, license holder name, license holder address/contact info, deceased name(s), relation to license holder, type of burial (full casket or cremation), vault company name, monument company name, number of interment rights associated with the lot (grave). In addition, the record lot owner cards should be scanned and entered. The City should decide if it wishes to have the data base be a public "on-line" system available to the public without city involvement, or only be accessible to cemetery staff. Many systems now include "apps" for smart phones and pads to aid visitors in finding graves.

APPENDIX

A SITE PLANS (SEPARATE)

APPENDIX

B MUSLIM BURIAL RITES

Islamic Society of Greater Worcester

57 Laurel St., Worcester MA 01605

MUSLIM BURIAL RITES

by

Dr. Mohammad Yousaf

Dr. Saleem Khanani

Dr. Khalid K. Sadozai

*“Every soul will taste death,
and you will only be given your [full] compensation on the Day of Resurrection.”*

Qur'an 3: 185

After a person passes away, following procedures are done in the same order:

- Washing the body (by close relatives or community members, in a designated funeral home),
- Shrouding the body (with unsewn white cotton cloth),
- Praying on the body (usually in the mosque, funeral home, or a ground, whatever is convenient and can accommodate the expected number of people). It takes 5 minutes to finish this prayer.
- Burying the body.

There are certain rules and regulation followed in each step. General rules about the last item (Burying) are summarized below:

1. Body should be handled with utmost respect and dignity.
2. Maximum effort should be made to avoid any inconvenience to all the people during transportation and burying.
3. It is highly recommended that, if possible, the person be buried in a graveyard dedicated to Muslims, and as close to where family lives as possible (to make it convenient for them for later visitations).
4. There is no need to transport the body to far off distances
5. It is highly recommended to bury the person as soon as possible.
6. There is no need to embalm the body.
7. Autopsy can be performed only if it is required for legal purposes.
8. It is recommended and a tradition that the body be buried in the (unsewn cloth) shroud, called *kafan*, without a box. However, if there is a danger of water pollution, or local laws do not allow that, then the body can be buried in a vault. No particular material for the vault is prescribed.
9. The recommended gravesite size is nine (9) feet by three and half (3.5) feet.
10. It is required that the sanctity and respect of other graves in the graveyard be respected. Sitting or walking on the graves is not allowed.
11. The persons lowering the body in the grave should be in the state of purity (just like one has to be during prayer).
12. Body should be placed in the grave in such a position that it faces to Mecca (30 degrees North of East in New England).
13. The people attending the funeral should not talk much about worldly affairs and businesses. This is a time to reflect and remember death.
14. A sign can be placed in order to identify the grave.
15. The grave should be deep enough to protect the body.
16. The grave can be flat, or camel hump shape, and it can also be slightly raised from ground.
17. People attending the funeral should participate in putting dirt on the grave, at least three handfuls by each person.
18. People attending the funeral should supplicate after burial for the deceased and console the families. It is recommended to send food to the bereaved family.

Besides, the following points should be noted:

1. Cremating the dead body is forbidden.
2. It is recommended that if the deceased died with a debt he/she owes to someone, it should be waived, or else, some family or community member should take responsibility to pay it off.

3. Relatives and friends are expected to visit the graves of the loved ones from time to time.
4. Good care should be taken of the graveyards. They should be kept clean, nice looking and convenient for visitations by the loved ones.

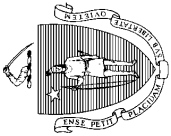
Please note that:

- There can be slight variations in customs for people from different parts of the world. Above guidelines are based on authentic religious traditions, and mostly these are followed here in US.
- It will be realized that most of the traditions of Islamic burial are like Jewish traditions (<http://agoodgoodbye.com/news/articles/jewish-burial-equals-green-burial/>).

APPENDIX

C

SOIL TEST PIT LOGS



Commonwealth of Massachusetts
City/Town of

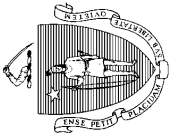
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

A. Facility Information

Hope Cemetery
 Owner Name _____
 119 Webster Street
 Street Address _____ Map/Lot # _____
 Worcester MA 01603
 City State Zip Code _____

B. Site Information

- (Check one) New Construction Upgrade Repair
- Soil Survey Available? Yes No
 If yes: UC-Davis Soil Web Source _____ 255A
 Soil Map Unit _____
 WindSOR
 Soil Name _____
 Excessively Drained
 Soil Limitations _____
 Loose Sandy Glaciofluvial Deposits
 Upland
 Geologic/Parent Material _____
 Landform _____
 Surficial Geological Report Available? Yes No
 If yes: _____
 Year Published/Source _____ Publication Scale _____ Map Unit _____
- Flood Rate Insurance Map
 Above the 500-year flood boundary? Yes No
 If Yes, continue to #5.
- Within a velocity zone? Yes No
 Within the 100-year flood boundary? Yes No
- Within a Mapped Wetland Area? Yes No
 MassGIS Wetland Data Layer: _____
 Wetland Type _____
- Current Water Resource Conditions (USGS): 11/2015
 Month/Year _____
 Range: Above Normal Normal Below Normal
- Other references reviewed: 421851071312601-MA-SSW 12 Southborough MA Well Data



Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review *(minimum of two holes required at every proposed primary and reserve disposal area)*

Deep Observation Hole Number: TP#1 12-30-2015 12:30 PM Cloudy 34 Degrees
Date Time Weather

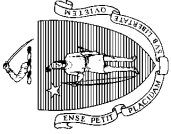
1. Location
Ground Elevation at Surface of Hole: _____ feet Latitude/Longitude: _____ / _____
Description of Location: _____

2. Land Use Wooded Lot Some Boulders 2%
(e.g., woodland, agricultural field, vacant lot, etc.) Surface Stones (e.g., cobbles, stones, boulders, etc.) Slope (%)
Wooded _____ _____
Vegetation _____ _____

3. Distances from: Landform Position on Landscape (SU, SH, BS, FS, TS)
Open Water Body Drainage Way Wetlands _____ feet
Property Line Drinking Water Well Other _____ feet

4. Parent Material: Sandy Glaciofluvial Deposits Unsuitable Materials Present: Yes No
If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No If yes: _____ Depth Standing Water in Hole
Estimated Depth to High Groundwater: _____ inches _____ elevation



Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review (continued)

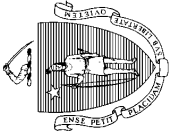
Deep Observation Hole Number: _____ TP #1

Depth (in.)	Soil Horizon/ Layer	Soil Matrix: Color- Moist (Munsell)	Redoximorphic Features		Soil Texture (USDA)	Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
			Depth	Color		Percent	Gravel			
0-108"	Fill	10 YR 3/3			SL	10	10	Massive	Massive	

Additional Notes:

Stumps, trash and debris found throughout total depth of test pit.

Soil was a sandy loam 10 YR 3/3; approx. 10% gravel and 10% cobbles; no large boulders found



Commonwealth of Massachusetts
 City/Town of _____
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review (continued)

Deep Observation Hole Number: TP#2 _____ **Date:** 12/30/2015 **Time:** 1:00 PM **Weather:** Cloudy 34 Degrees

1. Location
 Ground Elevation at Surface of Hole: _____ feet Latitude/Longitude: _____ / _____

2. Land Use
 Wooded Lot _____ **Some Boulders** _____ **Slope (%)** 2%
 (e.g., woodland, agricultural field, vacant lot, etc.)
 Wooded _____ Surface Stones (e.g., cobbles, stones, boulders, etc.) _____

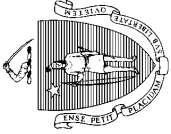
3. Distances from:
 Open Water Body _____ **Landform** _____ **Position on Landscape (SU, SH, BS, FS,**
 Property Line _____ **Drainage Way** _____ **Wetlands** _____ **Other** _____
 feet feet feet feet feet feet

4. Parent Material: _____ **Unsuitable Materials Present:** Yes No

If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No **If yes:** _____ **Depth Weeping from Pit** _____ **Depth Standing Water in Hole** _____

Estimated Depth to High Groundwater: _____ inches _____ elevation



Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review (continued)

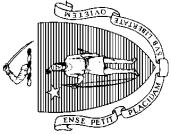
Deep Observation Hole Number: _____ TP#2

Depth (in.)	Soil Horizon/ Layer	Soil Matrix: Color- Moist (Munsell)	Redoximorphic Features		Soil Texture (USDA)	Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
			Depth	Color		Percent	Gravel			
0-72"	Fill	10 YR 3/3			SL	40	30	Massive	Massive	
72"-100"	B	10YR 6/4			LS	40	30	Loose	Friable	

Additional Notes:

Stumps, trash and debris found in fill layer. Fill layer consisted of fine sandy loam 10YR 3/3 with trace silt and clay. Fill layer was bony material 40% gravel 30% cobbles

B layer was firm in place loose in hand, approx. 40% gravel and 30% cobbles and stones.



Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

D. Determination of High Groundwater Elevation

1. Method Used:
- Depth observed standing water in observation hole
Obs. Hole # _____ inches
 - Depth weeping from side of observation hole
Obs. Hole # _____ inches
 - Depth to soil redoximorphic features (mottles)
Obs. Hole # _____ inches
 - Depth to adjusted seasonal high groundwater (S_h) (USGS methodology)
Obs. Hole # _____ inches

_____ Index Well Number _____ Reading Date _____

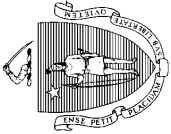
$$S_h = S_c - [S_r \times (OW_c - OW_{max}) / OW_r]$$

Obs. Hole # _____ S_c _____ S_r _____ OW_c _____ OW_{max} _____ OW_r _____ S_h _____

Obs. Hole # _____ S_c _____ S_r _____ OW_c _____ OW_{max} _____ OW_r _____ S_h _____

E. Depth of Pervious Material

1. Depth of Naturally Occurring Pervious Material
- a. Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system?
 Yes No
 - b. If yes, at what depth was it observed?
Upper boundary: _____ inches
Lower boundary: _____ inches
 - c. If no, at what depth was impervious material observed?
Upper boundary: _____ inches
Lower boundary: _____ inches



Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

F. Board of Health Witness

Name of Board of Health Witness

Board of Health

G. Soil Evaluator Certification

I certify that I am currently approved by the Department of Environmental Protection pursuant to 310 CMR 15.017 to conduct soil evaluations and that the above analysis has been performed by me consistent with the required training, expertise and experience described in 310 CMR 15.017. I further certify that the results of my soil evaluation, as indicated in the attached Soil Evaluation Form, are accurate and in accordance with 310 CMR 15.100 through 15.107.

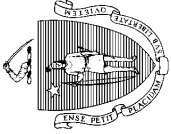
Brian Paula #SE13692
Signature of Soil Evaluator

2015-12-30
Date

Typed or Printed Name of Soil Evaluator / License #

Expiration Date of License

Note: In accordance with 310 CMR 15.018(2) this form must be submitted to the approving authority within 60 days of the date of field testing, and to the designer and the property owner with [Percolation Test Form 12](#).

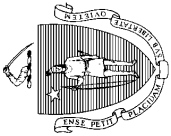


Commonwealth of Massachusetts
City/Town of

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

Field Diagrams

Use this sheet for field diagrams:



Commonwealth of Massachusetts
City/Town of

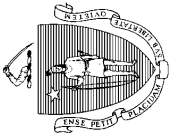
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

A. Facility Information

Hope Cemetery
 Owner Name _____
 119 Webster Street
 Street Address _____ Map/Lot # _____
 Worcester MA 01603
 City State Zip Code _____

B. Site Information

- (Check one) New Construction Upgrade Repair
- Soil Survey Available? Yes No
 If yes: UC-Davis Soil Web Source _____ 255A
 Soil Map Unit _____
 WindSOR / Udorthents _____
 Soil Name _____
 Loose Sandy Glaciofluvial Deposits _____
 Geologic/Parent Material _____
 Surficial Geological Report Available? Yes No
 If yes: _____
 Excessively Drained / Not Prime Farmland
 Soil Limitations _____
 Upland _____
 Landform _____
 If yes: _____
 Year Published/Source _____ Publication Scale _____ Map Unit _____
- Flood Rate Insurance Map
 Above the 500-year flood boundary? Yes No
 If Yes, continue to #5.
- Within a velocity zone? Yes No
 Within the 100-year flood boundary? Yes No
- Within a Mapped Wetland Area? Yes No
 MassGIS Wetland Data Layer: _____
 Wetland Type _____
- Current Water Resource Conditions (USGS): 11/2015
 Month/Year _____
 Range: Above Normal Normal Below Normal
- Other references reviewed: 421851071312601-MA-SSW 12 Southborough MA Well Data



Commonwealth of Massachusetts
City/Town of

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review (minimum of two holes required at every proposed primary and reserve disposal area)

Deep Observation Hole Number: TP#3 12-30-2015 1:30 PM Cloudy 34 Degrees
Date Time Weather

1. Location
Ground Elevation at Surface of Hole: _____ feet Latitude/Longitude: _____ / _____

Description of Location: _____

2. Land Use Wooded Lot Some Boulders 2%
(e.g., woodland, agricultural field, vacant lot, etc.) Surface Stones (e.g., cobbles, stones, boulders, etc.) Slope (%)
Wooded _____

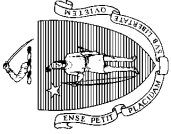
3. Distances from: Vegetation Landform Position on Landscape (SU, SH, BS, FS, TS)
Open Water Body Drainage Way Wetlands _____ feet
Property Line _____ feet Drinking Water Well Other _____ feet

4. Parent Material: Sandy Glaciofluvial Deposits Unsuitable Materials Present: Yes No

If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No If yes: _____ Depth Standing Water in Hole

Estimated Depth to High Groundwater: _____ inches _____ elevation



Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review (continued)

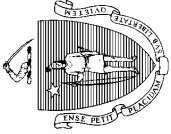
Deep Observation Hole Number: _____ TP #3

Depth (in.)	Soil Horizon/ Layer	Soil Matrix: Color- Moist (Munsell)	Redoximorphic Features		Soil Texture (USDA)	Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
			Depth	Color		Percent	Gravel			
0-100"	Fill	10 YR 3/3	-	-	SL	10	10	Massive	Massive	

Additional Notes:

Stumps, trash and debris found throughout total depth of test pit. Large 2 foot diameter boulder found.

Soil was a sandy loam 10 YR 3/3; approx. 10% gravel and 10% cobbles; no large boulders found



Commonwealth of Massachusetts
 City/Town of _____
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review (continued)

Deep Observation Hole Number: TP#4 **Date:** 12/30/2015 **Time:** 11:00 AM **Weather:** Cloudy 34 Degrees

1. Location
 Ground Elevation at Surface of Hole: _____ feet Latitude/Longitude: _____ / _____

2. Land Use **Wooded Lot** **Some Boulders** **2%**
 (e.g., woodland, agricultural field, vacant lot, etc.) Surface Stones (e.g., cobbles, stones, boulders, etc.) Slope (%)
Wooded _____ _____ _____

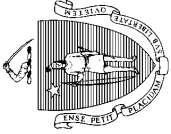
3. Distances from: **Open Water Body** **Drainage Way** **Wetlands** **Other**
 _____ _____ feet _____ feet _____ feet _____ feet
Property Line **Drinking Water Well** _____ feet _____ feet
 _____ feet _____ feet _____ feet _____ feet

4. Parent Material: _____ **Unsuitable Materials Present:** **Yes** **No**

If Yes: **Disturbed Soil** **Fill Material** **Impervious Layer(s)** **Weathered/Fractured Rock** **Bedrock**

5. Groundwater Observed: **Yes** **No** **If yes:** _____ **Depth Standing Water in Hole**

Estimated Depth to High Groundwater: _____ inches _____ elevation **Depth Weeping from Pit** _____



Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review (continued)

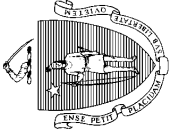
Deep Observation Hole Number: TP#4

Depth (in.)	Soil Horizon/ Layer	Soil Matrix: Color- Moist (Munsell)	Redoximorphic Features			Soil Texture (USDA)	Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
			Depth	Color	Percent		Gravel	Cobbles & Stones			
0-18"	Fill	10 YR 3/3				LS	10	10	Massive	Massive	
18"-36"	B	10YR 3/3				SAND	50	50	Loose	Friable	
36"-96"	C	10YR 3/3				SAND	50	50	Loose	Friable	

Additional Notes:

Some large 2 foot diameter boulders found.

Bony sandy material firm in place loose in hand.



Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

D. Determination of High Groundwater Elevation

1. Method Used:
- Depth observed standing water in observation hole
Obs. Hole # _____ inches
 - Depth weeping from side of observation hole
Obs. Hole # _____ inches
 - Depth to soil redoximorphic features (mottles)
Obs. Hole # _____ inches
 - Depth to adjusted seasonal high groundwater (S_h) (USGS methodology)
Obs. Hole # _____ inches

Index Well Number _____ Reading Date _____

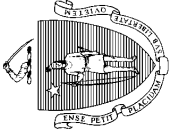
$$S_h = S_c - [S_r \times (OW_c - OW_{max}) / OW_r]$$

Obs. Hole # _____ S_c _____ S_r _____ OW_c _____ OW_{max} _____ OW_r _____ S_h _____

Obs. Hole # _____ S_c _____ S_r _____ OW_c _____ OW_{max} _____ OW_r _____ S_h _____

E. Depth of Pervious Material

1. Depth of Naturally Occurring Pervious Material
- a. Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system?
 Yes No
 - b. If yes, at what depth was it observed?
Upper boundary: _____ inches
Lower boundary: _____ inches
 - c. If no, at what depth was impervious material observed?
Upper boundary: _____ inches
Lower boundary: _____ inches



Commonwealth of Massachusetts
City/Town of

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

F. Board of Health Witness

Name of Board of Health Witness

Board of Health

G. Soil Evaluator Certification

I certify that I am currently approved by the Department of Environmental Protection pursuant to 310 CMR 15.017 to conduct soil evaluations and that the above analysis has been performed by me consistent with the required training, expertise and experience described in 310 CMR 15.017. I further certify that the results of my soil evaluation, as indicated in the attached Soil Evaluation Form, are accurate and in accordance with 310 CMR 15.100 through 15.107.

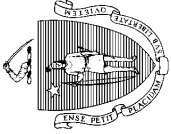
Brian Paula #SE13692
Signature of Soil Evaluator

2015-12-30
Date

Typed or Printed Name of Soil Evaluator / License #

Expiration Date of License

Note: In accordance with 310 CMR 15.018(2) this form must be submitted to the approving authority within 60 days of the date of field testing, and to the designer and the property owner with [Percolation Test Form 12](#).

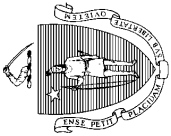


Commonwealth of Massachusetts
City/Town of

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

Field Diagrams

Use this sheet for field diagrams:



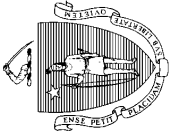
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

A. Facility Information

Hope Cemetery
 Owner Name _____
 119 Webster Street
 Street Address _____ Map/Lot # _____
 Worcester MA 01603
 City State Zip Code _____

B. Site Information

- (Check one) New Construction Upgrade Repair UC-Davis Soil Web Source If yes: 651 Soil Map Unit
- Soil Survey Available? Yes No
 Udorthents _____
 Soil Name _____
 Loose Sandy Glaciofluvial Deposits _____
 Geologic/Parent Material _____
 Surficial Geological Report Available? Yes No
 Excessively Drained / Not Prime Farmland _____
 Soil Limitations _____
 Upland _____
 Landform _____
 If yes: _____
 Year Published/Source _____ Publication Scale _____ Map Unit _____
- Flood Rate Insurance Map
 Above the 500-year flood boundary? Yes No
 If Yes, continue to #5.
- Within a velocity zone? Yes No
 Within the 100-year flood boundary? Yes No
- Within a Mapped Wetland Area? Yes No
 MassGIS Wetland Data Layer: _____
 Wetland Type _____
- Current Water Resource Conditions (USGS): 11/2015
 Month/Year _____
 Range: Above Normal Normal Below Normal
- Other references reviewed: 421851071312601-MA-SSW 12 Southborough MA Well Data



Commonwealth of Massachusetts
City/Town of

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review (minimum of two holes required at every proposed primary and reserve disposal area)

Deep Observation Hole Number: TP#5 Date: 12-30-2015 Time: 10:30 AM Weather: Cloudy 34 Degrees

1. Location
Ground Elevation at Surface of Hole: _____ feet Latitude/Longitude: _____ / _____

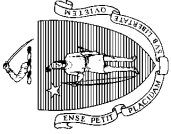
Description of Location: _____

2. Land Use
Wooded Lot (e.g., woodland, agricultural field, vacant lot, etc.) _____
Wooded Vegetation _____
Some Boulders _____
Surface Stones (e.g., cobbles, stones, boulders, etc.) _____
Slope (%) _____
2%

3. Distances from: _____
Open Water Body _____ feet
Property Line _____ feet
Landform _____
Drainage Way _____ feet
Drinking Water Well _____ feet
Wetlands _____
Other _____
Position on Landscape (SU, SH, BS, FS, TS)

4. Parent Material: _____
Sandy Glaciofluvial Deposits _____
Unsuitable Materials Present: Yes No
If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No
If yes: _____
Estimated Depth to High Groundwater: _____ inches
Depth Weeping from Pit _____
Depth Standing Water in Hole _____
elevation



Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

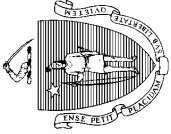
C. On-Site Review (continued)

Deep Observation Hole Number: _____ TP #5

Depth (in.)	Soil Horizon/ Layer	Soil Matrix: Color- Moist (Munsell)	Redoximorphic Features		Soil Texture (USDA)	Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
			Depth	Color		Percent	Gravel			
0-12"	Fill	10 YR 3/3			LS	10	10	Massive	Massive	
12"-60"	B	10YR 6/4			Sand	50	50	Loose	Friable	
60"-100"	C	10YR 6/4			Sand	0	5	Weak Blocky	Friable	

Additional Notes:

No groundwater or mottling observed, B layer dense bony material firm in place loose in hand. C layer fine sand with 5% cobbles.



Commonwealth of Massachusetts
 City/Town of **Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal**

C. On-Site Review (continued)

Deep Observation Hole Number: TP#6 **Date:** 12/30/2015 **Time:** 10:00 AM **Weather:** Cloudy 34 Degrees

1. Location
 Ground Elevation at Surface of Hole: _____ feet Latitude/Longitude: _____ / _____

2. Land Use **Wooded Lot** **Some Boulders** **2%**
 (e.g., woodland, agricultural field, vacant lot, etc.) Surface Stones (e.g., cobbles, stones, boulders, etc.) Slope (%)
Wooded _____

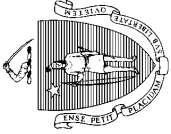
3. Distances from: **Landform** **Position on Landscape (SU, SH, BS, FS,**
 Open Water Body **Drainage Way** **Wetlands** _____
 _____ feet _____ feet _____ feet
 Property Line **Drinking Water Well** **Other** _____
 _____ feet _____ feet _____ feet

4. Parent Material: _____ **Unsuitable Materials Present:** **Yes** **No**

If Yes: **Disturbed Soil** **Fill Material** **Impervious Layer(s)** **Weathered/Fractured Rock** **Bedrock**

5. Groundwater Observed: **Yes** **No** **If yes:** _____ **Depth Standing Water in Hole**
 _____ inches _____ elevation

Estimated Depth to High Groundwater: _____ inches



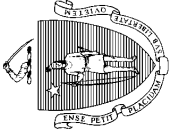
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review (continued)

Deep Observation Hole Number: _____ TP#6

Depth (in.)	Soil Horizon/ Layer	Soil Matrix: Color- Moist (Munsell)	Redoximorphic Features			Soil Texture (USDA)	Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
			Depth	Color	Percent		Gravel	Cobbles & Stones			
0-30"	Fill	10 YR 3/3				LS	10	10	Massive	Massive	
30"-96"	B	10YR 6/4				Fine Loamy Sand	0	2	Weak Blocky	Friable	

Additional Notes:



Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

D. Determination of High Groundwater Elevation

1. Method Used:
- Depth observed standing water in observation hole
Obs. Hole # _____ inches
 - Depth weeping from side of observation hole
Obs. Hole # _____ inches
 - Depth to soil redoximorphic features (mottles)
Obs. Hole # _____ inches
 - Depth to adjusted seasonal high groundwater (S_h) (USGS methodology)
Obs. Hole # _____ inches

Index Well Number _____ Reading Date _____

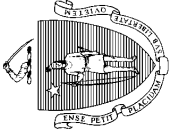
$$S_h = S_c - [S_r \times (OW_c - OW_{max}) / OW_r]$$

Obs. Hole # _____ S_c _____ S_r _____ OW_c _____ OW_{max} _____ OW_r _____ S_h _____

Obs. Hole # _____ S_c _____ S_r _____ OW_c _____ OW_{max} _____ OW_r _____ S_h _____

E. Depth of Pervious Material

1. Depth of Naturally Occurring Pervious Material
- a. Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system?
 Yes No
 - b. If yes, at what depth was it observed?
Upper boundary: _____ inches Lower boundary: _____ inches
 - c. If no, at what depth was impervious material observed?
Upper boundary: _____ inches Lower boundary: _____ inches



Commonwealth of Massachusetts
City/Town of

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

F. Board of Health Witness

Name of Board of Health Witness

Board of Health

G. Soil Evaluator Certification

I certify that I am currently approved by the Department of Environmental Protection pursuant to 310 CMR 15.017 to conduct soil evaluations and that the above analysis has been performed by me consistent with the required training, expertise and experience described in 310 CMR 15.017. I further certify that the results of my soil evaluation, as indicated in the attached Soil Evaluation Form, are accurate and in accordance with 310 CMR 15.100 through 15.107.

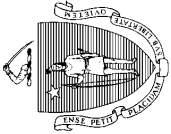
Brian Paula #SE13692
Signature of Soil Evaluator

2015-12-30
Date

Typed or Printed Name of Soil Evaluator / License #

Expiration Date of License

Note: In accordance with 310 CMR 15.018(2) this form must be submitted to the approving authority within 60 days of the date of field testing, and to the designer and the property owner with [Percolation Test Form 12](#).

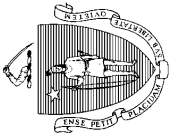


Commonwealth of Massachusetts
City/Town of

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

Field Diagrams

Use this sheet for field diagrams:



Commonwealth of Massachusetts
City/Town of

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review (minimum of two holes required at every proposed primary and reserve disposal area)

Deep Observation Hole Number: TP#7 12-30-2015 9:30 AM Cloudy 34 Degrees
Date Time Weather

1. Location
Ground Elevation at Surface of Hole: _____ feet Latitude/Longitude: _____ / _____

Description of Location: _____

2. Land Use Wooded Lot _____ Some Boulders _____ 2%
(e.g., woodland, agricultural field, vacant lot, etc.) Surface Stones (e.g., cobbles, stones, boulders, etc.) Slope (%)
Wooded _____ _____

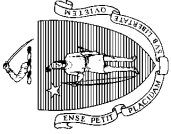
3. Distances from: _____ _____ _____ _____ _____
Vegetation Landform Position on Landscape (SU, SH, BS, FS, TS)
Open Water Body Drainage Way Wetlands _____ _____ _____
feet feet feet _____ _____ _____
Property Line Drinking Water Well Other _____ _____ _____
feet feet feet _____ _____ _____

4. Parent Material: Sandy Glaciofluvial Deposits _____ Unsuitable Materials Present: Yes No

If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No If yes: _____ _____ _____
Depth Weeping from Pit Depth Standing Water in Hole

Estimated Depth to High Groundwater: _____ inches _____ elevation



Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

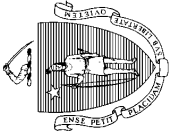
C. On-Site Review (continued)

Deep Observation Hole Number: _____ TP #7

Depth (in.)	Soil Horizon/ Layer	Soil Matrix: Color- Moist (Munsell)	Redoximorphic Features		Soil Texture (USDA)	Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
			Depth	Color		Percent	Gravel			
0-24"	Fill	10 YR 3/3			LS	10	10	Massive	Massive	
24"-36"	B	Gley 3/10GY			SL	2	2	Massive	Friable	
36"-96"	C	10YR 5/4			SL	10	2	Massive	Friable	

Additional Notes:

C layer contained approx. 10% of 6" diameter stones, somewhat bony.



Commonwealth of Massachusetts
 City/Town of **Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal**

C. On-Site Review (continued)

Deep Observation Hole Number: TP#8 **Date:** 12/30/2015 **Time:** 9:00 AM **Weather:** Cloudy 34 Degrees

1. Location
 Ground Elevation at Surface of Hole: _____ feet Latitude/Longitude: _____ / _____

2. Land Use **Wooded Lot** **Some Boulders** **2%**
 (e.g., woodland, agricultural field, vacant lot, etc.) Surface Stones (e.g., cobbles, stones, boulders, etc.) Slope (%)

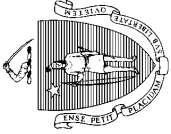
Wooded Vegetation **Landform** **Position on Landscape (SU, SH, BS, FS, Wetlands)**
Distances from: **Open Water Body** **Drainage Way** **Wetlands** **Other**
 _____ feet _____ feet _____ feet _____ feet _____ feet
Property Line **Drinking Water Well** **Other**
 _____ feet _____ feet _____ feet

4. Parent Material: _____ **Unsuitable Materials Present:** Yes No

If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No **If yes:** _____ **Depth Standing Water in Hole**
 _____ inches _____ elevation

Estimated Depth to High Groundwater: _____ inches



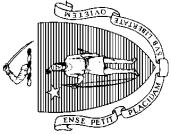
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review (continued)

Deep Observation Hole Number: TP#8

Depth (in.)	Soil Horizon/ Layer	Soil Matrix: Color- Moist (Munsell)	Redoximorphic Features			Soil Texture (USDA)	Coarse Fragments % by Volume			Soil Consistence (Moist)	Soil Structure	Other	
			Depth	Color	Percent		Gravel	Cobbles & Stones					
0-6"	A	10YR 3/3				SL	0	0	0	0	Granular	Friable	
6"-30"	B	10YR 5/6				LS	30	30	30	30	Massive	Friable	
30"-96"	C	10YR 6/3				LS	15	5	5	5	Massive	Friable	

Additional Notes:



Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

D. Determination of High Groundwater Elevation

1. Method Used:
- Depth observed standing water in observation hole
Obs. Hole # _____ inches
 - Depth weeping from side of observation hole
Obs. Hole # _____ inches
 - Depth to soil redoximorphic features (mottles)
Obs. Hole # _____ inches
 - Depth to adjusted seasonal high groundwater (S_h) (USGS methodology)
Obs. Hole # _____ inches

Index Well Number _____ Reading Date _____

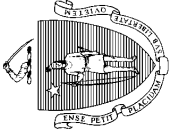
$$S_h = S_c - [S_r \times (OW_c - OW_{max}) / OW_r]$$

Obs. Hole # _____ S_c _____ S_r _____ OW_c _____ OW_{max} _____ OW_r _____ S_h _____

Obs. Hole # _____ S_c _____ S_r _____ OW_c _____ OW_{max} _____ OW_r _____ S_h _____

E. Depth of Pervious Material

1. Depth of Naturally Occurring Pervious Material
- a. Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system?
 Yes No
 - b. If yes, at what depth was it observed?
Upper boundary: _____ inches
Lower boundary: _____ inches
 - c. If no, at what depth was impervious material observed?
Upper boundary: _____ inches
Lower boundary: _____ inches



Commonwealth of Massachusetts
City/Town of

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

F. Board of Health Witness

Name of Board of Health Witness

Board of Health

G. Soil Evaluator Certification

I certify that I am currently approved by the Department of Environmental Protection pursuant to 310 CMR 15.017 to conduct soil evaluations and that the above analysis has been performed by me consistent with the required training, expertise and experience described in 310 CMR 15.017. I further certify that the results of my soil evaluation, as indicated in the attached Soil Evaluation Form, are accurate and in accordance with 310 CMR 15.100 through 15.107.

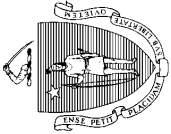
Brian Paula #SE13692
Signature of Soil Evaluator

2015-12-30
Date

Typed or Printed Name of Soil Evaluator / License #

Expiration Date of License

Note: In accordance with 310 CMR 15.018(2) this form must be submitted to the approving authority within 60 days of the date of field testing, and to the designer and the property owner with [Percolation Test Form 12](#).



Commonwealth of Massachusetts
City/Town of

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

Field Diagrams

Use this sheet for field diagrams:

APPENDIX

D

NATIONAL REGISTER OF HISTORIC PLACES FORM

(Rev. 10-90)

United States Department of the Interior
National Park Service

National Register of Historic Places
Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in How to Complete the National Register of Historic Places Registration Form (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

historic name HOPE CEMETERY

other names/site number _____

2. Location

street & number 119 WEBSTER STREET N/A not for Publication

city or town WORCESTER N/A vicinity

state MASSACHUSETTS code MA county WORCESTER code 027 zip code 01603

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1986, as amended, I hereby certify that this nomination request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property meets does not meet the National Register Criteria. I recommend that this property be considered significant nationally statewide locally. (See continuation sheet for additional comments.)

Judith B. McDonough

11/13/97
Date

Signature of certifying official/Title Judith B. McDonough, Executive Director
Massachusetts Historical Commission, State Historic Preservation Officer

State or Federal agency and bureau _____

In my opinion, the property meets does not meet the National Register criteria. (See continuation sheet for additional Comments.)

Signature of certifying official/Title _____

Date _____

State or Federal agency and bureau _____

4. National Park Service Certification

I, hereby certify that this property is:

entered in the National Register

See continuation sheet.

determined eligible for the

National Register

See continuation sheet.

determined not eligible for the

National Register

removed from the

National Register

other (explain): _____

Signature of the Keeper _____

Date of Action _____

Hope Cemetery
Name of Property

Worcester, Massachusetts
County and State

5. Classification

Ownership of Property

(Check as many boxes as apply)

(Check only one box)

- private
- public-local
- public-State
- public-Federal

- building(s)
- district
- site
- structure
- object

Number of Resources within Property

(Do not include previously listed resources in the count.)

Contributing	Noncontributing	
16	3	buildings
1		sites
7		structures
13		objects
37	3	Total

Name of related multiple property listing

(Enter "N/A" if property is not part of a multiple property listing.)

N/A

Number of contributing resources previously listed in the National Register

0

6. Function or Use

Historic Functions

(Enter categories from instructions)

FUNERARY: Cemetery

Current Functions

(Enter categories from instructions)

FUNERARY: Cemetery

7. Description

Architectural Classification

(Enter categories from instructions)

N/A

Materials

(Enter categories from instructions)

foundation _____
walls _____
roof _____
other _____

Narrative Description

(Describe the historic and current condition of the property on one or more continuation sheets.)

(See continuation sheet)

Hope Cemetery

Name of Property

Worcester, Massachusetts

County and State

8. Statement of Significance

Applicable National Register Criteria

(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

- A** Property is associated with events that have made a significant contribution to the broad patterns of our history.
- B** Property is associated with the lives of persons significant in our past.
- C** Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- D** Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations

(Mark "x" in all the boxes that apply.)

Property is:

- A** owned by religious institution or used for religious purposes.
- B** removed from its original location.
- C** a birthplace or grave.
- D** a cemetery.
- E** a reconstructed building, object, or structure.
- F** a commemorative property.
- G** less than 50 years of age or achieved significance within the past 50 years.

Narrative Statement of Significance

(Explain the significance of the property on one or more continuation sheets.)

9. Major Bibliographical References

(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous documentation on file (NPS):

- preliminary determination of individual listing (36 CFR 67) has been requested
- previously listed in the National Register
- previously determined eligible by the National Register
- designated a National Historic Landmark
- recorded by Historic American Buildings Survey # _____
- recorded by Historic American Engineering Record # _____

Areas of Significance

(Enter categories from Instructions)

- Art
- Architecture
- Community Planning and Development
- Landscape Architecture
- Social History

Period of Significance

1854-1947

Significant Dates

1854

Significant Person

(Complete if Criterion B is marked above)

N/A
(See continuation sheet)

Cultural Affiliation

N/A

Architect/Builder

Earle, Stephen: Earle & Fuller
Fuller & Delano
(See continuation sheet)

Primary location of additional data:

- State Historic Preservation Office
- Other State Agency
- Federal agency
- Local government Library, Town Hall
- University
- Other

Name of repository:
Hope Cemetery Archives
Worcester Historical Museum

Hope Cemetery
Name of Property

Worcester, Massachusetts
County and State

10. Geographical Data

Acreage of Property ca. 170 acres

UTM References See continuation sheet.

(Place additional UTM references on a continuation sheet)

1. 19 Zone	266300 Easting	4680060 Northing	3. 19 Zone	266880 Easting	4679590 Northing
2. 19 Zone	266920 Easting	4679880 Northing	4. 19 Zone	267000 Easting	4679340 Northing

See continuation sheet

Verbal Boundary Description

(Describe the boundaries of the property on a continuation sheet.)

Boundary Justification

(Explain why the boundaries were selected on a continuation sheet.)

11. Form Prepared By

name/title Minxie Fannin and Monique Lehner, Preservation Consultant, with Betsy Friedberg, MHC, National Register Director

organization Massachusetts Historical Commission date September 1997

street & number 220 Morrissey Boulevard telephone 617-727-8470

city or town Boston state MA zip code 02125

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets

Maps

A **USGS map** (7.5 or 15 minute series) indicating the property's location.

A **sketch map** for historic districts and properties having large acreage or numerous resources.

Photographs

Representative **black and white photographs** of the property.

Additional items (Check with the SHPO or FPO for any additional items)

Property Owner

(Complete this item at the request of the SHPO or FPO.)

name City of Worcester

street & number 455 Main Street telephone _____

city or town Worcester state MA zip code 01608

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 et seq.).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 18.1 hours per response including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, P.O. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reductions Project (1024-0018), Washington, DC 20503.

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Worcester (Worcester Co),
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SECTION 7: NARRATIVE DESCRIPTION

Hope Cemetery, established in 1854, is part of the pastoral cemetery movement which was inspired by romantic perceptions of nature, art, national identity and the melancholy theme of death. This movement drew upon innovations in burial ground design in England and France -- in particular the Parisian Père Lachaise Cemetery, established in 1804 and developed according to an 1815 plan. Led by Mount Auburn Cemetery in Cambridge, Massachusetts, (1831), America's pastoral cemeteries were typically established, as was Hope Cemetery, around elevated view sites on the outskirts of the city. To achieve naturalistic effects, gracefully curved pathways and watercourses were adapted to rolling land forms. Contrast and variation were employed in the massing of trees and plants as well as the arrangement of ornamental features.

Situated near the top of the hill on Webster Street, immediately south of the Webster Square section of the city of Worcester, Hope Cemetery is a carefully planned cohesive landscape whose overall character is defined by the relationship of features within it. The cemetery occupies a rolling area of land between Kettle Brook to the south, Curtis Ponds to the west and the Middle River on the north. The siting of roads and paths, trees and shrubs, the placing and scale of mausoleums, and the integration of the earlier burial grounds all reflect a sure sense of design, not only in 1854 but over the ensuing years. Over the years since its inception, Hope's terrain has been carefully worked to create views and vistas which enhance the natural beauty of the site. Entry through the 1917 Solomon Nixon Gates (west) from Webster Street brings one up a slight grade past the impressive memorials and mausoleums which stand north of the entrance, facing the well-traveled street. From this elevated point, a broad view of the southwest sector of the cemetery can be seen, along with the sweep of the granite wall as it marches south down Webster Street to the gates (1936) currently in use. One can then continue east along the cemetery's Chestnut Avenue, which follows the lower edge

(continued)

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of the ridgeline, traversing the northern half of the site from northwest to southeast. (To alleviate confusion, all references to roads within Hope Cemetery will be underlined.) This land form is the major height of land in the cemetery. Continuing along Chestnut Street on to Walnut Avenue one reaches Highland Avenue, a short road lined with magnificent memorials ending in a superb view to the east across the Middle River plain to College Hill with its towers of Holy Cross College. The ridge falls away quite steeply to the north where the impressive mausoleum circle (Section 12) stands in its lee. As one travels further north from the circle, the land descends more gradually toward the Middle River which lies just outside the north boundary. The office and barn occupy the northwest corner of the cemetery on the downslope of the north side of the ridge. The southwest quadrant of the cemetery is more level and contains the active sections. The southeast segment again rises gradually with views to central Worcester and nearby Interstate 290.

The cemetery is enclosed on the west by a granite wall and a granite and iron fence. Much of the remaining boundary is delineated by steel mesh fencing with metal poles. A portion of the north boundary along the Middle River is marked with an iron fence.

The unusual size and balanced beauty of Hope Cemetery, taking full advantage of the hilly terrain, points to some type of landscape designer, still to be identified. The winding roads, the hills and vistas, especially the stunning view to the stone towers of Holy Cross College, retain the look and feel of the rural cemetery. Hope Cemetery has a high degree of integrity as all the different sections of the cemetery are carefully planned, almost all the current burials are interred in a new section which does not impact the older areas and there is unusually little commingling of new gravestones with old. In addition, many components of the original cemetery remain, such as the road and pathway signs.

There are a number of specimen trees, the most exceptional being three tree champion European

(continued)

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Beeches; with a DBH (Diameter at Breast Height) of 55" to 59." They are the largest trees in the Cemetery. (Photo #5, Site Plan #41) There are also tree champion Norway Maples, Red Maples, Sugar Maples, Sweet Birches, Katsuras, Coast White Cedars, American Beeches, White Ash, White Oaks, Scarlet Oaks and Red Oaks. The majority of the trees in the cemetery are Sugar Maples and Norway Maples. (Warren P. Leach, "Hope Cemetery: Horticultural Survey and Tree Inventory," Jan. 1996)

The lots for the City of Worcester's earlier burial grounds, the remains and gravestones of which were moved to Hope Cemetery, are adroitly integrated into the overall cemetery plan. There are also sections devoted to the Grand Army of the Republic (the Memorial is composed of a massive tripod of three black cannon, 1892, Site Plan #29), Spanish War Veterans, World War Veterans, Societies such as the Masons, Odd Fellows (Site Plan #36, 37), Red Men, Syrian Brotherhood and several churches and synagogues.

There are two major buildings at Hope Cemetery. The first is the somewhat altered Office Building with storage and machine shops below. It was originally built in 1882, enlarged and improved in 1889, with a vault added in 1930. (Site Plan #2) The barn (1889, Photo #14, Site Plan #3), which replaced the earlier structure of 1876, retains its architectural integrity. It is a fine Stick Style structure, characterized by its verticality, angularity, steeply pitched roof and cupola, and overhanging eaves which are pierced with dormers. The Queen Anne Style is seen in the shaped shingles on the second floor which wrap around the corners of the structure. Two former buildings in the cemetery were the Curtis Chapel, dedicated in 1891 and taken down in 1961 and the Superintendent's house, erected in 1895 and removed after 1940.

There is also a large, three-chambered granite Receiving Tomb (1887, Site Plan #25), designed by Fuller & Delano. This is the third receiving tomb to be constructed in the cemetery; the two earlier ones, no longer extant, were built in 1854 and 1872.

(continued)

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Handsome walls border parts of the cemetery. The 1867 Annual Report, (City Doc. No. 21, p. 150) reports that the Commissioners "expressed the intention of entering upon the construction of a 'tasteful and enduring fence' with a spacious entrance.....early in the season, they engaged Mr. Earle [Stephen C. Earle, 1839-1913] an architect of approved reputation, to furnish a plan of a suitable gateway (not extant)...." The Earle Gothic Revival fence (Photo #2, Site Plan #21) is composed of wrought iron work, executed by "Mr. H. C. Fish," on a granite curbing, with cut granite posts, by "Mr. A. G. Mann," (1870 Annual Report, City Doc. No. 24, p. 212) exhibiting incised trefoils. Stephen Earle was a well respected Worcester architect particularly noted for his Worcester churches: St. Mark's, St. Matthew's, St. John's Episcopal, and Lincoln Square Baptist. (Margaret H. Floyd: Society of Architectural Historians Worcester Tour, March 27, 1976) Earle designed the 1891 Curtis Chapel for Hope Cemetery, no longer extant. Continuing along Webster Street towards Hope Avenue to the south is the WPA granite wall with granite posts capped with low-pitched pyramidal tops (Photo #3, Site Plan #22), constructed in 1936.

Joining the 19th and 20th century walls are the Solomon Nixon Gates (Photo #1, Site Plan #23) presented to the cemetery in 1917 by Mrs. Nixon in memory of her husband. Two stately granite arches trimmed with brownstone frame the wrought iron gates to create an imposing yet welcoming entrance to Hope Cemetery.

At the onset of Hope Cemetery's establishment, the Cemetery's Commissioners declared in 1857, that it was "becoming a beautiful and attractive place of sepulture...." (Annual Report, 1858, City Doc. No. 12, p. 13). The philosophy of Dr. Jacob Bigelow, the founder of Mount Auburn Cemetery in Cambridge, Massachusetts, who emphasized nature with beautifully landscaped grounds (David Sloane, The Last Great Necessity, p. 45) influenced the Hope Cemetery's founders in their endeavor of creating a similar garden cemetery for the city of Worcester. Paths were laid out and named for trees (Maple, Sycamore, Chestnut, Pine, Cedar, Beech, Hemlock, Ash, Locust and others), picturesque views of "undulating surfaces" and gentle treed slopes (Photo #4 and #5) offered mourners scenes of

(continued)

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idyllic peace and tranquillity. Initially, simple tombstones and monuments honored the dead. By the end of the 19th century larger, more ornamental, more imposing structures were built as resting places for the departed and funerary architecture now included mausoleums and large monuments.

Hope Cemetery contains a remarkable array of late 19th and early 20th century mausoleums which reflect most of the revival styles of this specialized type of funerary architecture. The word "mausoleum" is derived from the Greek "mausöleion", which was the magnificent tomb of Mausölos, king of Caria, erected in 353 BC at Halicarnassus in Asia Minor by his Queen Artemesia. It is no longer extant (today it would have been in the modern city of Budrum, Turkey) but archeological historians have presented us with a conjectural drawing (World Architecture, Fig. 136, p. 54) based on writings of Pliny which shows a columnar rectangular enclosure above a podium, surmounted by a frieze (parts of it are in the British Museum), a pyramidal roof, and the figure of Mausolus riding a four-horse chariot. This vanished structure, one of the seminal buildings in the world of funerary monuments, influenced their designs for centuries. Previously, the Greeks and the Hellenes had used an unpretentious slab or stele. Later, a stone sarcophagus, already used in the Orient, appeared, to be followed by temple forms which served as a setting for relief sculpture. (Kimball and Edgell, p. 94-95). Some of the architectural and decorative elements of this Hellenistic monument are seen in some of the mausoleums of Hope Cemetery as in many other mid-19th century garden cemeteries in the United States thus creating a link to the classic past with a graphic history of sepulchral architecture in New England

The prevalent revival styles in memorial art, the Classical, the Gothic and the Egyptian are represented at Hope Cemetery with outstanding examples. The most popular and often used revival style is based on classical elements, be they Greek, Roman, Hellenistic, or Renaissance. The most imposing structure designed in this mode is the magnificent Orlando W. Norcross (1829-1920) Mausoleum (1909, Section 80, Photo #6, Site Plan #14), a Roman Doric peripteral temple-tomb having a row of free-standing columns on all four sides on a stylobate sited on an imposing site at the crest of

(continued)

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a gentle hill. The classical vocabulary includes an entablature composed of triglyphs and metopes, and a plain pediment. A younger brother, James Atkinson Norcross (1831-1903) is also commemorated in Hope Cemetery, with its only rib-domed Renaissance Revival mausoleum which is fronted with a shallow arched pediment. (Section 46, Photo #8, Site Plan #13) This stone ashlar structure, chamfered at the corners, was constructed in 1903, the year of James Norcross' death.

Another fine example of the classical sepulchral monument is the Bigelow and Stevens Mausoleum (1916, Section 12, Site Plan #5), an Ionic prostyle (temple with shallow front portico) templed form with a plain entablature which creates an appropriate background for the lettering of the names. As with the O. W. Norcross monument, it is set on a low podium, thus reinforcing its classical temple form. Further classical examples include the Hanff Mausoleum (1903, Section 34, Site Plan #7) with shallow wings to the sides, a low pitched gabled roof and a fine pedimented entrance flanked with Doric pilasters whose design seem to emanate from 18th century English pattern books. It is partially set in the hillside, a not uncommon feature in mausoleums in garden cemeteries. (See Laurel Hill mausoleums, Philadelphia in Kenneth T. Jackson and Camilo Jose Vergara, Silent Cities, p. 21) Another mausoleum similarly sited is the J. K. Warren Monument (c. 1924, Section 2, Site Plan #19) exhibiting a stark, severe classicism evidenced by the pilaster framing the barely projecting central pavilion. Ornamentation is at a minimum, fine proportions and horizontal banding of the stones endow the structure with strength.

At times, only the sculptural decoration such as the elegant iron anthemion gracing the entrance of the Albert A. Morton Mausoleum (1917, Section 34, Site Plan #12) identifies its classical derivation. This particular monument, enveloped with Richardsonian troglodytic stones, is a powerful and impressive presence.

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Besides characteristic classical ornamentation, Hope Cemetery is also replete with funerary iconographic symbols within traditional forms. The Thomas Prince Mausoleum (1910, Site Plan #15), a rough cut ashlar pedimented structure with Doric columns in antis has a fine downturned torch design, emblem of death and devastation, (Henriette M. Forbes, "Symbolic Cemetery Gates in New England," 1933, reprinted in Markers VII, p. 7), on the entrance. This same motif boldly carved by Solomon Willard in 1841 is on the side pylons of the Granary Burying Ground Cemetery gate in Boston.

The Egyptian Revival was initiated early in the nineteenth century when it was popularized in books published by French scholars Napoleon brought along on his Egyptian campaign of 1789-99 (Description de l'Egypte, Benedikt Taschen, 1994 reprint of Napoleon Bonaparte's 1802 Edition). Obelisks, sphinxes, and pyramids were made familiar by the dissemination of literature, photographs and paintings on this exotic subject. Used as a furniture and decorative art style and by architects for prisons and cemetery gates (for their association with death and rebirth), it was not until the end of nineteenth century that Egyptian Revival temple tombs (mausoleums) were constructed as funerary structures. Hope Cemetery has two fine Egyptian Revival mausoleums, the James Edwin Wesson (1910, Section 12, Photo #7, Site Plan #20) and the Henry Francis Harris Mausoleum (1915, Section 81, Site Plan #8). The former, a solid structure with battered walls, a typical Egyptian Revival cavetto (concave) cornice embellished with a winged orb and foliated capitals on its columns in antis, is an archetypal example of the style. The Henry Francis Harris Mausoleum exhibits most of the above revival features, the foliated columns in antis, battered walls and a cavetto cornice but here, within a classical format, the flat roof has a slight pediment and the front area is articulated by a fine curved classical exedra, inviting strollers to stop, rest and contemplate. The Marcy Mausoleum (1901, Section 1, Photo #9, Site Plan #11) is the only monument in Hope Cemetery with an architectural attribution. It was designed by the Worcester architects Albert A.

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Barker [1853-1905] and Walter B. Nourse [1854-1906].) The family tomb, erected by Mr. Frank M. Marcy in memory of his parents, was described in the May 1903 Worcester Magazine as a building whose design is "classic Greek, simple and dignified, without any pretensions to ornate ornamentation, yet is tasteful and pleasing in appearance."(p. 164) The ornamentation is not pretentious, but is more exuberant than in other Hope Cemetery tombs. White marble doors, light granite fluted pilasters, double colonettes and entablature create strong contrasts with the dark granite walls. Textural differentiations are also seen in the richly carved composite capitals above the smooth drums of the double colonettes of the facade. Further enrichments include relief carvings of wreaths on the plinth of the double columns, the denticulated row under the eaves, the pedimented gable piercing the hip roof and the classical free-standing urns fronting the facade. It is one of the most elaborate tombs in the cemetery, hardly "simple", but "dignified" and a most important historical and architectural component of Hope Cemetery.

The Gothic Revival is represented by the magnificent Houghton Mausoleum (1901, Photo #10, Site Plan #9). Its restrained interpretation of medieval structural features and its verticality endow it with quiet dignity amid its classical and Egyptian neighbors with their trabeated horizontal forms in Section 12. Conserved in 1994, the rusticated facade is composed of a gothic entrance set within a slightly projecting gabled pavilion which reiterates the main gable lit by a trefoil window. Vestigial buttresses flank the walls and low side projections; the apse end is pierced by lancet windows filled with stained glass. It is a miniature gothic chapel, picturesque in form, romantic in its evocative quality, and superb in its architectural sense of Christian appropriateness.

One of the outstanding family plots in the cemetery is that of Loring Coes (Photo #11, Site Plan #27), designed in 1874. There is a fine white marble statue of a young maiden holding a wreath (1906), by the noted local sculptor, Andrew O'Connor, Sr. The metalwork of the fence and gate are reminiscent of the work of Samuel Yellin.

(continued)

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Other noteworthy statues and monuments include two unusually well executed white bronzes. The first is the Thomas S. Sloan (1832-1908) Monument, 1909, of "Hope." This allegorical figure goes back to the Renaissance and is always portrayed holding an anchor with eyes raised to the heavens. The second white bronze, "Memory," a maiden holding a swag of flowers, is the Parlin Monument (David Parlin, d. Jan 12, 1915; Kate Miles Parlin 1836-1916, Photo #12, Site Plan #32).

An additional memorial, an exedra of high artistic quality, is the granite Pfaffman Monument (Philip Martin Pfaffman 1855-1936; Helen Butler Pfaffman 1865-1927, Photo #13, Site Plan #38). The fine bronze insert is signed by the architect, W. D. Kenneth, and the sculptor, J. Novelli.

Local sculptors known to have works in Hope Cemetery are the already mentioned Andrew O'Connor, Sr. (1847-1924) and his sculptor son, Andrew O'Connor, Jr. (1874-1941). Andrew Sr. was the sculptor for the "Fisher Boy" (1915) in Worcester's Elm Park. Andrew Jr., the executor of the bronze bas relief of Orlando Whitney Norcross at the Worcester City Hall, was the sculptor of the graceful Whittall Monument (Matthew John Whittall d. Oct. 31, 1922, Site Plan #40) in Hope Cemetery. Arthur B. Hewett sculpted the appealing Coombs Firemen's Memorial (1896) of Chief Simon E. Coombs. The sculptor, Bruce Wilder Saville, is also represented at Hope Cemetery.

Archaeological Description

Prehistoric sites have not been identified within the boundaries of the Hope Cemetery, however, sites may be present. Two known prehistoric sites have been recorded in the general area (within one mile). Locational characteristics for the cemetery are also favorable for many types of prehistoric sites. The area includes several well drained level to moderately sloping locales broadly surrounded by the Middle River in the north, Kettle Brook to the south, and Curtis Ponds to the west. Given the above factors, the size of the cemetery (approximately 170 acres) and the impacts from grave excavations, a moderate to high potential exists that sites are present.

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There is also a high potential for locating historic archaeological resources in the cemetery locale. Early graves including the Nash (1840) and Gates (1850) burials, incorporated into the later post 1854 cemetery may represent family plots for farmsteads in the area prior to 1854. This information also indicates the potential for recovering structural remains related to farm houses, outbuildings and occupational related features (trash pits, privies, wells) associated with the farms. Structural remains of buildings no longer extant but related to the Hope Cemetery may also exist including the Curtis Chapel, Superintendents House, 1876 barn, and 1854 and 1872 receiving tombs. The remains of additional outbuildings including a pre 1876 barn may also be present. Human remains including those of paupers, unknown persons and other indigents may also be present in unmarked graves. Artifact remains and patterns of burial goods left at grave sites may also be present.

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8. NARRATIVE STATEMENT OF SIGNIFICANCE

Worcester's Hope Cemetery possesses integrity of location, design, setting, materials, workmanship, feeling and association and meets National Register Criteria A, B and C on the local level. Laid out in 1854, the city-owned 170 acre Hope Cemetery is bordered on its principal side, Webster Street, with handsome granite walls (1869 and 1936). Sited on a rising slope, the cemetery has its grandest vista to the southeast where it looks across the Middle River Valley to the stone towers of Holy Cross College. Under Criterion A, Hope Cemetery is important in Worcester's history as not only the City's sixth public burial ground but as the vessel of the five earlier burial grounds whose remains and gravestones have been moved to and sensitively placed in Hope Cemetery. These earlier burial grounds include the first burial ground at Thomas and Summer Streets (1713), portions of the Second Burying Ground on Worcester Common (1728), Raccoon Plain Burial Ground, Mechanic Street Burying Ground (c. 1786) and Pine Meadow Burying Ground (1828). Hope Cemetery is associated with the lives of persons significant in Worcester's past. These include the nationally famous builders, the Norcross Brothers, James Atkinson Norcross and Orlando Whitney Norcross, the well-known sculptors, Andrew Sr. and Andrew Jr. O'Connor, significant historical figures, such as Captain Peter Slater who led the Boston Tea Party raiders, prominent civic leaders such as Levi Lincoln, Governor of Massachusetts, and leading industrialists including Loring Coes, James Wesson, Iver Johnson and Matthew Whittall. As an excellent example of the mid nineteenth century "rural" or "garden" cemetery movement, and for the outstanding architecture of its magnificent mausoleums along with monuments and plaques by several local sculptors, Hope Cemetery meets Criteria C. As an outstanding rural cemetery possessing unusual design value, Hope Cemetery also qualifies under Criteria Consideration D.

The Act establishing Hope Cemetery was signed by Governor Emory Washburn, April 28, 1854. It provided any citizen of Worcester the right of burial in Hope Cemetery regardless of his birthplace, color or religious belief. (Telegram, June 1, 1854) The original fifty acres of land was purchased for \$1855 in 1851 and Hope

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Cemetery was consecrated May 22, 1852. The Act also placed the charge and oversight of this cemetery in the hands of five commissioners, to be chosen by the City Council. The first governing board consisted of Gov. Emory Washburn, Levi Lincoln, Ichabod Washburn, Albert Tolman and Loring Coes (Franklin P. Rice, ed., The Worcester of Eighteen Hundred and Ninety-Eight, p. 29), three of whom are buried in Hope Cemetery.

Hope Cemetery appears to be the sixth of Worcester's public burial grounds. The first burial ground, at the junction of Thomas and Summer Streets, was established in 1713. The seventeen graves were marked by heaps of stone, none of which had inscriptions. (Charles Nutt, History of Worcester and its People, p. 482) The Second Burying Ground was laid out on the southeast quadrant of Worcester Common in 1728 and burials took place there until 1824. In 1965 the remains of 111 persons and 47 gravestones were removed from the east end of the Common and buried in Section 107 of Hope Cemetery. Ten more gravestones were removed in 1994, also from the east end of the Common, and are presently (1996) stored in the Receiving Tomb.

It is unclear when Raccoon Plain Burial Ground was established but 16 persons were removed in 1857 and brought to Hope Cemetery. Mechanic Street Burying Ground was founded c. 1786, interments continued until 1859, and in 1878-1879, 1116 bodies were moved to Hope Cemetery. Pine Meadow Burying Ground's first burial was in 1828 and the removal of 658 remains to Hope Cemetery began in 1863-1866 and was completed in 1872-1877 to accommodate purchases of land by the Boston & Albany Rail Road Corp.

Private cemeteries in Worcester include Rural Cemetery (1838), as well as Notre Dame Cemetery (1885) and Swedish Cemetery (1885) which lie across Webster Street from Hope Cemetery. St. John's Cemetery (1848) and B'nai Brith Cemetery adjoin Hope Cemetery to the north. (Ann C. Nelson, Hope Cemetery Commissioner, November, 1996). These cemeteries, too, merit further study and could also, potentially, be eligible for listing in the National Register.

Prior to the formal establishment of Hope Cemetery in 1854, there were two early burials on the Cemetery land: James H. Nash in 1840 and Eliza D. Gates in 1850. (Florence T. Allen, comp. "Old Cemeteries of

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Worcester, Massachusetts.") There are now over 70, 000 persons buried in Hope Cemetery, with an estimated 55,000-65,000 gravestones. Sufficient land was acquired between 1851 and 1937 to expand the original 50 acre tract to 145 acres and now the Cemetery contains over 170 acres.

Gill Valentine, Esq. (1788-1878), the well-known Worcester surveyor was paid \$117.20 for "surveying and making plan" for Hope Cemetery in 1854. In the same year he prepared "an accurate survey of the ancient burying ground upon the common" (City of Worcester, Annual Report, 1854. City Doc. No. 8, p. 40), this, referring to the Second Burying Ground on Worcester Common. While the survey of Hope Cemetery has yet to be discovered, the Second Burying Ground survey is extant and has proved accurate. From 1854 to 1867, Gill Valentine was paid almost yearly for further surveying, as more and more of the cemetery was developed.

An impressive number of improvements were effected in Hope Cemetery by the Works Progress Administration between 1934 and 1938. Both money (\$600,000), and manpower (300 men working daily for four years) were poured into the aging Cemetery. The most prominent result of this effort is the 1600' long granite wall along Webster Street (Photo #3, Site Plan #22) as well as the fieldstone entrance at Curtis Avenue, both completed in 1936. The internal circulation system was also improved with the paving of over 20 miles of dusty, rutted dirt roads. The trees received an enormous amount of attention: over two hundred dead, dying or diseased trees were removed and more than three hundred trees, mostly rock maples, were planted in their stead. Another 500 trees underwent the tree surgeon's saw for pruning and cavity work. It was reported that " ... some of the tallest and most beautiful trees, although seriously damaged and diseased have been saved ... through the science of tree surgery ... In some cases crews of men labored months to save a single, sturdy, old veteran." (Sunday Telegram, Section Five, Sept. 25, 1938)

On the occasion of the centennial memorial service for Hope Cemetery, City Councilor Paul S. Morgan underscored the association of the Cemetery with the lives of persons significant in Worcester's past saying: "For here lie some of the leaders of this great city - some of its architects, its artisans, its builders and defenders." (Telegram, June 1, 1954)

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One of the important civic leaders buried in Hope Cemetery is Loring Coes (Photo #11, Site Plan #27), inventor of the Knife Handle Wrench, who established Loring Coes & Co., the well-known manufacturer of machine knives. He was a representative to the General Court in 1885-6 and served on both the Common Council and Board of Aldermen.

The famous partners of Norcross Brothers, Contractors and Builders of Worcester (est. 1864), James Atkinson Norcross (1831-1903) and younger brother Orlando Whitney Norcross (1839-1920), are buried in Hope Cemetery mausoleums (Photo #6, 8; Site Plan #13, 14). Acclaimed by architect H. H. Richardson, for whom they built Trinity Church (1873) in Boston, as one of the country's best masonry load bearing builders, the brothers worked for Richardson until his death in 1886. The Norcross Brothers' other clients included the most prestigious architectural firms in the United States, among them Shepley, Rutan and Coolidge, McKim, Mead and White, and Peabody and Stearns (architects for the Worcester City Hall). James O'Gorman states that "without question it (the firm) was among the most important construction companies in the country in the late nineteenth and early twentieth century." (James O'Gorman, "O. W. Norcross, Richardson's 'Master Builder,'" Journal of the Society of Architectural Historians, May 1973, p. 105) The Norcross Brothers' first large contract was the Leicester Congregational Church in 1866. In Worcester they built the First Universalist Church (1871), the Worcester Art Museum (1896), Worcester City Hall (1898) and numerous other structures. In 1920, a commemorative bronze plaque, designed by Worcester sculptor Andrew O'Connor, was placed in the center of the third floor of Worcester City Hall, identifying Orlando W. Norcross as MASTER BUILDER. The two well-known local father and son sculptors, Andrew O'Connor, Sr. and Andrew O'Connor, Jr. are also buried in Hope Cemetery.

An Italian marble obelisk near the main entrance of the Cemetery, executed by Tateum & Horgan, honors Captain Peter Slater (1760 - 1831, Site Plan #33), and the other participants in the Boston Tea Party of December 16, 1773. The dedication of the Slater obelisk took place on July 4, 1870 and the reporting of the event covered more than half the front page of the Worcester Daily Spy. (July 6, 1870, p. 1) Nathan L. Revere

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(d. 1907), great grandson of Paul Revere, is also buried at Hope Cemetery as is John B. Gough, orator and philanthropist. Two other nationally known figures interred in the cemetery are Abby Kelly Foster, the 19th century women's rights advocate and Robert Goddard, recognized as the father of the American space program.

Many of Worcester's business and industrial leaders are buried at Hope Cemetery. Here lie Horace Bigelow, the developer of Lake Quinsigamond, James Wesson (Photo #7, Site Plan #20) and Iver Johnson (Site Plan #35), gun and pistol manufacturers, and Matthew J. Whittall (d. 1922, Site Plan #40), a well-known Worcester carpet manufacturer, owner of the Whittall Mills. Albert Curtis, for whom a main avenue in the Cemetery is named, succeeded Loring Coes on Hope Cemetery's Board of Commissioners in 1855 and serving until his death in 1898. He donated the Curtis Chapel, no longer extant.

Two Congressional Medal of Honor Winners are buried in Hope Cemetery: Thomas Plunkett (d. 1885) and Charles J. Pinkham (d. 1920).

Hope Cemetery is important as a fine example of a New England "rural" or "garden" cemetery. The movement away from crowded church yards and city cemetery lots to pastoral burial places began in Cambridge, Massachusetts with the founding of Mt. Auburn Cemetery in 1831. Twenty-three years later, Hope Cemetery was established, its founders making a conscious decision to create a rural cemetery: "In the opinion of competent judges, this lot is admirably adapted to the purpose for which it is designed. It is neither too remote from, nor too near to, the city. Its surface is variegated with hills and valleys. It is elevated above the New Worcester stream, which sweeps it upon the north. It is susceptible of a high degree of embellishment." (City of Worcester, Annual Report, 1851. City Doc. No. 6, p. 24)

The Hope Cemetery Commissioners' Reports, included in the City of Worcester's Annual Reports, beginning with 1854, report the commissioners activities and concerns regarding the constant enlargement, enhancement and maintenance of the "Garden of Graves." The laying out of avenues with tree names, the purchase of ornamental trees,

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[and] grass seeds all insured that the city would be proud of this "hallowed spot...the cherished resort of the bereaved." (Annual Report, 1857, City Doc. No. 12, p. 63)

Architecturally, Hope Cemetery is significant for the numerous extant mausoleums representing the major revival styles in American memorial art: the Classic, the Egyptian, the Gothic, and the Renaissance with many of them sited in an enclave of these grand sepulchral edifices in Section 12. These distinctive structures of the recent past, which reflect American funerary architectural history, are admired, protected, appreciated and respected, for today due to lack of space and funding and changing taste and mores, they are rarely being built, being replaced by "community mausolea and columbaria." (Kenneth T. Jackson and Camilo Jose Vergara, Silent Cities, p. 112) The legacy of these structures to Hope Cemetery is to create an outdoor museum within an arboreal setting. The mausoleums are visible reminders of a time when Americans consciously in both public and private memorials recreated a historic past to commemorate their dead.

Hope Cemetery is worthy of listing on the National Register for its association with the development of the City of Worcester, the beauty of its picturesque "rural cemetery" design, the architectural integrity of its mausoleums, its oasis of peaceful green space close to the heavily industrialized city and its grand vistas out to the College of Holy Cross and the steep hills of Worcester.

Archaeological Significance

Since patterns of prehistoric occupation in Worcester are poorly documented, any surviving sites could be significant. Prehistoric sites in this area can contain information which would be useful in investigating such topics as Native American settlement and subsistence along the interior Blackstone River drainage, the relationship and importance between Native settlement along the Blackstone River and its tributaries, the relationships between lakeside and riverine settlement and the relationship between interior upland and coastal settlement. Prehistoric sites in this area can contribute to a greater understanding of the importance of the Worcester Plateau/Central Massachusetts uplands as a local and regional Native American settlement area and physiological zone when compared to other areas of the state including the Connecticut River Valley, Berkshire Uplands and Coastal Lowlands.

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Historic Archaeological resources described above have the potential to further document 19th century and possibly 18th century land use in the Cemetery area. Further documentary research combined with archaeological survey and excavation can help document the mortuary practices associated with the Nash and Gates burials, both of which predate the founding of the Hope Cemetery in 1854. These graves may represent individual family plots or may have represented the start of some community or neighborhood based cemetery practice. In the event farmsteads are associated with these burials, archaeological resources may be present which can contribute information on the social, cultural and economic characteristics associated with 19th and possibly 18th century agricultural settlement in Worcester County. Structural remains of buildings no longer extant but associated with the Hope Cemetery can also be important by contributing information which helps reconstruct earlier components of the cemetery as well as its mortuary practices and maintenance activities. Archaeological survivals of the Curtis Chapel and 1854/1872 receiving tombs can contribute information on funerary services at the cemetery and the treatment of bodies prior to burial. Structural remains and occupational related features associated with the Superintendents House can provide information relating to the conditions of life for cemetery workers and their families. Archaeological resources associated with the barn may contain information relating to general maintenance activities at the cemetery as well as 19th century transportation technologies associated with maintenance and funerary practices. Human remains can also contribute important information towards the significance of this nomination. Unmarked burials can contain information relating to the funerary treatment of deceased paupers and unknown persons. Human remains associated with burials moved from other cemeteries to the Hope Cemetery can contribute information on the extent to which the entire burial or portion thereof which was moved and the extent to which burials were mixed or reburied in multiple burials. Artifacts associated with individual graves can also yield important information by indicating differential or similar treatment of burials possibly based on ethnic or social status and the duration of that treatment.

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8. ARCHITECT/BUILDER (continued)

Barker & Nourse
Hewett, Arthur (sculptor)
Kenneth, W.D.
Novelli, J. (sculptor)
O'Connor, Andrew (sculptor)
O'Connor, Andrew, Jr. (sculptor)
Saville, Bruce Wilder (sculptor)
Valentine, Gill (surveyor)

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<u>Number</u>	<u>Historic Name</u>	<u>Type</u>	<u>Material</u>	<u>Resource</u>	<u>Date</u>	<u>Status</u>
1	HOPE CEMETERY	LANDSCAPE PLAN	N/A	SITE	1854	C
2	CEMETERY OFFICE	BUILDING	WOOD/BRICK	BUILDING	1882/1889/ 1930	C
3	BARN/GARAGE	BUILDING	WOOD	BUILDING	1889	C
4	ALDRICH	MAUSOLEUM	GRANITE/ BRONZE DOORS	BUILDING	1917	C
5	BIGELOW & STEVENS	MAUSOLEUM	GRANITE/BRONZE DOOR	BUILDING	1915	C
6	A. COTSIDAS	MAUSOLEUM	GRANITE/BRONZE DOOR	BUILDING	ca. 1960	NC**
7	HANFF	MAUSOLEUM	GRANITE/BRONZE DOOR	BUILDING	1903	C
8	H. F. HARRIS	MAUSOLEUM	GRANITE/BRONZE DOOR	BUILDING	1915	C
9	HOUGHTON	MAUSOLEUM	GRANITE/BRONZE DOOR	BUILDING	1901	C
10	H.H.KING-HARDING	MAUSOLEUM	GRANITE/BRONZE DOOR	BUILDING	1898	C
11	MARCY	MAUSOLEUM	GRANITE/MARBLE DOOR/ BRONZE GATES	BUILDING	1901	C

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<u>Number</u>	<u>Historic Name</u>	<u>Type</u>	<u>Material</u>	<u>Resource</u>	<u>Date</u>	<u>Status</u>
12	ALBERT A. MORTON	MAUSOLEUM	GRANITE/BRONZE DOORS	BUILDING	1917	C
13	JAMES A. NORCROSS	MAUSOLEUM	GRANITE/SERPENTINE MARBLE COLUMNS	BUILDING	1905	C
14	ORLANDO W. NORCROSS	MAUSOLEUM	GRANITE	BUILDING	1909	C
15	THOMAS PRINCE	MAUSOLEUM	GRANITE/BRONZE DOORS	BUILDING	1910	C
16	SANDERSON	MAUSOLEUM	GRANITE/BRONZE DOORS	BUILDING	1953	NC**
17	HENRY E. SHAW	MAUSOLEUM	GRANITE/BRONZE DOORS	BUILDING	1920	C
18	TONNA	MAUSOLEUM	GRANITE/BRONZE DOORS	BUILDING	ca. 1959	NC**
19	J.K. WARREN	MAUSOLEUM	GRANITE/BRONZE DOORS	BUILDING	1924	C
20	JAMES EDWIN WESSON	MAUSOLEUM	GRANITE/BRONZE DOORS	BUILDING	1910	C
21	FENCE	FENCE	GRANITE/IRON	STRUCTURE	1869	C
22	WPA ENCLOSING WALL	WALL	GRANITE	STRUCTURE	1936	C
23	SOLOMON NIXON GATES	ENTRY	GRANITE/BROWNSTONE/IRON	STRUCTURE	1917	C

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<u>Number</u>	<u>Historic Name</u>	<u>Type</u>	<u>Material</u>	<u>Resource</u>	<u>Date</u>	<u>Status</u>
24	WPA GATES	ENTRY	GRANITE	STRUCTURE	1936	C
25	CITY OF WORCESTER	RECEIVING TOMB	GRANITE	STRUCTURE	1887	C
26	CIRCULATION SYSTEM	ROADWAY	N/A	STRUCTURE	1854	C
27	LORING COES PLOT	FENCE/STATUE/ MONUMENTS	MARBLE/GRANITE/ IRON	STRUCTURE/ OBJECT	1874, 1906	C
28	CANADIAN MEMORIAL	CROSS	GRANITE	OBJECT	1931	C
29	G.A.R. MEMORIAL	CANNONS (3) AND BALLS	BRONZE	OBJECT	1892	C
30	FIREMAN'S MEMORIAL	STATUE	GRANITE	OBJECT	1896	C
31	'HOPE'	STATUE	WHITE BRONZE	OBJECT	1909	C
32	'MEMORY'	STATUE	WHITE BRONZE	OBJECT	ca. 1915	C
33	CAPT. PETER SLATER	OBELISK	MARBLE/GRANITE BASE	OBJECT	1870	C
34	LEWIS HOUGHTON	MONUMENT	GRANITE	OBJECT	1913	C
35	IVER JOHNSON	MONUMENT	GRANITE	OBJECT	ca. 1895	C

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<u>Number</u>	<u>Historic Name</u>	<u>Type</u>	<u>Material</u>	<u>Resource</u>	<u>Date</u>	<u>Status</u>
36	ODD FELLOWS	GRANITE SPHERE	GRANITE	OBJECT	1898	C
37	ODD FELLOWS	GRANITE SPHERE	GRANITE	OBJECT	1929	C
38	PPAFFMAN	MONUMENT	GRANITE/BRONZE	OBJECT	1936	C
39	WM. A. RICHARDSON	MONUMENT	GRANITE TEMPLE WITH RELIEF CHERUB	OBJECT	1898	C
40	WHITTALL	MONUMENT	GRANITE	OBJECT	1922	C
41	TREE CHAMPION BEECHES	TREE (3)	N/A	OBJECT	19 th Century	

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<u>Number</u>	<u>Historic Name</u>	<u>Type</u>	<u>Material</u>	<u>Resource</u>	<u>Date</u>	<u>Status</u>
36	ODD FELLOWS	GRANITE SPHERE	GRANITE	OBJECT	1898	C
37	ODD FELLOWS	GRANITE SPHERE	GRANITE	OBJECT	1929	C
38	PSAFFMAN	MONUMENT	GRANITE/BRONZE	OBJECT	1936	C
39	WM. A. RICHARDSON	MONUMENT	GRANITE TEMPLE WITH RELIEF CHERUB	OBJECT	1898	C
40	WHITTALL	MONUMENT	GRANITE	OBJECT	1922	C
	TREE CHAMPION BEECHES	TREE (3)	N/A	OBJECT	19 th Century	

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TOTAL RESOURCES: 37 Contributing, 3 Non-Contributing

16 Contributing Buildings	3 Noncontributing Buildings
1 Contributing Site	
7 Contributing Structures	
13 Contributing Objects	

KEY

C: Contributing Resources
NC: Non-Contributing Resources
NC**: Non-Contributing Resources but will probably be contributing in the future

Note: With an estimated 50,000-65,000 gravestones and markers in Hope Cemetery, it is impossible to identify all resources. Therefore the District Data Sheet only provides a representative sample of the resources to be found in the Cemetery.

CITY OF WORCESTER

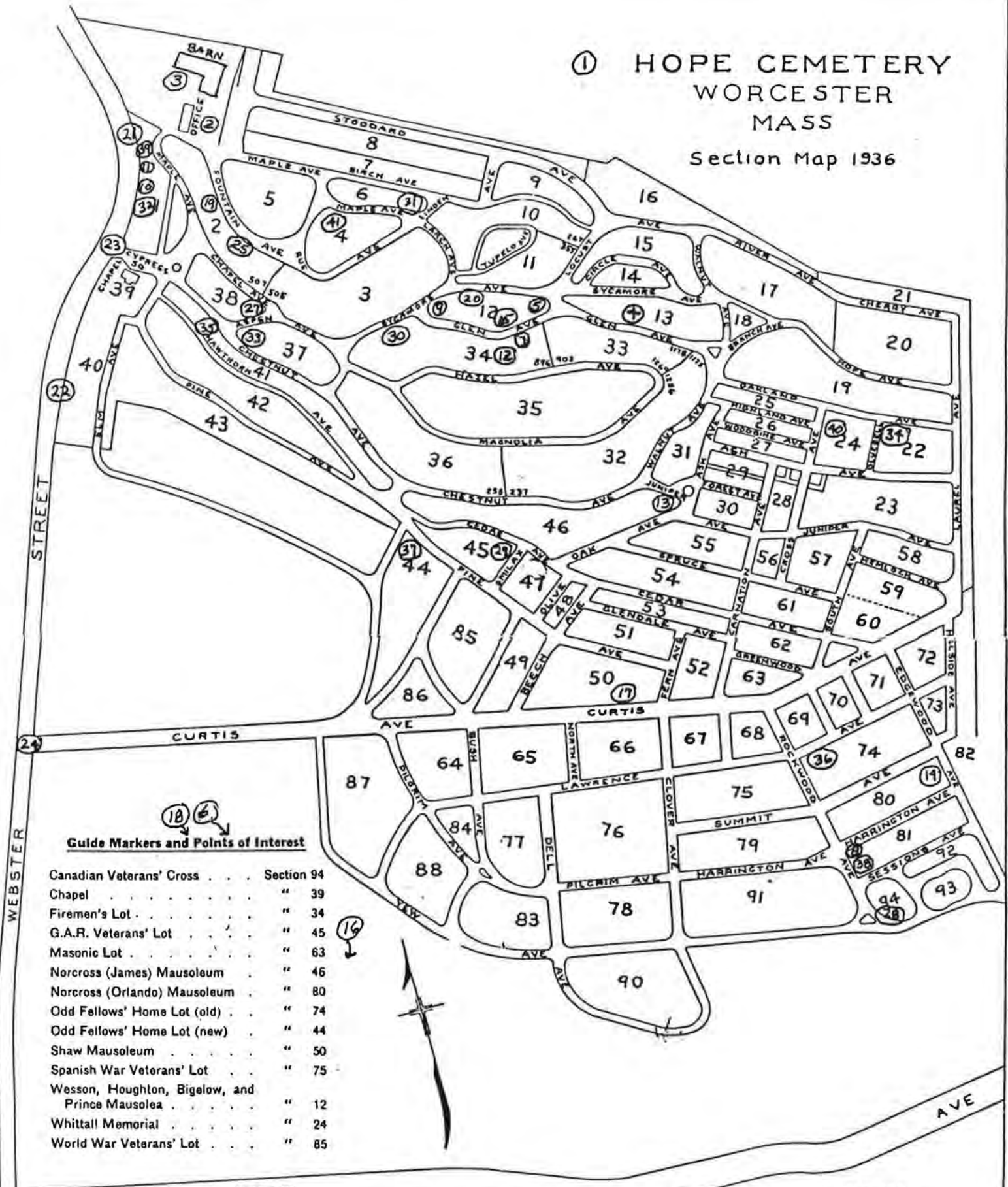
HOPE CEMETERY - SECTION MAP

MAP DATED 1936, UPDATED 1987

ANNOTATED BY FANNIN/LEHNER 1997



① HOPE CEMETERY
 WORCESTER
 MASS
 Section Map 1936



Guide Markers and Points of Interest

Canadian Veterans' Cross	Section 94
Chapel	" 39
Firemen's Lot	" 34
G.A.R. Veterans' Lot	" 45
Masonic Lot	" 63
Norcross (James) Mausoleum	" 46
Norcross (Orlando) Mausoleum	" 80
Odd Fellows' Home Lot (old)	" 74
Odd Fellows' Home Lot (new)	" 44
Shaw Mausoleum	" 50
Spanish War Veterans' Lot	" 75
Wesson, Houghton, Bigelow, and Prince Mausolea	" 12
Whittall Memorial	" 24
World War Veterans' Lot	" 85

HOPE

11/15/96

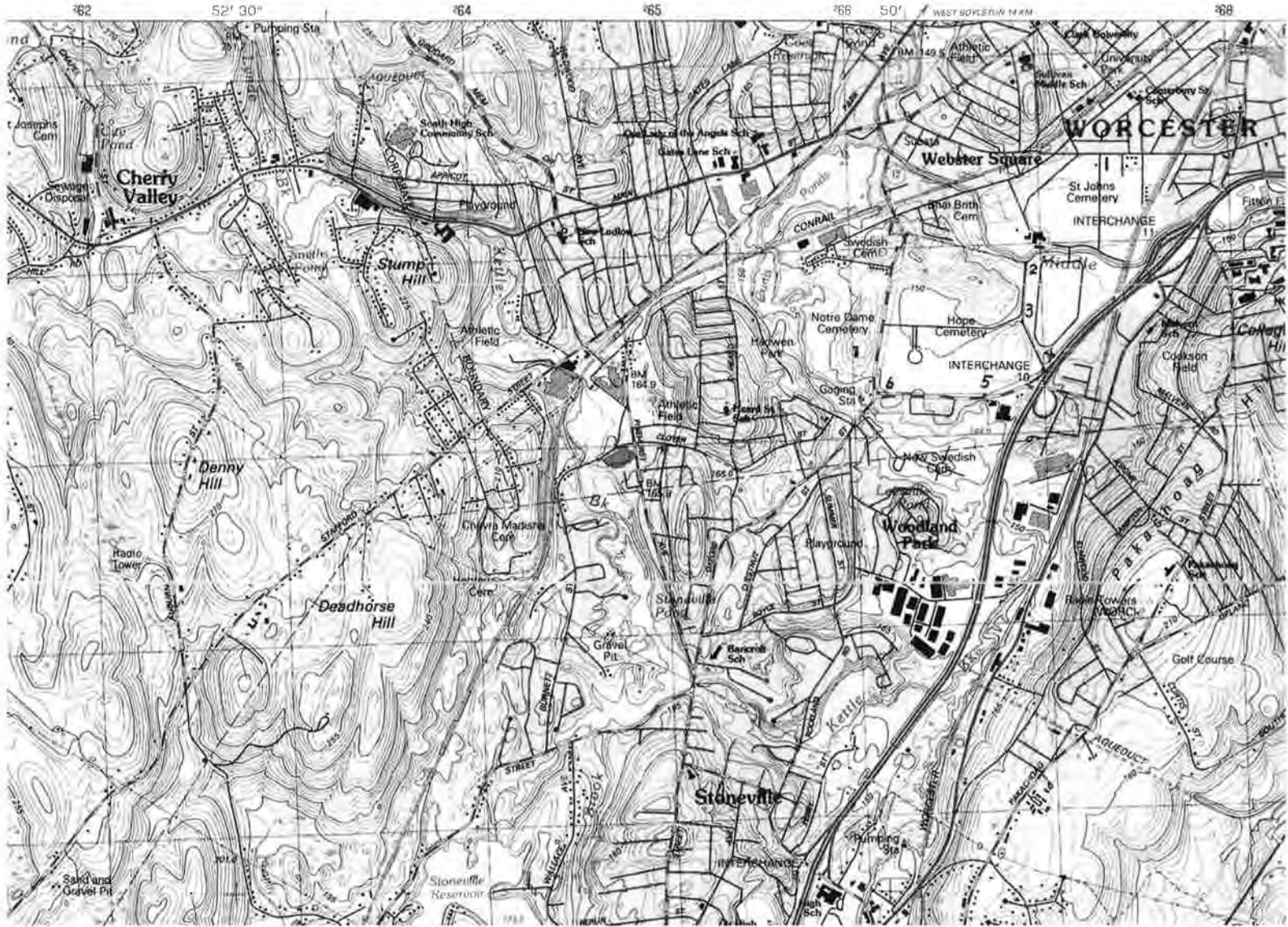
SITE PLAN SHOWING FEATURES LISTED IN THE DISTRICT DATA SHEET

FANNIN/LEHNER

HOPE CEMETERY
 WORCESTER
 WORCESTER COUNTY
 MASSACHUSETTS

1. 19 266300 4680060
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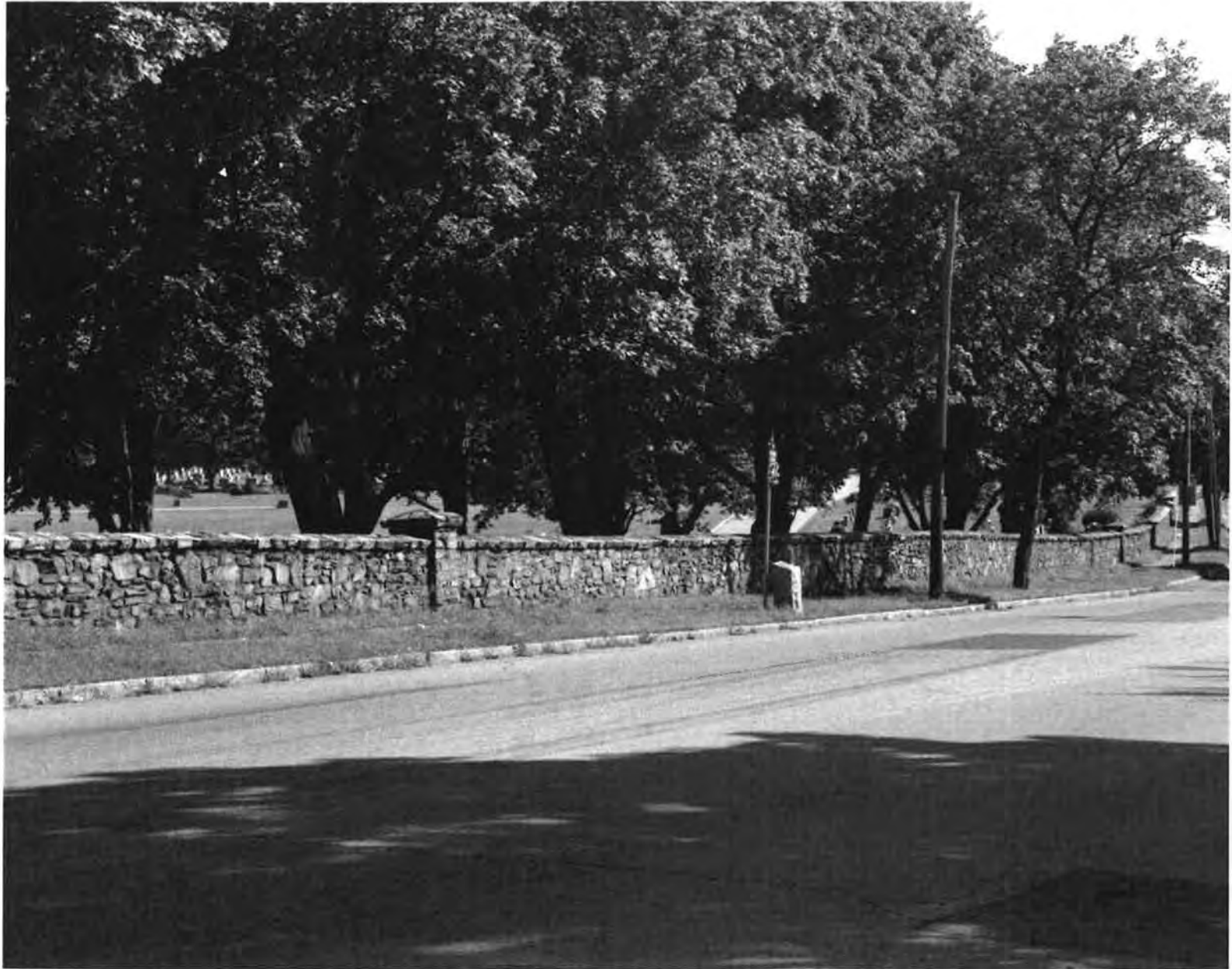




1. Wrought-iron Solomon Nixon Gates (1917; conserved 1995) located on Webster Street between Sections 1 and 39. Gates are flanked by granite arches trimmed with brownstone. Looking east. (Photograph: Monique B. Lehner, August 1996)



2. Original (1869) Gothic-style granite posts with incised trefoils and wrought-iron fence along Webster Street from northwest corner of the cemetery to Nixon Gates. Looking north. (Photograph: Monique B. Lehner, August 1996)



3. WPA-built (1936) granite wall with granite posts capped with low-pitched pyramidal tops. Wall runs along Webster Street from Nixon Gates to 500 feet west of intersection of Webster Street and Hope Avenue. Looking southwest. (Photograph: Monique B. Lehner, August 1996)



4. Vista along Cemetery's Chestnut Avenue and up the rise toward Magnolia Avenue. Photo taken from the Samuel H. Taylor (d.1907) monument, Section 46. Looking northwest. (Photograph: Monique B. Lehner, May 1995)



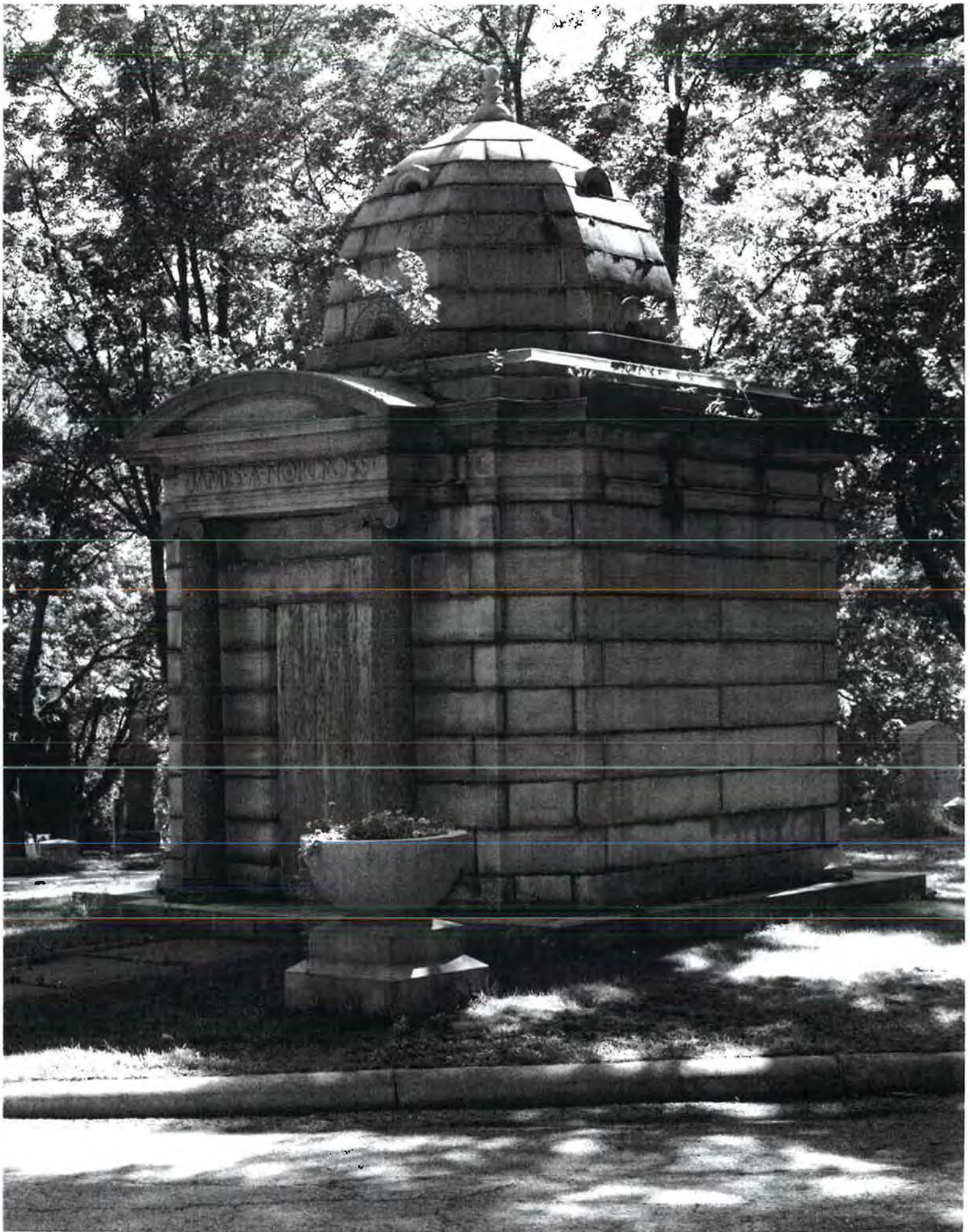
5. Vista focusing on the tree champion European Beech, Section 4. Looking northwest from Firemen's Statue, Section 34. (Photograph: Monique B. Lehner, May 1995)



6. Orlando W. Norcross Doric-style mausoleum (1909), section 80, north facade and west elevation. Sited at the crest of a hill, the mausoleum commands a vista of curving roads and undulating terrain. Looking southeast. (Photograph: Monique B. Lehner, May 1995)



7. James Edwin Wesson, Egyptian Revival (1910), Section 12, north facade and west elevation. Looking southeast. (Photograph: Monique B. Lehner, May 1995)



8. James A. Norcross domed Renaissance Revival mausoleum (1905), Section 46, north facade and west elevation. Looking southeast. (Photograph: Monique B. Lehner, August 1996)



9. Marcy Classical Revival mausoleum (1901, Barker & Nourse), Section 1, west facade and south elevation. Looking east. (Photograph: Monique B. Lehner, May 1995)



10. Houghton Gothic Revival mausoleum (1901), section 12, west facade and south elevation. Looking east. (Photograph: Monique B. Lehner, May 1995)



11. Coes Family Plot (1874), bounded by granite base, wrought and cast-iron fence, sited on a rising slope, section 38. Looking northwest.
(Photograph: Monique B. Lehner, May 1995)



12. White bronze Parlin monument "Memory," (1915-1916), atop a classically detailed base, sited in prominent Section 1. Statue faces northwest. Looking southeast. (Photograph: Monique B. Lehner, May 1995)



13. Pfaffman Monument (1927-1936), W.D. Kenneth, architect and J. Novelli, sculptor). The monument and exedra face west. Looking east.
(Photograph: Monique B. Lehner, May 1995)



14. Stick style cemetery barn/garage (1889), northwest corner of the cemetery, south facade and east elevation. Looking north.
(Photograph: Monique B. Lehner, May 1995)

APPENDIX

E

HOPE CEMETERY CURRENT RULES AND REGULATIONS

CITY OF WORCESTER
DEPARTMENT OF PUBLIC WORKS AND PARKS
Hope Cemetery Division 119A Webster Street Worcester, MA 01603

Paul J. Moosey, P.E.
Commissioner



Robert C. Antonelli, Jr., CPRP
Assistant Commissioner

(508) 799-1531
(508) 799-1253 FAX

Edward M. Augustus, Jr., City Manager

**RULES & REGULATIONS
OF HOPE CEMETERY**

These Rules & Regulations are Adopted Pursuant to Art.5, section 9 of the 2011 revised Ordinances of the City of Worcester

OPENING & CLOSING HOURS

1. Office hours 8:00am – 3:00pm Monday thru Friday
2. Office closed on weekends and holidays
3. The Cemetery will open at 7 a.m. and will close at sunset. The Cemetery may refuse entrance to any and all vehicles on Memorial Day until after 12 noon, except for those of disabled veterans or Memorial Day participants.

The New York Street gate will be open during working hours for commercial and other vehicles. (7 a.m. – 3:30 p.m.).

All gates may be locked during public emergencies.

INTERMENTS, DISINTERMENTS & REMOVALS

4. All funerals, upon reaching the Cemetery, shall be under the supervision of the Administrative Office, foreman, or other designee assigned by the Commissioner.
5. Once a casket containing a body is within the confines of the Cemetery, no funeral director or his agent is allowed to open the casket or to touch the body without a court order.
6. In addition to being subject to these rules and regulations, all interments, disinterments and removals are made subject to the order and laws of the properly constituted authorities of the city county & state.
7. The Cemetery shall set all fees and charges for interments, disinterments, & removals. Lists of charges for various services are published. (See fee schedule).
8. No interments, or removals shall be allowed on Sundays, Memorial Day, July 4th, Thanksgiving, Christmas, or New Years Day.
9. Cemetery Office must receive all interment orders no later than 12-noon the day prior to burial. All disinterments shall be made at the Cemetery's discretion. If a burial is to be scheduled on a Monday the interment orders need to be received on Friday by 12:00 - noon.
10. Only funeral directors are allowed to be present during a disinterment. He/she will act as the representative of the family.

11. Unless authorized by duly registered lot owners, the Cemetery may refuse interment. All rights are sold for the ultimate use of the buyer and his or her designated heirs. The cemetery owns the lots by law. No heir may dispose of the lot except to the Cemetery at a price no higher than the original price. (G.L. Ch 114 section 43B). A legal heir may donate a lot to a person of his/her choosing but the transfer must be acknowledged and ratified by the Cemetery.
12. When there are no clear instructions on the location of an interment in a lot the Commissioner or his/her designee may use discretion on placement. The Cemetery shall not be liable for damages for such placement.
13. The Cemetery is not liable for mistakes due to misunderstanding either oral or written instructions.
14. The Cemetery reserves and shall have the right to correct all errors of interments, conveyances, and charges.
15. The Cemetery is not liable for a delay in interment when
 - a written protest is duly filed and
 - there is no full compliance of rules and regulations.
 - In such cases, the Cemetery may refuse to have interment until determination of full rights occurs.
16. The Cemetery is not liable for the interment permit or for the identity of the person to be interred.
17. Double deep burials are prohibited. No more than one body or the remains of more than one body shall be interred in one grave, vault, crypt or niche.
18. Lowering of remains will be permitted on a case-by-case basis. Any exceptions must be provided in writing by the Commissioner or his/her designee observing all legal identification processes (or equivalent).
19. The Cemetery shall exercise the utmost care in making a removal but is not liable for damage to any casket, burial case or urn incurred in making the removal.
20. Payments for Cemetery services are to be made by check, money order or credit card (Master Card –Visa). The cemetery will not bill out of state. Monies due for out-of-state burials are due on the day of interment unless the funeral director is to be charged.
21. Unless all debts are paid the Cemetery can refuse to do or allow any work to be done in or upon a lot.
22. The Cemetery will not permit an interment, foundation or the erection of a monument or marker until the purchase price for any lot is paid in full including past and present burials.
23. Payment is due within thirty (30) days after the Cemetery requests it. If the purchase price, including principal and interest is not paid in full (a note shall not be considered payment), the Cemetery will reclaim the property, be released from all obligations and retain all earlier payment as liquidated damages. The Cemetery may cremate or remove to a single grave the remains interred in said property at its discretion, at any time after interment, and without notice.

SALE OF LOTS

24. All lots are sold by area, in square feet.
25. A body or cremated remains may be removed from its original lot to a different lot in the Cemetery when there has been an exchange or purchase for that purpose.
26. In all sales to two or more persons as joint tenants, each person shall have the vested right of interment of his or her remains in the lot. Upon the death of a joint tenant, the title to the burial lot immediately passes to the survivor or survivors, subject to the vested right of interment for the remains of the deceased joint tenant owner (G.L. Ch 114 section 29). A vested right of interment as in this rule provided may be waived and shall be terminated upon the interment elsewhere of the remains of a person entitled thereto. A final decree of divorce shall also terminate a right of interment unless otherwise provided by such decree of divorce.
27. The owner (owners and individual) who has for paying the prevailing fee acquired the right from the cemetery to be interred there as well as extending the right to his/her spouse and the children there from and, in the absence of children, legal heirs according to statutes of legal descent of a lot may not transfer ownership of one lot to anyone outside of his/her legal heirs and / right by statutory descent (G.L. Ch 114 sections 31, 32, 33). An owner may permit the burial of a person not within the purview described above by a notarized notification to the stating that he/she is conveying a right of interment to that individual. (After the grantee has been interred in that lot, it is considered separate from the owner's family lot and is indivisible and non-transferable.)
28. When the lot owner dies and the plot is not specifically mentioned in his/her will, or deeded in trust, an affidavit must be filed at the Hope Cemetery Administrative Office and signed by one of the legal heirs at law, or if minors by their guardian. The affidavit must include a list of the names of all heirs and a majority must also designate one of their members as representative, who shall be authorized to sign orders for interments and to give all other needful directions regarding the use of the lot. If no such affidavits are filed, the Commissioner his/her designee may designate one of the heirs at law so to act until such time as the before mentioned affidavit shall have been filed.
29. The entire lot, except for one grave, niche, or crypt reserved for the surviving mate, shall descend in regular succession to the legal heirs when:
 - No interment has been made in lot
 - All bodies have been lawfully removed, or
 - There is no specific deposition in the owner's last will & testament
30. To be valid, transfers of lot assignments must be registered with the City Treasurer. The owner will pay a recording fee. Unpaid debts may hinder transfers and/or lot assignments.
31. Lots cannot be subdivided. Only lot owners or their designees by written consent may be buried in a lot. Burials must conform to the rules of the Commonwealth of Massachusetts.

32. The lot owner is responsible to notify the Cemetery of any change of address. Notice sent to the last address on file should be considered sufficient and proper legal notification.
33. Unless the Commissioner or his/her designee grants special permission in writing, the Cemetery will do all interments, disinterment, or removals. Tree plantings, trimmings, and mowing.

DECORATION OF LOTS

34. All lot owners must conform to all the relevant rules of decoration as herein stated in various sections. The Commissioner or designee may remove or alter anything, which in his/her option violates the rules or violates the appropriateness of the adornment. Any costs incurred will be charged to the lot owners.
35. The Cemetery can authorize removal of all floral designs, flowers, weeds, trees, shrubs, plants, or garbage of any kind from the Cemetery as soon as, in the Commissioner's or his/her designee opinion, they become unsightly, dangerous, detrimental, or diseased, or when they do not conform to set standard. The Cemetery may regulate the method of decorating lots. The rules will be enforced by Cemetery personnel with no prior notification.
36. All requests for plantings, i.e., shrubs, hedges, of any kind, should be addressed to the Commissioner or his/her designee. (Certain areas are not allowed any kind of plantings).
37. Glass receptacles may not be placed on a lot.
38. Only one flowerbed per lot is permitted per monument lot. The flowerbed may only be dug in front of the monument and may not extend beyond the length of the base of the monument. All flowerbeds must not extend out more than a foot from in front of monument.
 - No flowering shrubs, i.e. rose bushes or any kind of flowering plant which produces thorns, are allowed. No shrubs or hedges of any kind are allowed.
 - Marble or other stone landscaping, such as rock chips, is not allowed. Concrete brick or other type stone curbing or edging block is not allowed. A flowerbed is not permitted behind or at the sides of the monument.
 - No roses (bushes), azaleas, rhododendrons, boxwoods, privets, spireas, lilacs, barberry, viburnums, or other non-needle type shrubs or woody plants, trees shall be permitted.
39. All urns or planters may only adorn grave between May 1st and Oct. 1st. They must otherwise be removed. Winter decorations may be placed on lots beginning November 26th and must be removed by April 1st. Cemetery personnel will clean the entire cemetery during the months of April and October.
40. No in-ground planting is allowed on flat marker sites (single graves or foot stones), including flat markers located on monument lots.

41. No homemade markers, monuments, crosses or other ornamental type of similar articles will be allowed on lots. No type of fencing is allowed on gravesites (monument or flat marker locations).
42. No watering containers of any kind are to be left on lots.
43. No placing of boxes, shells, toys, metal designs, ornaments, chairs settees, vases, glass, wood, crockery or iron cases, balloons, or containers and similar articles, upon lots is allowed, If so placed, the cemetery will remove them with no prior notification.
44. All fitting, adornments and urns shall be and are hereby declared to be subject to the Cemetery's control and acceptance or rejection.
45. No items of any kind will be allowed to be hung, tied, taped, or nailed from the Cemetery trees.
46. SECTION 116 ONLY-! Only two shrubs are permitted per lot. The only type of shrub allowed is of the needle-type evergreen. The shrubs must be planted directly on either side of monument. They are NOT permitted to be planted in front or on the rear of the monument. The shrubs must be kept in a neat and trimmed condition; they are not allowed to grow taller than the height of the monument on the lot or to grow outside the boundaries of the lot. Shrubs are intended to be a compliment to the monument, and not become the dominant feature of the lot. The combined size of both shrubs should not become greater than the size of the monument.
47. No other locations are allowed shrub / tree plantings.

CHANGES IN GRADES, ETC.

48. The Cemetery and other authorized persons have the right to pass through lots. The Cemetery also has the right to:
 - To occasionally enlarge, reduce, replant and/or change the boundaries.
 - Modify and/or change the locations of or remove or regrade roads, drives and/or walks, or any part thereof.
 - Lay, maintain and operate, or alter or change pipe lines and/or gutters for sprinkling systems, drainage, lakes, etc.
 - Use Cemetery property, not sold to individual lot owners for anything necessary, incidental, or convenient thereto.
49. No easement or right of interment is granted to any plot owner in any road, drive alley, or walk within the Cemetery, but such road, drive alley or walk may be used as a means of access to the cemetery of buildings as long as the Cemetery devotes it to that purpose.

CONDUCT OF VISITORS

50. Persons within the Cemetery grounds shall use only the avenues, walks, alleys and roads. The Cemetery shall not be held liable for any person(s) injured while walking in the confines of Hope Cemetery. Only the lot owner or his/her relatives is allowed on the Cemetery lot. Any other person therein shall be considered as a trespasser, and the Cemetery shall owe no duty to said trespasser to keep the property, or the memorial thereon, in a reasonable safe condition.
51. Children under twelve must accompanied by proper caregiver when in the cemetery.
52. No one may gather flowers, either wild or cultivated, break trees, shrubbery or plants, or disturb the birds or wild life. Flowers may not be brought into the grounds except to be placed on grave and lots or in mausoleums or columbariums, nor removed under and pretense whatsoever except with written permission from the Commissioner or his/her designee. Flowers wreaths, etc., left on graves will be removed as soon as possible after they fade, unless special permission is secured.
53. Private picnicking is prohibited in the Cemetery.
54. No loitering.
55. No ball playing allowed within Cemetery grounds.
56. No loud talking is allowed on the Cemetery grounds within hearing distance of a funeral service.
57. No alcohol or drugs are allowed within the Cemetery grounds.
58. The throwing of rubbish on the drives, walks, lots or buildings is strictly prohibited; Receptacles for waste material are conveniently located throughout the cemetery.
59. The Cemetery cannot be used as a thoroughfare (G.L. Ch 114, section 42). Commercial and business vehicles need the Commissioner's his/her designee permission to enter and must report to the office.
60. The maximum speed for vehicles is fifteen (15) miles per hour. Drivers must keep to the right of Cemetery roadways. Drivers may not park or stop in front of an open grave unless attending a funeral, and must make the circuit of the section.
61. Driving lessons are not allowed in the Cemetery.
62. Peddling of flowers or plants or the sale or soliciting the sale of anything is positively prohibited within the confines of the Cemetery unless the Cemetery issues a permit.
63. No firearms or knives shall be permitted within the Cemetery except at military funerals or on special written permit from the Commissioner or his/her designee.
64. No signs, notices or advertisements of any kind shall be allowed in the cemetery except tags of monument dealers. Tags must not be over three square inches in area.
65. Unleashed dogs are not allowed.
66. The Commissioner or his/her designee has the power to prevent illegal assemblies on Cemetery ground.
67. The Commissioner or his/her designee is hereby empowered to enforce all rules and regulations, and can expel any violators from the Cemetery. He/She shall have charge of the grounds and building, and at all times, shall have supervision and control of all persons in the Cemetery, including the conduct of funeral traffic and employees.

PROTECTION AGAINST LOSS OR DAMAGE

68. The Cemetery shall take reasonable precaution to protect lot owners and their property rights within the Cemetery from loss or damage. However, it distinctly disclaims responsibility for loss or damage from causes beyond reasonable control, and especially from damage caused by the elements, and act of God, common enemy, thieves, vandals, strikers, malicious mischief makers, explosions, unavoidable accidents, invasions, insurrections, riots or order of any military civil authority, whether the damage be direct or collateral, other than as herein provided.

CARE OF LOTS

69. "Perpetual Care" means routine general care of lots and cemetery ground: cutting of grass at reasonable intervals and maintaining lots, grounds, walk, roadways, boundaries, and structures. This service will be provided indefinitely.
70. "Perpetual Care" shall not mean: the maintenance, repair or replacement of gravestones, markers, etc., planting of flowers or ornamental plants, or the reconstruction of any marble, granite, bronze or concrete work on any section or lot: of any portion or portions thereof in the Cemetery, (or other buildings or structures resulting from causes described in Section 61).

MEMORIAL WORK

71. The Commissioner or his/her designee must approve all proposed memorials. The Cemetery shall have authority to reject any plan or design for any memorial which because of size, design, inscription, material, in the opinion of the Supervisor and/or Commissioner or his/her designee is unsuitable for the lot on which it is to be placed. If unsatisfactory upon review, the Cemetery will notify the proper person to make the necessary changes.
72. The size of the monument is to be governed according to the size of the area. The size is fixed for each lot and section. Dealers and lot owners should consult the Cemetery office before cutting any work. No monument or marker should be purchased prior to receiving written approval from the Cemetery office.
73. Flat foot markers shall be flush to the ground except when it is necessary to match those already set in the lot. Flat foot markers are no larger than 24 inches in length and 12 inches in width on all single adult graves. All flat foot markers shall have at least a 4" thickness or a base.
74. It shall be the responsibility of the lot owner to confirm in writing the monument / marker size for the lot of which they own.

75. The Cemetery reserves the right to stop all work of any nature whatsoever if, in its opinion:
- * Proper preparations therefore have not been made.
 - * Tools and machinery are insufficient or defective.
 - * Work is being executed in such a manner as to threaten life or property.
 - * The monument dealer is found guilty of misrepresentation.
 - * Any reasonable request on the part of the Cemetery is disregarded.
 - * Work is not being executed according to specification, or
 - * Any person employed on the work violates any rule of the Cemetery
76. The Cemetery shall be responsible for the installation of all foundations. Monument dealers shall assume responsibility for foundation charges, unless arrangements have been made with the Cemetery office. Rates are subject to change.
77. At the lot owner's expense, the Cemetery shall either correct or remove all monuments, mausoleums, or tombs that are unsightly, dilapidated, or a public safety hazard. The lot owner shall be notified beforehand.
78. Lot owners must request removal of a monument or marker in writing. The Cemetery can grant or refuse such requests.

BULK SALES

79. Bulk Sales are not allowed.

MODIFICATIONS AND AMENDMENTS

80. Special cases may arise in which the literal enforcement of a rule may impose unnecessary hardship. The Cemetery, therefore, reserves the right, without notice, to make exceptions, suspensions or modifications to any of these rules and regulations when in its judgment the same appears advisable and such temporary exception, suspension or modification shall in no way be construed as impacting the general application of such rule.
81. The Commissioner and or his/her Cemetery designee, with the advice from the Cemetery Commission, may alter any of the forgoing rules without notice, but not to be retroactively enforced.

APPENDIX

F

ANNUAL CANA STATISTICS REPORT 2015

Annual CANA Statistics Report

Featuring final 2013 data, newly released 2014 data, and projections to 2019

©CANA, 2015

Introduction

Since its founding, CANA has been at the forefront of the cremation industry. The association's Cremation Statistics Annual Report is the preeminent source on cremation data from the United States and Canada. CANA members use the data for business planning, industry suppliers trust it for business forecasting, and members of the press use it as a source for consumer and business stories on cremation.

For years, CANA has been collecting death and cremation data from state and provincial vital statistics departments or other designated regulatory agencies in the United States and Canada. From these figures, CANA has determined the annual percentage of cremations to deaths, which includes all the states and provinces. CANA has also been able to use these figures to forecast future cremation percentages.

In the past, the majority of the states and provinces had resources to provide death and cremation data; however, due to budget cuts a significant number of them have reduced or eliminated this service. As a result, CANA's role in collecting the relevant data and forecasting these trends has become more significant than ever before. CANA continues to refine its data collection and analysis methodologies.

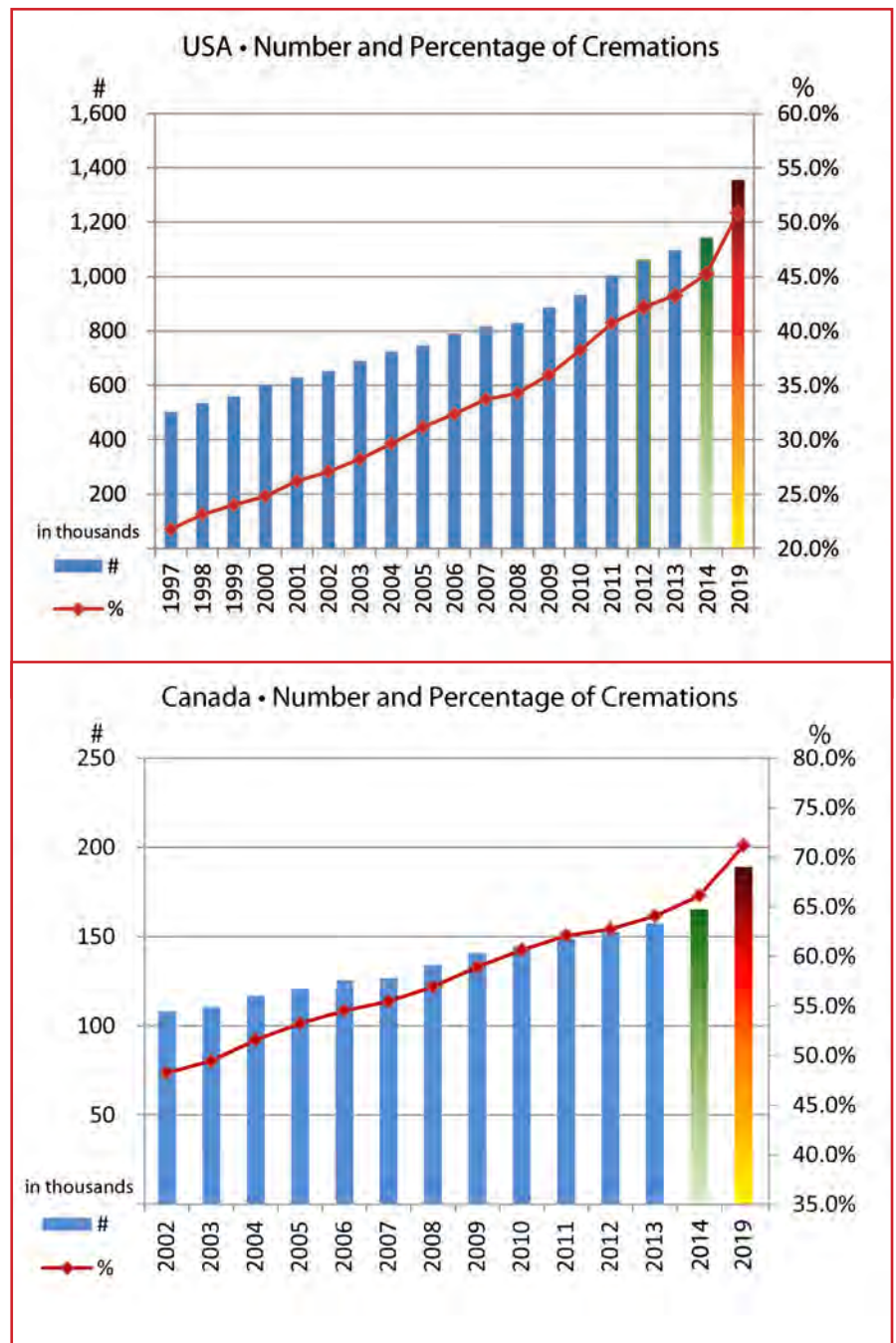
Projection Methodology

Given the significant political and recessionary changes, a regression analysis was implemented to aid the interpretation of the data. This regression analysis was applied over a ten-year period in states and provinces where such a data set was available. This analysis, and in some cases new validated data, resulted in revision of previously published figures. Because death rates tend to fluctuate due to diversity in population size amongst the various generations, this can lead to a periodic decline in death rates, something we are now seeing in several states.

Data

The vital statistics department or other designated regulatory agency in each state and province was contacted to collect the death and cremation data. Individual states and provinces finalize their annual data on a separate and individual time frame. Some take up to three years following the close of the calendar year. As a result, statistics published here may have been updated from those previously published in CANA's annual reports. Where verified data differ from that which were previously reported, the most recent data are used. Additionally, several states or provinces will not release provisional data. In these instances, CANA must perform estimates that

Report Highlights – United States and Canadian Cremation Trends



are calculated based on detailed regression analysis. All death and cremation figures are based on the state or province where they occurred, regardless of residency.

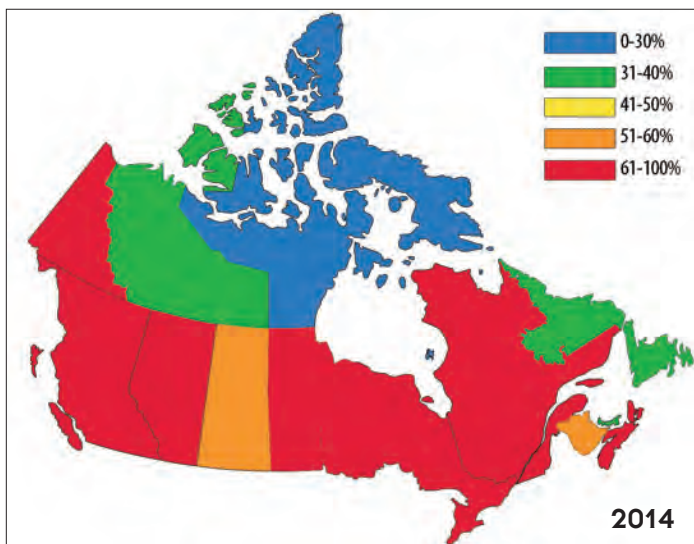
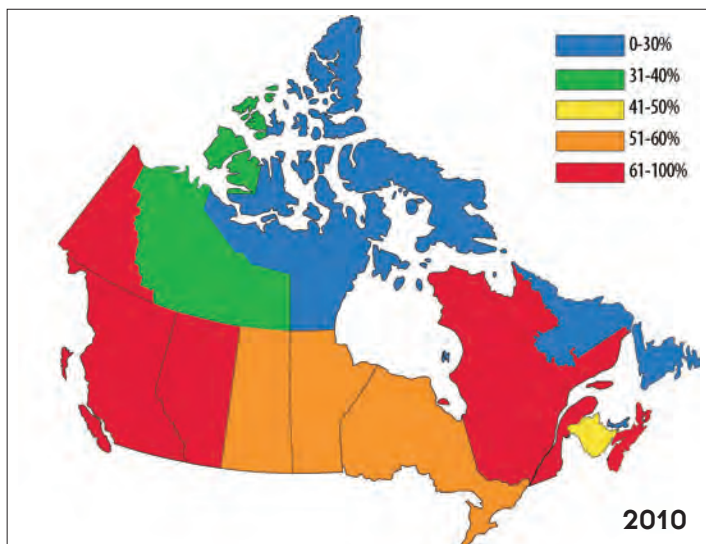
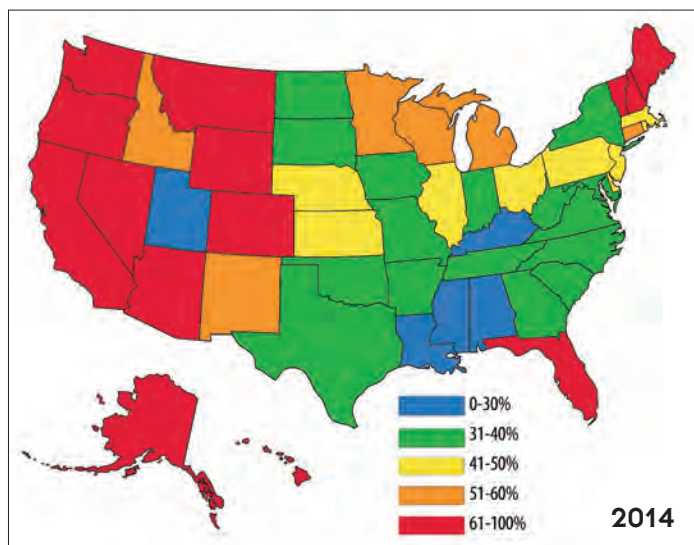
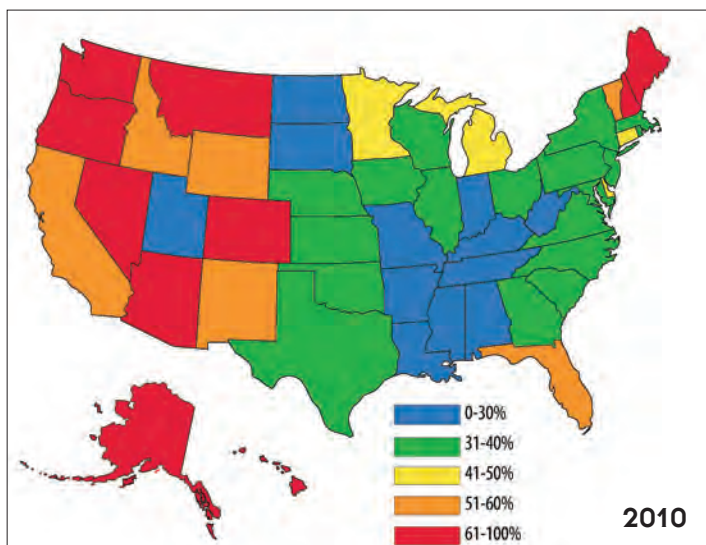
Annual Growth Rate

The annual growth rate is the difference between the yearly percentages of deaths cremated that are averaged over a five-year period. The table below shows the rates for the United States from 1999 through 2014. Further, this table illustrates that the cremation rate is increasing exponentially, with the current average growth at 1.49 percent annually.

Annual Growth Rate – Five Year Average USA	
Year	% Cremated
1999	24.8%
2004	31.2%
2009	39.3%
2014	46.7%
% change 1999-2004	6.3%
% change 2004-2009	8.1%
% change 2009-2014	7.4%
Annual Growth Rate per Year over 2009-2014	1.49%

Annual Growth Rate – Five Year Average Canada	
Year	% Cremated
2004	52.4%
2009	60.5%
2014	66.8%
% change 2004-2009	8.1%
% change 2009-2014	6.4%
Annual Growth Rate per Year over 2009-2014	1.27%

Percentages of Cremations in the States/Provinces for 2010 and 2014



Top 10 States for Cremations – 2013

The table below shows the 10 states with the highest **number** of cremations in 2013. *Note that the rank order is defined from highest as 1 to lowest as 51. The number in parentheses shows the rank order by percentage of that state.*

Top 10 ranked by number of cremations		
State	Cremations	% Cremations/Rank
California	144,425	58.0% (14)
Florida	112,829	61.7% (13)
Texas	67,184	37.6% (37)
New York	56,870	38.6% (35)
Pennsylvania	52,173	41.0% (28)
Michigan	48,604	52.6% (18)
Ohio	46,494	41.0% (27)
Illinois	43,371	42.3% (23)
Washington	38,043	74.2% (2)
Arizona	33,079	63.6% (12)

The table below shows the 10 states with the highest **percentage** of cremations in 2013. *Note that the rank order is defined from highest as 1 to lowest as 51. The number in parentheses shows the rank order by the total number of cremations in that state.*

Top 10 ranked by percent of cremations		
State	Cremations / Rank	% Cremations
Nevada	16,462 (24)	74.3%
Washington	38,043 (9)	74.2%
Oregon	24,704 (16)	72.8%
Hawaii	7,536 (36)	71.6%
Maine	9,270 (35)	69.5%
Montana	6,590 (40)	69.3%
New Hampshire	7,286 (37)	67.8%
Colorado	23,032 (17)	67.3%
Wyoming	2,959 (47)	66.2%
Vermont	3,486 (45)	64.5%

Bottom Five States for Cremations – 2013

The table below shows the bottom five states (in rank order) with the lowest **number** of cremations in 2013. *Note that the rank order is defined from lowest as 1 to highest as 51. The number in parentheses shows the rank order by number of that state.*

Bottom five ranked by number of cremations		
State	Cremations	% Cremations/Rank
Dist. of Columbia	2,235	40.0% (30)
Alaska	2,424	63.9% (11)
North Dakota	2,448	36.3% (39)
South Dakota	2,494	34.2% (43)
Wyoming	2,959	66.2% (9)

The table below shows the bottom five states (in rank order) and the percentage of deaths resulting in cremations with the lowest **percentages** of cremations in 2013. *Note that the rank order is defined from lowest as 1 to highest as 51. The number in parentheses shows the rank order by the percentage of that state.*

Bottom five ranked by percent of cremations		
State	Cremations/Rank	% Cremations
Mississippi	5,639 (42)	18.9%
Alabama	10,961 (31)	22.3%
Kentucky	10,198 (32)	23.6%
Louisiana	11,163 (29)	25.7%
Tennessee	18,170 (22)	27.2%

Top 10 States for Growth in Cremations

The table below shows the top 10 states with the highest growth in the number of cremations from 2009 to 2013.

State	Increase in # of Cremations	Increase in % of Cremations	Rank by % growth
Texas	17,488	7.6%	14
Florida	15,577	4.9%	35
California	12,901	1.3%	49
Illinois	10,165	9.2%	6
Ohio	9,910	6.9%	22
Michigan	9,346	7.1%	20
Pennsylvania	9,237	6.3%	26
Georgia	8,475	8.3%	9
New York	8,446	4.9%	36
Wisconsin	5,837	8.0%	12

The table below shows the top 10 states with the highest growth in the percentage of cremations from 2009 to 2013.

State	Increase in % of Cremations	Increase in # of Cremations	Rank by # growth
Wyoming	14.3%	739	44
Vermont	11.0%	817	43
Iowa	10.1%	3,289	26
North Dakota	9.7%	732	45
Kansas	9.4%	2,834	30
Illinois	9.2%	10,165	4
Oklahoma	9.1%	4,414	19
Minnesota	8.8%	4,413	20
Georgia	8.3%	8,475	8
South Dakota	8.2%	643	48

Bold indicates predicted numbers; final data not yet available.

Confirmed Deaths, Cremations, and Percent of Deaths Cremated, United States, 2013

State	2013 Cremations	2013 Deaths	% of Deaths Cremated	
			2009	2013
Alabama	10,961	49,237	15.5%	22.3%
Alaska	2,424	3,793	59.7%	63.9%
Arizona	33,079	51,971	62.5%	63.6%
Arkansas	9,855	30,095	25.5%	32.7%
California	144,425	248,917	56.7%	58.0%
Colorado	23,032	34,234	62.0%	67.3%
Connecticut	14,162	29,040	42.5%	48.8%
Delaware	3,485	7,953	39.1%	43.8%
Dist. of Columbia	2,235	5,588	35.6%	40.0%
Florida	112,829	182,968	56.8%	61.7%
Georgia	27,002	75,401	27.5%	35.8%
Hawaii	7,536	10,526	69.0%	71.6%
Idaho	7,164	12,426	53.0%	57.7%
Illinois	43,371	102,571	33.1%	42.3%
Indiana	21,473	60,445	28.3%	35.5%
Iowa	11,210	28,722	28.9%	39.0%
Kansas	11,028	25,347	34.1%	43.5%
Kentucky	10,198	43,279	17.4%	23.6%
Louisiana	11,163	43,487	19.2%	25.7%
Maine	9,270	13,339	62.6%	69.5%
Maryland	17,748	45,533	33.1%	39.0%
Massachusetts	22,421	53,728	36.3%	41.7%
Michigan	48,604	92,463	45.5%	52.6%
Minnesota	22,561	40,981	46.3%	55.1%
Mississippi	5,639	29,806	12.7%	18.9%
Missouri	22,218	57,256	30.6%	38.8%
Montana	6,590	9,509	64.8%	69.3%
Nebraska	6,634	15,853	35.2%	41.8%
Nevada	16,462	22,170	73.0%	74.3%
New Hampshire	7,286	10,742	60.5%	67.8%
New Jersey	28,190	70,632	33.9%	39.9%
New Mexico	9,367	16,790	53.0%	55.8%
New York	56,870	147,445	33.7%	38.6%
North Carolina	30,755	84,187	33.5%	36.5%
North Dakota	2,448	6,738	26.6%	36.3%
Ohio	46,494	113,352	34.1%	41.0%
Oklahoma	14,336	38,000	28.6%	37.7%
Oregon	24,704	33,914	67.9%	72.8%
Pennsylvania	52,173	127,377	34.6%	41.0%
Rhode Island	4,102	9,990	36.4%	41.1%
South Carolina	15,737	43,673	28.4%	36.0%
South Dakota	2,494	7,300	25.9%	34.2%
Tennessee	18,170	66,698	22.9%	27.2%
Texas	67,184	178,546	30.0%	37.6%
Utah	4,995	16,426	27.7%	30.4%
Vermont	3,486	5,402	53.5%	64.5%

State	2013 Cremations	2013 Deaths	% of Deaths Cremated	
			2009	2013
Virginia	25,091	61,992	33.3%	40.5%
Washington	38,043	51,255	69.4%	74.2%
West Virginia	6,245	21,419	21.8%	29.2%
Wisconsin	25,473	49,917	43.1%	51.0%
Wyoming	2,959	4,469	51.9%	66.2%
United States Total	1,171,381	2,592,902	39.3%	45.2%

Provisional Deaths, Cremations, and Percent of Deaths Cremated, United States, 2014

State	2014 Cremations	2014 Deaths	% of Deaths Cremated	
			2010	2014
Alabama	11,245	49,031	16.9%	22.9%
Alaska	2,562	3,894	61.3%	65.8%
Arizona	34,167	52,173	61.8%	65.5%
Arkansas	10,380	30,496	27.7%	34.0%
California	151,327	245,792	56.9%	61.6%
Colorado	24,570	35,750	63.3%	68.7%
Connecticut	14,842	28,917	43.1%	51.3%
Delaware	3,641	8,054	40.7%	45.2%
Dist. of Columbia	2,184	5,332	37.1%	41.0%
Florida	117,813	187,936	58.1%	62.7%
Georgia	27,111	73,954	31.9%	36.7%
Hawaii	7,894	10,872	69.0%	72.6%
Idaho	7,286	12,344	53.9%	59.0%
Illinois	43,409	102,002	35.3%	42.6%
Indiana	22,034	59,782	29.7%	36.9%
Iowa	11,244	28,917	31.4%	38.9%
Kansas	11,486	25,439	36.7%	45.2%
Kentucky	10,794	43,867	19.3%	24.6%
Louisiana	12,157	44,074	21.2%	27.6%
Maine	9,440	13,252	63.7%	71.2%
Maryland	17,543	44,283	35.2%	39.6%
Massachusetts	23,193	53,811	36.8%	43.1%
Michigan	49,095	90,264	47.3%	54.4%
Minnesota	23,626	41,469	49.5%	57.0%
Mississippi	5,857	29,726	13.8%	19.7%
Missouri	22,417	59,122	33.2%	37.9%
Montana	6,481	9,447	65.7%	68.6%
Nebraska	6,582	15,934	36.1%	41.3%
Nevada	17,149	22,589	72.2%	75.9%
New Hampshire	7,619	11,206	61.6%	68.0%
New Jersey	28,972	70,265	35.1%	41.2%
New Mexico	9,708	16,788	53.6%	57.8%
New York	58,635	146,274	34.9%	40.1%

Bold indicates predicted numbers; final data not yet available.
2014 numbers are provisional except for CA, HI, LA, NV, NH, ND, SD, UT, and WY

State	2014 Cremations	2014 Deaths	% of Deaths Cremated	
North Carolina	31,890	84,291	32.8%	37.8%
North Dakota	2,650	6,787	29.2%	39.0%
Ohio	48,679	114,508	35.5%	42.5%
Oklahoma	14,783	38,365	30.1%	38.5%
Oregon	24,707	33,455	69.4%	73.9%
Pennsylvania	54,087	126,103	36.1%	42.9%
Rhode Island	4,075	9,640	37.5%	42.3%
South Carolina	16,955	44,486	30.2%	38.1%
South Dakota	2,660	7,417	28.7%	35.9%
Tennessee	19,873	65,597	27.6%	30.3%
Texas	72,583	183,707	32.1%	39.5%
Utah	5,070	17,078	28.4%	29.7%
Vermont	3,576	5,435	58.8%	65.8%
Virginia	25,825	61,922	34.8%	41.7%
Washington	38,783	51,580	70.9%	75.2%
West Virginia	6,550	21,581	23.2%	30.4%
Wisconsin	25,860	49,371	44.9%	52.4%
Wyoming	3,077	4,633	55.7%	66.4%
United States Total	1,214,146	2,599,012	40.8%	46.7%

Deaths and Cremations by Region – 2013

Region	State	2013 Cremations	2013 Deaths	2013 % Cremations
East North Central	Illinois	43,371	102,571	42.3%
	Indiana	21,473	60,445	35.5%
	Michigan	48,604	92,463	52.6%
	Ohio	46,494	113,352	41.0%
	Wisconsin	25,473	49,917	51.0%
	Sub-Total Region	185,415	418,748	44.3%
East South Central	Alabama	10,961	49,237	22.3%
	Kentucky	10,198	43,279	23.6%
	Mississippi	5,639	29,806	18.9%
	Tennessee	18,170	66,698	27.2%
	Sub-Total Region	44,968	189,020	23.8%
Middle Atlantic	New Jersey	28,190	70,632	39.9%
	New York	56,870	147,445	38.6%
	Pennsylvania	52,173	127,377	41.0%
	Sub-Total Region	137,233	345,454	39.7%
Mountain	Arizona	33,079	51,971	63.6%
	Colorado	23,032	34,234	67.3%
	Idaho	7,164	12,426	57.7%
	Montana	6,590	9,509	69.3%
	Nevada	16,462	22,170	74.3%
	New Mexico	9,367	16,790	55.8%
	Utah	4,995	16,426	30.4%
	Wyoming	2,959	4,469	66.2%
	Sub-Total Region	103,648	167,995	61.7%

New England	Connecticut	14,162	29,040	48.8%
	Maine	9,270	13,339	69.5%
	Massachusetts	22,421	53,728	41.7%
	New Hampshire	7,286	10,742	67.8%
	Rhode Island	4,102	9,990	41.1%
	Vermont	3,486	5,402	64.5%
	Sub-Total Region	60,727	122,241	49.7%
Pacific	Alaska	2,424	3,793	63.9%
	California	144,425	248,917	58.0%
	Hawaii	7,536	10,526	71.6%
	Oregon	24,704	33,914	72.8%
	Washington	38,043	51,255	74.2%
	Sub-Total Region	217,132	348,405	62.3%
South Atlantic	Delaware	3,485	7,953	43.8%
	Dist. of Columbia	2,235	5,588	40.0%
	Florida	112,829	182,968	61.7%
	Georgia	27,002	75,401	35.8%
	Maryland	17,748	45,533	39.0%
	North Carolina	30,755	84,187	36.5%
	South Carolina	15,737	43,673	36.0%
	Virginia	25,091	61,992	40.5%
	West Virginia	6,245	21,419	29.2%
	Sub-Total Region	241,127	528,714	45.6%
	West North Central	Iowa	11,210	28,722
Kansas		11,028	25,347	43.5%
Minnesota		22,561	40,981	55.1%
Missouri		22,218	57,256	38.8%
Nebraska		6,634	15,853	41.8%
North Dakota		2,448	6,738	36.3%
South Dakota		2,494	7,300	34.2%
Sub-Total Region		78,593	182,197	43.1%
West South Central		Arkansas	9,855	30,095
	Louisiana	11,163	43,487	25.7%
	Oklahoma	14,336	38,000	37.7%
	Texas	67,184	178,546	37.6%
Sub-Total Region	102,538	290,128	35.3%	
USA Total		1,171,381	2,592,902	45.2%

Bold indicates predicted numbers; final data not yet available.
2014 numbers are provisional except for CA, HI, LA, NV, NH, ND, SD, UT, and WY

United States Deaths and Cremations 2014 by Region

Region	State	2014 Cremations	2014 Deaths	2014 % Cremations
East North Central	Illinois	43,409	102,002	42.6%
	Indiana	22,034	59,782	36.9%
	Michigan	49,095	90,264	54.4%
	Ohio	48,679	114,508	42.5%
	Wisconsin	25,860	49,371	52.4%
	Sub-Total Region	189,077	415,927	45.5%
East South Central	Alabama	11,245	49,031	22.9%
	Kentucky	10,794	43,867	24.6%
	Mississippi	5,857	29,726	19.7%
	Tennessee	19,873	65,597	30.3%
Sub-Total Region	47,769	188,221	25.4%	
Middle Atlantic	New Jersey	28,972	70,265	41.2%
	New York	58,635	146,274	40.1%
	Pennsylvania	54,087	126,103	42.9%
	Sub-Total Region	141,694	342,642	41.4%
Mountain	Arizona	34,167	52,173	65.5%
	Colorado	24,570	35,750	68.7%
	Idaho	7,286	12,344	59.0%
	Montana	6,481	9,447	68.6%
	Nevada	17,149	22,589	75.9%
	New Mexico	9,708	16,788	57.8%
	Utah	5,070	17,078	29.7%
	Wyoming	3,077	4,633	66.4%
	Sub-Total Region	107,508	170,802	62.9%
New England	Connecticut	14,842	28,917	51.3%
	Maine	9,440	13,252	71.2%
	Massachusetts	23,193	53,811	43.1%
	New Hampshire	7,619	11,206	68.0%
	Rhode Island	4,075	9,640	42.3%
	Vermont	3,576	5,435	65.8%
Sub-Total Region	62,745	122,261	51.3%	
Pacific	Alaska	2,562	3,894	65.8%
	California	151,327	245,792	61.6%
	Hawaii	7,894	10,872	72.6%
	Oregon	24,707	33,455	73.9%
	Washington	38,783	51,580	75.2%
	Sub-Total Region	225,273	345,593	65.2%

Bold indicates predicted numbers; final data not yet available.
2014 numbers are provisional except for CA, HI, LA, NV, NH, ND, SD, UT, and WY

Region	State	2014 Cremations	2014 Deaths	2014 % Cremations
South Atlantic	Delaware	3,641	8,054	45.2%
	Dist. of Columbia	2,184	5,332	41.0%
	Florida	117,813	187,936	62.7%
	Georgia	27,111	73,954	36.7%
	Maryland	17,543	44,283	39.6%
	North Carolina	31,890	84,291	37.8%
	South Carolina	16,955	44,486	38.1%
	Virginia	25,825	61,922	41.7%
	West Virginia	6,550	21,581	30.4%
	Sub-Total Region	249,512	531,839	46.9%
West North Central	Iowa	11,244	28,917	38.9%
	Kansas	11,486	25,439	45.2%
	Minnesota	23,626	41,469	57.0%
	Missouri	22,417	59,122	37.9%
	Nebraska	6,582	15,934	41.3%
	North Dakota	2,650	6,787	39.0%
	South Dakota	2,660	7,417	35.9%
	Sub-Total Region	80,665	185,085	43.6%
West South Central	Arkansas	10,380	30,496	34.0%
	Louisiana	12,157	44,074	27.6%
	Oklahoma	14,783	38,365	38.5%
	Texas	72,583	183,707	39.5%
	Sub-Total Region	109,903	296,642	37.0%
USA Total		1,214,146	2,599,012	46.7%

Projected United States Cremation Percentages 2019

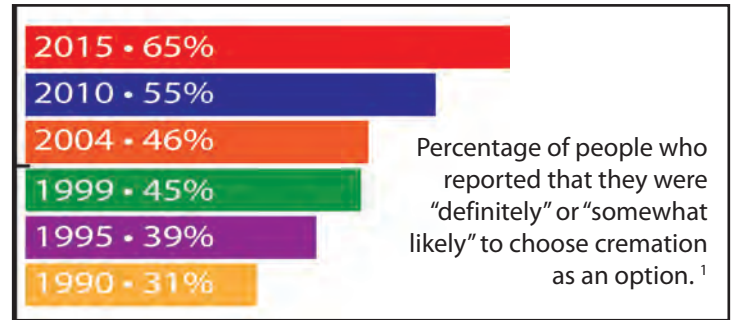
State	2013 % Cremations	2014 % Cremations	2019 % Cremations
Alabama	22.3%	22.9%	29.4%
Alaska	63.9%	65.8%	70.9%
Arizona	63.6%	65.5%	68.6%
Arkansas	32.7%	34.0%	41.6%
California	58.0%	61.6%	63.6%
Colorado	67.3%	68.7%	73.9%
Connecticut	48.8%	51.3%	58.0%
Delaware	43.8%	45.2%	51.7%
Dist. of Columbia	40.0%	41.0%	45.8%
Florida	61.7%	62.7%	67.6%
Georgia	35.8%	36.7%	43.4%
Hawaii	71.6%	72.6%	76.3%
Idaho	57.7%	59.0%	65.1%
Illinois	42.3%	42.6%	50.5%
Indiana	35.5%	36.9%	44.8%
Iowa	39.0%	38.9%	47.5%
Kansas	43.5%	45.2%	54.2%

State	2013 % Cremations	2014 % Cremations	2019 % Cremations
Kentucky	23.6%	24.6%	30.8%
Louisiana	25.7%	27.6%	33.7%
Maine	69.5%	71.2%	78.0%
Maryland	39.0%	39.6%	45.2%
Massachusetts	41.7%	43.1%	49.5%
Michigan	52.6%	54.4%	61.2%
Minnesota	55.1%	57.0%	64.3%
Mississippi	18.9%	19.7%	26.0%
Missouri	38.8%	37.9%	47.9%
Montana	69.3%	68.6%	75.9%
Nebraska	41.8%	41.3%	50.8%
Nevada	74.3%	75.9%	78.7%
New Hampshire	67.8%	68.0%	74.8%
New Jersey	39.9%	41.2%	47.3%
New Mexico	55.8%	57.8%	63.2%
New York	38.6%	40.1%	46.4%
North Carolina	36.5%	37.8%	44.5%
North Dakota	36.3%	39.0%	46.0%
Ohio	41.0%	42.5%	49.6%
Oklahoma	37.7%	38.5%	47.3%
Oregon	72.8%	73.9%	78.0%
Pennsylvania	41.0%	42.9%	49.9%
Rhode Island	41.1%	42.3%	49.5%
South Carolina	36.0%	38.1%	45.9%
South Dakota	34.2%	35.9%	44.4%
Tennessee	27.2%	30.3%	38.5%
Texas	37.6%	39.5%	46.6%
Utah	30.4%	29.7%	34.9%
Vermont	64.5%	65.8%	71.5%
Virginia	40.5%	41.7%	49.1%
Washington	74.2%	75.2%	79.8%
West Virginia	29.2%	30.4%	38.0%
Wisconsin	51.0%	52.4%	60.3%
Wyoming	66.2%	66.4%	77.4%
United States Total	45.2%	46.7%	52.9%

Bold indicates predicted numbers; final data not yet available.
 2014 numbers are provisional except for CA, HI, LA, NV, NH, ND, SD, UT, and WY

Major Trends Affecting Cremation

Key cremation growth drivers



As more consumers choose cremation, there is increasing interest in the factors influencing this change.

1. COST/VALUE

Monetary implications can be a key factor in memorialization decisions, both from a cost and a value perspective. With "saving money" cited most frequently as the main reason for choosing it, cremation is seen as an affordable alternative to burial. Cremation families understand the need to grieve a loss, but may find more value in options that are unavailable—or perceived as unavailable—through traditional funeral services. Cost is not the only consideration when determining this end-of-life transition.

2. NEW TRADITIONS

Preference for cremation mirrors demographic shifts in the population. As major religions become more tolerant of cremation, self-identified Protestants, Catholics, Baptists, and those affiliated with other religions report that they are "as likely" or up to 10% "more likely" to choose cremation than respondents in these same categories five years ago. Among respondents who claim no affiliation to organized religion, stated preference for cremation has risen from 60% in 2004, to 69% in 2010 and 91% in 2015.

3. RANGE OF OPTIONS/CONVENIENCE

Parallel to the rise in cremation is the trend toward personalization and the offering of a wider range of memorialization options. Cremation allows people to easily transport their loved one's remains, place them in a single location (a gravesite or a columbarium), scatter them at a favorite site (with appropriate permission from property owners), or divide and incorporate them into keepsake urns, jewelry, and other items so that multiple family members may keep a loved one close. Convenience for the family and flexibility in the timing of a memorial celebration are also cited as important considerations when opting for cremation.

¹"FAMIC Study," Funeral & Memorialization Information Council (FAMIC). 2015.

As more consumers choose cremation, there is increasing interest in the factors influencing this change.

Percentage of Deaths in Canada Resulting in Cremation—Projected to 2019

The total percentage of cremations resulting from deaths reflects the number of cremations and/or the rate of cremations that were provided for each province. Those figures do not include data from provinces that were “Not Available” (N/A).

Province	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2019
Alberta	58.0%	58.8%	59.8%	60.8%	61.9%	64.0%	65.5%	66.2%	67.2%	68.5%	69.4%	73.8%
British Columbia	77.9%	78.5%	78.6%	79.7%	79.6%	80.7%	81.4%	82.3%	82.5%	83.3%	83.5%	85.8%
Manitoba	52.0%	54.7%	53.3%	54.3%	57.5%	58.2%	59.6%	60.7%	59.5%	61.4%	63.7%	67.4%
New Brunswick	30.8%	35.1%	36.8%	38.6%	39.4%	43.8%	46.1%	49.3%	50.3%	54.2%	56.6%	63.6%
Newfoundland & Labrador	15.3%	18.1%	20.3%	21.0%	23.3%	26.3%	21.3%	22.8%	24.2%	26.9%	34.3%	31.5%
Northwest Territories	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0%	N/A
Nova Scotia	49.4%	50.2%	54.0%	57.1%	57.2%	60.2%	62.4%	63.6%	67.6%	70.5%	71.4%	78.7%
Nunavut	1.8%	0.0%	1.7%	1.9%	0.9%	0.0%	1.7%	8.1%	3.1%	0.7%	0.0%	4.8%
Ontario	47.4%	48.7%	50.1%	51.0%	54.4%	56.1%	57.2%	58.7%	60.0%	62.5%	62.0%	69.6%
Prince Edward Island	13.6%	13.9%	15.4%	16.5%	18.6%	20.5%	22.0%	25.2%	29.0%	30.3%	33.1%	42.4%
*Quebec	52.1%	54.3%	58.5%	58.6%	60.7%	62.2%	65.6%	64.1%	65.6%	69.6%	69.6%	75.3%
Saskatchewan	45.5%	46.1%	48.2%	49.3%	51.7%	53.5%	54.7%	55.6%	57.5%	59.1%	60.7%	66.4%
Yukon Territory	54.7%	60.1%	55.2%	58.6%	54.7%	64.2%	62.8%	63.5%	77.4%	79.4%	63.2%	77.2%
Canada Total	52.4%	53.8%	55.8%	56.6%	58.8%	60.5%	62.1%	62.7%	64.0%	66.6%	66.8%	72.7%

Total Cremations by Province

The table below shows the cremation totals provided by each province.

Province	2007	2008	2009	2010	2011	2012	2013	2014
Alberta	12,377	13,115	13,515	13,647	14,143	14,902	15,722	16,273
British Columbia	24,804	25,396	25,198	25,355	26,155	26,948	27,722	28,326
Manitoba	5,424	5,805	5,826	5,973	6,254	6,014	6,222	6,831
New Brunswick	2,455	2,662	2,797	2,924	3,135	3,280	3,584	3,845
Newfoundland & Labrador	941	1,052	1,151	951	1,032	1,122	1,261	1,620
Northwest Territories	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-
Nova Scotia	4,797	4,735	4,973	5,231	5,468	5,703	6,256	6,220
Nunavut	2	1	0	2	12	4	1	-
Ontario	44,509	47,795	49,429	50,801	53,099	53,606	56,294	58,653
Prince Edward Island	190	223	257	242	312	350	377	410
*Quebec	33,270	34,694	36,114	38,310	38,011	39,885	42,317	43,178
Saskatchewan	4,487	4,815	4,848	5,007	4,654	5,335	5,646	5,712
Yukon Territory	102	105	122	118	113	154	162	127
Canada Total	133,358	140,398	144,230	148,561	152,388	157,303	165,564	171,195

Bold indicates predicted numbers; final data not yet available.

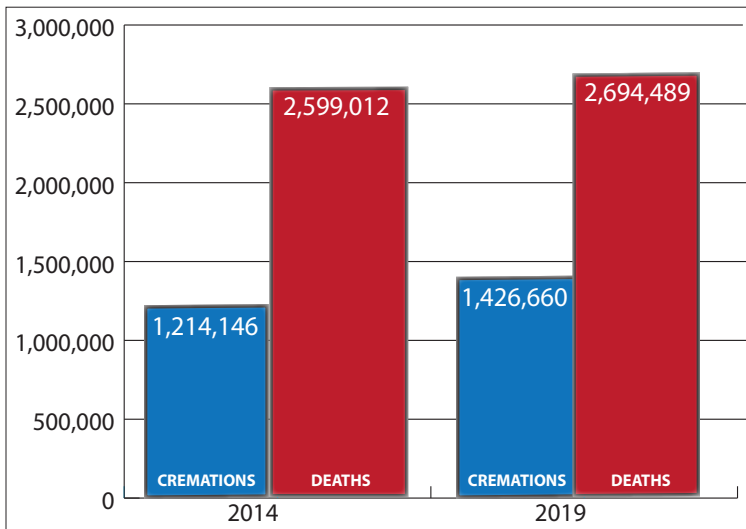
Total Deaths and Cremations, Canada

Projections based on five years' average increase compounded.

Canadian Totals	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2019
Deaths	226,465	230,252	228,551	235,513	238,732	238,436	239,228	242,853	245,672	248,778	256,089	272,213
Cremations	120,554	125,571	126,744	134,358	140,398	144,230	148,561	152,388	157,303	165,564	171,195	197,992

*Previously, CANA's 2006-2012 Canadian data excluded Québec because the Institut de la Statistique du Québec was no longer able to provide these figures. However, in this year's report, we are able to include the numbers from 2010-2013 based on data collected from a new source. Numbers from 2003-2009 are projected through regression analysis of the new data.

Current Versus Projected Deaths and Cremations in the United States



This graph shows a comparison of the current year (2014) deaths and cremations to the 2019 projections. The 2014 provisional data were collected from the individual state agencies or estimated based on 2012-2013 state data and 2014 provisional death count from the CDC.

The 2019 rates were calculated based on an average of the past five years' growth rates compounded annually.

CANA's Projections Versus Actual Deaths to Cremations Comparisons in the United States

Year	% of U.S. Cremations to Deaths			# of U.S. Cremations (in thousands)		
	Projected	Actual	Difference	Projected	Actual	Difference
1988	15.7%	15.3%	-0.4%	N/A	N/A	N/A
1989	16.2%	16.4%	+0.2%	N/A	N/A	N/A
1990	16.9%	17.0%	+0.1%	N/A	N/A	N/A
1991	17.47%	18.50%	+1.03%	N/A	N/A	N/A
1992	18.89%	19.11%	+0.22%	N/A	N/A	N/A
1993	20.16%	19.78%	-0.38%	438.5	448.5	+10.0
1994	20.79%	20.60%	-0.19%	469.2	471.0	+1.8
1995	21.49%	21.14%	-0.35%	496.8	488.3	-8.5
1996	21.78%	21.77%	-0.01%	514.1	502.1	-12.0
1997	22.04%	23.13%	+1.09%	520.9	533.8	+12.9
1998	23.75%	23.99%	0.24%	553.4	558.2	+4.8
1999	25.39%	24.81%	-0.58%	595.6	599.7	+4.1
2000	25.56%	26.17%	0.61%	605.1	628.8	+23.7
2001	27.25%	27.01%	-0.24%	651.2	652.8	+1.6
2002	27.78%	28.15%	0.37%	677.7	688.3	+10.6
2003	28.63%	29.53%	0.90%	693.7	723.7	+30.0
2004	29.61%	31.25%	+1.64%	708.7	745.9	+37.2
2005	31.99%	32.13%	0.14%	778.0	790.5	+12.5
2006	33.53%	33.87%	0.34%	800.2	821.6	+21.4
2007	34.89%	34.60%	-0.29%	842.5	838.6	-3.9
2008	36.02%	36.22%	0.20%	884.3	895.4	+11.1
2009	37.02%	38.15%	+1.13%	901.4	931.7	+30.3
2010	40.62%	40.60%	-.02%	998.5	998.8	+0.3
2011	42.10%	42.00%	-.10%	1036.4	1055.9	+19.5
2012	42.00%	43.30%	+1.3%	1073.9	1097.5	+23.6
2013	45.3%	45.2%	-0.10%	1142.5	1171.4	+28.9
2014	46.7%	N/A	N/A	1214.1	N/A	N/A



Singhal LLC • Management Consultants

Arvin Singhal develops and applies statistical analytical techniques and courses. He has advised on improving the operational efficiency of several Fortune 500 companies such as International Paper, Georgia Pacific, Kapstone, RockTenn, and Packaging Corporation of America. Additionally, he has developed and uses a simplified Six Sigma Process.

Arvind earned his Bachelor of Engineering from IIT, Roorkee, Master of Science in Engineering from Western Michigan University, and an MBA from Kellogg School of Management, Northwestern University.

Cremation Association of North America (CANA) has retained Singhal LLC for its data analysis and projections. As part of the agreement, CANA members are entitled to a no-obligation, free initial consultation over the phone. Please email Arvind Singhal at ConsultSinghal@yahoo.com for details.

Number of Crematories per State (U.S.)

State	2009	2010	2012	2013	2014
Alabama	34	34	34	37	39
Alaska** ±	8	8	11	11	11
Arizona	51	51	50	53	54
Arkansas	23	23	26	29	32
California ±	189	204	225	232	232
Colorado ±	50	38	58	60	60
Connecticut	25	25	18	19	19
Delaware *	15	15	13	13	16
District of Columbia	0	0	0	0	0
Florida ±	141	141	168	184	184
Georgia	69	70	88	96	97
Hawaii	11	11	17	17	17
Idaho	28	28	29	31	33
Illinois	97	99	111	111	125
Indiana ±	55	55	89	91	91
Iowa	35	35	35	35	35
Kansas	30	31	33	34	34
Kentucky	21	25	27	29	29
Louisiana	16	16	20	23	24
Maine	8	9	11	11	12
Maryland	33	33	35	35	35
Massachusetts	15	15	18	18	21
Michigan ±	97	97	97	104	104
Minnesota	51	51	57	59	61
Mississippi	14	14	20	18	21
Missouri	46	56	60	62	64
Montana	24	32	34	33	35
Nebraska	25	25	26	26	26
Nevada	21	16	17	16	22
New Hampshire	14	14	15	16	17
New Jersey **	31	31	41	47	50
New Mexico	20	20	26	26	26
New York	54	54	48	48	48
North Carolina	85	104	109	118	123
North Dakota	3	3	6	7	7
Ohio	99	98	112	127	128
Oklahoma	32	32	44	43	45
Oregon	62	65	65	65	65
Pennsylvania ** ±	92	92	174	177	177
Rhode Island	9	12	13	13	13
South Carolina	40	40	63	71	72
South Dakota	8	8	12	12	12
Tennessee	36	43	44	53	53
Texas	93	93	135	145	148
Utah	8	8	8	9	9
Vermont	10	10	11	11	12

Virginia	75	75	98	104	104
Washington *** ±	74	77	81	88	88
West Virginia	18	18	20	24	25
Wisconsin	77	77	100	98	98
Wyoming	11	11	14	14	14
TOTAL	2145	2254	2671	2803	2867

* From the state EPA

** Crematories from the state list of funeral establishments

*** Establishments in any of four licensing categories

± Updated 2014 figures not yet available; 2013 figures used.

Total Cremations Carried Out in the United Kingdom

Source: *Pharos International*, the official journal of the Cremation Society of Great Britain, Volume 80, Issue 2: Summer 2014.

Year	Operating Crematoria	New Crematoria	Deaths**	Cremations	Percentage
1960	148	17	588,032	204,019	34.70
1970	206	2	638,834	353,957	55.41
1980	220	1	644,684	420,717	65.26
1990	225	0	629,629	438,066	69.58
1991	225	0	634,339	441,108	69.54
1992	226	1	622,410	437,000	70.21
1993	227	1	646,477	453,045	70.08
1994	228	1	616,719	434,223	70.41
1995	229	3*	649,635	445,574	68.59
1996	230	1	640,081	445,934	69.67
1997	234	4	633,635	446,305	70.44
1998	238	4	633,062	439,145	69.37
1999	240 ⁽¹⁾	3	635,785	444,169	69.86
2000	242	2	611,960	437,609	71.51
2001	242	0	605,835	428,383	70.71
2002	242	1	609,943	437,124	71.67
2003	242	1	615,177	442,538	71.94
2004	242	1	588,753	424,835	72.16
2005	242	3	586,829	424,684	72.37
2006	250	2	576,211	416,881	72.35
2007	253	3	578,716	417,920	72.22
2008	253	0	583,754	422,853	72.44
2009	256	4	563,741	413,870	73.41
2010	260	5*	565,776	413,780	73.13
2011	265	5	556,434	413,845	74.37
2012	266	1	573,199	425,784	74.28
2013	270	5*	580,582+	436,280	75.15+
2014	273	3	574,093+	429,254	74.77+

* Includes replacement of existing crematorium.

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⁽¹⁾ Includes Arnos Vale which closed in 1998.

+ Provisional figures

International Cremation Statistics

Information below based on data published by the Cremation Society of Great Britain and its journal, *Pharos International*.

Country	Crematories	2013			2012		
		Deaths	Cremations	% of deaths	Deaths	Cremations	% of deaths
Andorra	1	270	96	35.56	260	94	36.15
Austria	11	79,526	30,591	38.47	79,436	28,004	35.25
Belgium	17	*109,034	58,890	*54.01	*109,034	55,681	*51.00
Canada	-	248,778	165,564	66.60	245,488	157,303	64.07
China	1,745				9,600,000	4,684,000	48.8
Colombia	17	54,968	17,399	31.65	33,634	15,132	44.99
Cuba	5	42,794	5,337	12.47	20,633	5,591	27.1
Czech Republic	27	109,160	85,800	78.6	108,189	85,342	78.88
Denmark	20	52,471	42,349	80.71	52,325	40,909	78.18
Eire	4	30,018	4,041	13.46	28,848	3,732	12.94
Finland	22	51,472	23,702	46.05	51,465	22,648	44.01
France	163	561,000	191,503	34.14	546,716	179,007	32.74
Germany	165	860,000	468,700	54.5			
Ghana	8	70,100	4,050	5.78	61,475	3,550	5.77
Haiti	1		198			157	
Hong Kong	6	43,399	39,914	89.67	43,672	39,494	90.43
Iceland	1	2,215	606	27.36	1,952	489	25.05
Italy	66	600,744	110,710	18.43	612,883	101,842	16.62
Japan	1,509	1,325,144	1,324,766	99.97	1,316,254	1,315,684	99.96
Luxembourg	1	3,822	2,276	59.55	4,326	2,208	51.04
Namibia	1		523			500	
Netherlands	76	141,100	86,018	60.96	140,813	83,379	59.21
New Zealand	-	29,568	-	*72.00	30,099	-	*72.00
Norway	24	41,327	15,725	38.05	42,028	15,455	37.77
Peru	8	1,398	814	58.23	1,155	702	60.78
Poland	29	387,300		*16.00	384,800		*14.00
Portugal	18	7,445	3,994	53.65	7,215	3,682	51.03
Romania	3	246,640	839	0.34	255,457	859	0.34
Serbia	2	15,300	3,061	20.01	15,933	2,878	18.06
Singapore	4	18,938	15,160	80.05	18,481	14,620	79.11
Slovenia	2	19,334	15,944	82.47	19,257	15,609	81.06
South Korea	55	266,257	204,750	76.9	267,221	197,717	73.99
Spain	132	16,058	7,194	44.8	17,111	7,450	43.54
Sweden	62	90,402	72,310	79.99	91,938	71,575	77.85
Switzerland	28	64,800	53,205	82.11	64,173	50,567	78.8
Taiwan	36	155,908	144,162	92.47	154,251	142,552	92.42
Thailand	2,077	438,648	350,918	80	423,213	338,570	80
Trinidad & Tobago	4	11,182	925	8.27	11,097	1,013	9.13
United Arab Emirates	1	1,684	21	1.25	580	5	0.86
United Kingdom	270	*580,582	436,280	*75.15	572,962	425,784	74.31
USA	2,803	2,592,902	1,171,381	45.20	2,537,163	1,097,779	43.27
Zimbabwe	2	5,071	107	2.11	5,717	144	2.52

For countries in the list below, the Cremation Society of Great Britain was only able to supply the number of crematories. Other data were not available for publication.

Country	# of crematories
Argentina	95
Aruba	1
Australia	79
Bahamas	1
Brazil	43
Bulgaria	1
Costa Rica	2
El Salvador	1
Estonia	2
Grenada	1
Guatemala	1
Hungary	12
India	N/A
Indonesia	7
Jamaica	2
Latvia	1
Malaysia	7
Mauritius	98
Mexico	70
Mongolia	2
Panama	5
Philippines	2
Poland	13
Puerto Rico	3
Russia	16
Slovak Republic	3
South Africa	33
Spain	132
Sri Lanka	45
Suriname	2
Ukraine	3
Vietnam	2

* provisional data

Historical Cremation Data—United States and Canada

YEAR	UNITED STATES			CANADA		
	Deaths	Cremations	%	Deaths	Cremations	%
1876-84		28				
1885-89		724				
1890-94		2,897				
1895-99		7,189				
1900		2,363				
1901		2,713				
1902		3,200			3	
1903		3,532			6	
1904		4,093			16	
1905		4,328			19	
1906		4,537			19	
1907		5,436			27	
1908		6,152			52	
1909		5,690			88	
1910		6,466			97	
1911		7,524			74	
1912		9,109			71	
1913		10,183			64	
1914-18		65,571			N/A	
1919-21		40,568			N/A	
1922		15,563		106,100	141	0.13%
1923		16,516		108,900	152	0.14%
1924-28		101,467		538,700	N/A	
1929-33		142,346		553,100	3,044	0.55%
1934-38	7,100,000	182,054	2.56%	554,800	4,160	0.75%
1939-43	7,048,000	226,227	3.21%	586,000	6,319	1.08%
1944-48	7,098,000	264,002	3.72%	601,000	8,375	1.39%
1949-53	7,393,000	299,202	4.05%	628,800	12,225	1.94%
1954	1,481,000	N/A	N/A	124,900	N/A	N/A
1955	1,529,000	N/A	N/A	128,500	N/A	N/A
1956	1,564,000	N/A	N/A	132,000	N/A	N/A
1957	1,633,000	N/A	N/A	136,600	N/A	N/A
1958	1,648,000	58,760	3.57%	135,200	3,724	2.75%
1959	1,657,000	59,376	3.58%	139,900	4,096	2.93%
1960	1,712,000	60,987	3.56%	139,700	4,537	3.25%
1961	1,702,000	61,595	3.62%	141,000	4,891	3.47%
1962	1,757,000	63,435	3.61%	143,700	5,138	3.58%
1963	1,814,000	67,330	3.71%	147,400	5,792	3.93%
1964	1,798,000	67,658	3.76%	145,900	6,382	4.37%
1965	1,828,000	70,796	3.87%	148,900	6,906	4.64%
1966	1,863,000	73,339	3.94%	149,900	7,388	4.93%
1967	1,851,000	77,375	4.18%	150,300	7,991	5.32%
1968	1,930,000	83,977	4.35%	153,200	8,081	5.27%
1969	1,922,000	85,683	4.46%	154,500	8,408	5.44%
1970	1,921,000	88,096	4.59%	156,000	9,188	5.89%
1971	1,928,000	92,251	4.78%	157,300	9,406	5.98%
1972	1,964,000	97,067	4.94%	162,400	11,717	7.21%

YEAR	UNITED STATES			CANADA		
	Deaths	Cremations	%	Deaths	Cremations	%
1973	1,973,000	112,298	5.69%	164,000	15,880	9.68%
1974	1,934,400	119,480	6.18%	166,800	17,415	10.44%
1975	1,892,900	123,918	6.55%	167,400	20,694	12.36%
1976	1,910,900	140,052	7.33%	171,000	22,615	13.23%
1977	1,902,100	145,733	7.66%	167,500	24,713	14.75%
1978	1,924,100	163,260	8.49%	171,000	28,456	16.64%
1979	1,905,000	179,393	9.42%	170,600	30,274	17.75%
1980	1,989,841	193,343	9.72%	172,000	32,423	18.85%
1981	1,977,981	217,770	11.01%	173,000	34,884	20.16%
1982	1,974,797	232,789	11.79%	183,700	37,222	20.26%
1983	2,019,201	249,182	12.34%	184,000	41,887	22.76%
1984	2,039,369	266,441	13.06%	185,500	44,630	24.06%
1985	2,086,440	289,091	13.86%	190,500	49,216	25.84%
1986	2,105,361	300,587	14.28%	195,000	54,482	27.94%
1987	2,123,323	323,371	15.23%	197,000	53,867	27.34%
1988	2,167,999	332,183	15.32%	186,600	57,568	30.85%
1989	2,150,466	352,370	16.39%	195,500	60,087	30.74%
1990	2,148,463	367,975	17.13%	193,000	62,797	32.54%
1991	2,169,518	400,465	18.46%	195,000	66,087	33.89%
1992	2,175,613	415,966	19.12%	185,211	64,557	34.86%
1993	2,268,553	448,532	19.77%	193,557	70,017	36.17%
1994	2,278,994	470,915	20.66%	195,331	75,489	38.65%
1995	2,312,132	488,224	21.11%	210,545	79,206	37.62%
1996	2,306,470	502,120	21.77%	207,772	81,960	39.45%
1997	2,308,077	533,773	23.13%	209,395	85,196	40.69%
1998	2,327,411	558,238	23.99%	213,004	90,200	42.35%
1999	2,417,619	599,691	24.81%	219,836	101,454	46.15%
2000	2,401,062	628,807	26.19%	223,789	106,756	47.70%
2001	2,415,487	652,826	27.03%	223,580	110,327	49.35%
2002	2,441,044	688,299	28.20%	167,975	81,453	48.49%
2003	2,445,069	723,686	29.60%	226,267	116,690	51.60%
2004	2,395,680	745,875	31.13%	226,465	120,554	53.23%
2005	2,442,940	790,548	32.36%	230,252	125,571	54.53%
2006	2,429,578	821,592	33.82%	228,551	126,744	55.50%
2007	2,426,126	838,628	34.57%	235,513	134,088	56.93%
2008	2,471,877	895,370	36.22%	238,732	140,707	58.93%
2009	2,437,986	931,722	38.22%	238,436	144,598	60.64%
2010	2,460,767	998,799	40.59%	239,228	148,561	62.10%
2011	2,511,627	1,055,995	42.04%	242,853	152,388	62.74%
2012	2,537,713	1,097,589	43.25%	245,488	157,303	64.10%
2013	2,592,902	1,171,381	45.20%	248,778	165,564	66.60%
2014	2,599,012	1,214,146	46.70%	256,089	171,195	66.80%

Please note: numbers from the years 1876 to 1913 in the report above have been updated based on research by CANA Historian Jason Ryan Engler. The E.P. Samson Pittsburgh data (1914) and the known number of cremations from the J.S. Cobb Massachusetts report (1901) have been merged to include previously missing statistics from the Baltimore Crematory.

APPENDIX

G 2015 LOT SALES FEE AND INTERMENT & ASSOCIATED FEES

Lot Sale Fees 2015*(as of January 1, 2015)*

Infant Grave (Flat Marker)	\$ 200.00
Single Grave (Flat Marker)	\$ 900.00
Single Grave (Monument)	\$ 1,200.00
Two Grave (Flat Marker)	\$ 1,800.00
Two Grave (Monument)	\$ 2,000.00
Three Grave (Flat Marker)	\$ 2,500.00
Three Grave (Monument)	\$ 2,600.00
Four Grave (Monument)	\$ 3,600.00
Eight Grave (Monument)	\$ 6,550.00
Ten Grave (Monument)	\$ 7,350.00

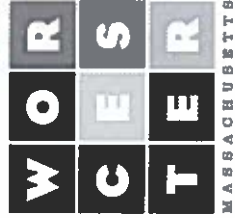
*Lot Sale Fees***HOPE CEMETERY****Interment & Associated Fees****January 1, 2015**

Adult Opening M-F	\$ 900.00
Adult Opening Sat-Holiday	\$ 1,500.00
Infants M-F (including lot)	\$ 400.00
Infants Sat-Holiday	\$ 700.00
Assisted Infant Burial	\$ 300.00
Assisted Burials	\$ 750.00
Assisted Cremations	\$ 450.00
Vault Installation	\$ 300.00
Cremation M-F	\$ 450.00
Cremation Sat-Holiday	\$ 650.00
(to add a tent it would be at the cost of)	\$ 1050.00
Tents/Canopy	\$ 175.00
Reuse/Lowering	\$ 400.00
Removal Inside Cemetery	\$ 1,750.00
Removal Outside Cemetery	\$ 1,500.00
Wilbert - Way Service / Outside Vendor	\$ 550.00
Chapel	\$ 200.00
*Min of 4hrs @ \$50.00 per hour weekdays	

Interment Fees

APPENDIX

H PUBLIC HEARING INVITATION CARDS



City of Worcester
DPW and Parks - Parks, Recreation and Cemetery Division
Date: November 30, 2015 **Time: 6:30PM**
Place: City Hall, Council Chambers, Room 302
455 Main Street, Worcester, MA 01608

Hope Cemetery Master Plan Public Hearing # 1

Topic to include:

The presentation of existing conditions, existing uses and history of Hope Cemetery. This presentation will be followed by an open public discussion, question and comment period to allow the Department to better understand and ascertain the needs, wants and desires of the neighbors, citizens and organizations that currently use this facility. The information and public comments will be synthesized to develop a Master Plan, to guide all future community/neighborhood endorsed improvements.

INVITATION

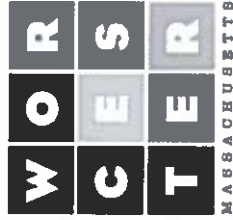
All are Invited and Encouraged to Attend.

The City of Worcester does not discriminate on the basis of disability. The Parks, Recreation and Cemetery Division will provide auxiliary aids and services, written materials in alternative formats, and reasonable modifications in policies and procedures to persons with disabilities upon advance request.

Please contact the Parks Division at paris@worcesterma.gov, or Phone (508) 799-1190 or The City ADA Coordinator at disabilities@worcesterma.gov.

Phone: (508) 799-1190
Fax: (508) 799-1293
E-Mail: paris@worcesterma.gov

Call (508) 799-1294 in the event of severe weather, for up-to-date meeting status.



City of Worcester

DPW and Parks - Parks, Recreation and Cemetery Division

Date: December 14, 2015 Time: 6:30PM

**Place: City Hall, Council Chambers, Room 302
455 Main Street, Worcester, MA 01608**

**Hope Cemetery Master Plan
Public Hearing # 2**

Topic to include:

The continued discussion of the existing conditions, existing uses and history of Hope Cemetery. The City will continue to take comments to further develop a list of needs, wants and desires of the neighbors, citizens and organizations that currently use this facility. All presented information and subsequent public comments will be synthesized to develop a Master Plan, to guide all future community/neighborhood endorsed improvements.

INVITATION

All are Invited and Encouraged to Attend.

Phone: (508) 799-1190

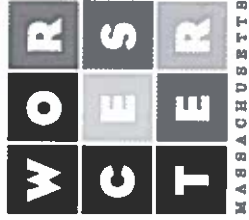
Fax: (508) 799-1293

E-Mail: parks@worcesterma.gov

Call (508) 799-1294 in the event of severe weather, for up-to-date meeting status.

The City of Worcester does not discriminate on the basis of disability. The Parks, Recreation and Cemetery Division will provide auxiliary aids and services, written materials in alternative formats, and reasonable modifications in policies and procedures to persons with disabilities upon advance request.

Please contact the Parks Division at parks@worcesterma.gov, or Phone (508) 799-1190 or The City ADA Coordinator at disabilities@worcesterma.gov.



City of Worcester

DPW and Parks - Parks, Recreation and Cemetery Division

Date: May 3, 2016 Time: 6:15PM

**Place: Levi Lincoln Chamber, Room 309 (3rd Floor)
455 Main Street, Worcester, MA 01608**

**Hope Cemetery Master Plan
Public Hearing # 3**

Topic to include:

The continued discussion of the existing conditions, existing uses and history of Hope Cemetery. Followed by the presentation of ideas and preliminary plans (based on the previous two public hearing comments) developed to meet the needs, wants and desires of the neighbors, citizens and organizations that currently use the facility. The hearing will conclude with a public question and comment forum. All presented information and subsequent public comments will be synthesized to develop a Master Plan, to guide future community and neighborhood endorsed improvements.

INVITATION

All are Invited and Encouraged to Attend.

The City of Worcester does not discriminate on the basis of disability. The Parks, Recreation and Cemetery Division will provide auxiliary aids and services, written materials in alternative formats, and reasonable modifications in policies and procedures to persons with disabilities upon advance request.

Phone: (508) 799-1190

Fax: (508) 799-1293

E-Mail: pariks@worcesterma.gov

Please contact the Parks Division at pariks@worcesterma.gov,

or Phone (508) 799 -1190

or The City ADA Coordinator at disabilities@worcesterma.gov.

Call (508) 799-1294 in the event of severe weather, for up-to-date meeting status.

APPENDIX

I

PUBLIC HEARING ATTENDANCE SHEETS

DPW & Parks - Parks, Recreation and Cemetery Division

Hope Cemetery Public Hearing Number One

City Hall Council Chambers, Room 302, 455 Main Street, Worcester, MA 01608

Robert C. Antonelli Jr., Assistant Commissioner

November 30, 2015 @ 6:30 PM



	Name (PLEASE PRINT)	Address	Phone No.	E-Mail Address
1	REV. DR. DIMITRIOS MORAITIS			
2	NICK KOTSOPoulos			
3	PAUL V. SWYDAR			
4	AL MARATIAS			
5	Math Grewitz			
6	Jose Cervini			
7	Nicole Apostola			
8	Dina Papan			
9	Spive Giannopoulos			
10	JANET PARENT			
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DPW & Parks - Parks, Recreation and Cemetery Division

Hope Cemetery Public Hearing Number Two

City Hall Council Chambers, Room 302, 455 Main Street, Worcester, MA 01608

Robert C. Antonelli Jr., Assistant Commissioner

December 14, 2015 @ 6:30 PM



	Name (PLEASE PRINT)	Address	Phone No.	E-Mail Address
1	Richard Simons			
2	DR. KHALID SADOZAI			
3	Mohamad elrefaey			
4	Philip G. Hoodoo, Jr			
5	PAUL V. SAYDAN			
6	Alicia Al Matulnic			
7	Joseph James-Cucchi			
8	JOSEPH-DOLGARA			
9	Steven Fesler			
10	JANET PARENT			
11	KENNETH PETERSON			
12	Michael C. Moschos			
13	Kathleen Perry			
14	ALFRED CHARREUM			
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DPW & Parks - Parks, Recreation and Cemetery Division

Hope Cemetery Public Hearing Number Three

Levi Lincoln Chamber, Room 309, 455 Main Street, Worcester, MA 01608

Robert C. Antonelli Jr., Assistant Commissioner

May 3, 2016 @ 6:15 PM



	Name (PLEASE PRINT)	Address	Phone No.	E-Mail Address
1	Michael Parent			
2	Jane Parent			
3	Valerie Loring			
4	STEPHEN LORING			
5	Philip G. Hood			
6	Kathy Perry			
7	KENNETH PETERSON			
8	KEN LUNDQUIST			
9	TOM BLY			
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APPENDIX

J

HOPE CEMETERY RULES AND REGULATIONS

Hope Cemetery Rules & Regulations



City of Worcester
Department of Public Works and Parks
Parks, Recreation & Cemetery Division
Worcester, Massachusetts

June 2, 2017

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1.0 History of Hope Cemetery, Worcester, Massachusetts: Hope Cemetery, dedicated in 1852, is Worcester's second garden cemetery, born of the "rural cemetery" movement inspired by romantic perceptions of nature, art and the themes of death, as well as by the realities of civic development and identity.

As early as the late 1840's, the need for a civic cemetery was under discussion as other older burial grounds either filled up or fell victim to neglect. By the end of the century, remains from the Mechanic Street, Tatman and Pine Meadow Cemeteries were re-interred at Hope, and in the 1960's burials were moved here from Worcester Common.

A city-owned Hope Cemetery is the last resting place of many of the people who shaped Worcester - industrialists and workers, inventors and mechanics, men and women and people of all ages, races and beliefs.

Hope Cemetery is truly a reflection of Worcester's diversity. Few places in the city offer better evidence of the ethnic saga of Worcester as it mirrors the melting pot of all of the United States.

Before acquiring their own cemetery in 1986, Worcester's growing Jewish community looked to Hope Cemetery to ensure proper burial. There are two Jewish burial sections in the cemetery acquired between 1881 and 1916.

A large Muslim lot purchased in 1919 abuts a similar group lot secured by the Syrian Brotherhood Orthodox Society in 1911.

In the early 1980's, The Council of Eastern Orthodox Churches purchased and facilitated the development of an Orthodox section where each Memorial Day, the Worcester churches gather in the cemetery to pray.

Although never a large community, a group of Norwegians established a lot in the cemetery in 1884. Charles Hanson, the first Swedish resident of Worcester is interred at Hope Cemetery.

Ung Shee Chin, the first Chinese woman to make her home in Worcester is interred at Hope Cemetery.

Hope Cemetery occupies approximately 168 acres of rolling land which has been carefully worked to create views and vistas that enhance the natural beauty of the grounds. The siting of the roads and paths, many of which are named for the beautiful trees that flourish here, as well as the placement and scale of the mausoleums, all reflect a sense of design that for over a century and a half has continued to make this a "beautiful spot". In 1998, Hope Cemetery was placed on the National Register of Historical Places. The recognition assists in the preservation of the cemetery as part of the city's great heritage.

2.0 Preamble: In order to ensure the character of the cemetery, in accord with the mind and practice of the City of Worcester, and to establish and maintain the cemetery in good order, the City Manager, with advice from the Hope Cemetery Commission through the DPW and Parks Department, is empowered and has the right to create and enforce the following Rules and Regulations as adopted herein and to exclude from the cemetery any person violating the same. The City Manager shall operate the cemetery through the Department of Public Works & Parks: Parks, Recreation and Cemetery Division.

3.0 Formal Adoption: For the mutual protection of the license holders, families and visitors in the City of Worcester's Cemetery, in accordance with the Massachusetts General Laws Chapter 114, Sec. 21 and Sec. 27, do hereby adopt the following rules and regulations. All license holders and persons within the cemetery, and all graves and other burial options shall be subject to said Rules and Regulations. The Governing Body shall adopt such amendments or alterations thereof or additions thereto as needed from time to time. Reference to the Rules and Regulations in the document conveying the right of interment shall have the same force and effect as if set forth in full therein. Recommended by the Hope Cemetery Commission on _____, 2017.

4.0 Definitions:

Burial Rights- This is not a purchase of property, but the rights to burial within a grave(s) or lot, which is defined as grave spaces.

Cemetery- all property within the City of Worcester Hope Cemetery dedicated for the burial of deceased human remains.

Cremation Niche - see Niche.

Cremated Remains- the final processed substance remains of the reduced composition of the body to inorganic bone fragments.

Cemetery Commission- The Hope Cemetery Commission serves in an advisory capacity to the City Manager, the Department of Public Works & Parks and the Assistant Commissioner of the Parks, Recreation & Cemetery Division or his/her designee. The Commission is established in Part Two, Organization of City Agencies of the Revised Ordinances of 2015, Article 5, Section 11.

Decorations- the adornment, ornamentation, embellishment, memorialization, care, or beautification of a grave in accordance with the rules and regulations established by the Governing Body of the Cemetery.

Deed- see License of Burial and Burial Rights.

Durable Outer Container- A vault, grave liner, lawn crypt or other outer container approved by the Management.

Entombment- the permanent placement of remains in a crypt in a mausoleum.

Flag Etiquette- the requirement that a flag of the United States placed upon a grave to honor a Veteran shall not touch the ground and shall not be allowed to remain if torn or faded or beyond a specified time period as determined by regulations of the Department of Defense Veteran Affairs and the Governing Body of the cemetery.

Flag Holders- known also as a commemorative marker, a device made to hold a flag of the United States and identifies the branch of service during observances honoring military.

Funeral Director - Under 239 CMR 3.00, Funeral Director means any individual engaged, or holding himself or herself out as engaged, in the Profession and Business of Embalming and Funeral Directing.

Governing Body - the independent managing authority of a cemetery as applied to a national, state veteran's cemetery, municipal cemetery, religious cemetery or private non-profit cemetery. For Hope Cemetery the Governing Body is the City Manager through the Department of Public Works & Parks: Parks, Recreation & Cemetery Division, or his/her designee with advice from the Hope Cemetery Commission.

Grantee - See License Holder and Licensee.

Grave - a space of ground in a cemetery used, or intended for use, for the burial of deceased human remains. (Please see License of Burial for the number of burial rights granted and specification for ground burial.)

Grave Liner - an unsealed durable outer container of two or more pieces in which the casket is placed at time of burial in the earth.

Interment - the permanent placement of a dead human body placed in a casket or other enclosure approved by the Management, in an outer burial container, and buried in the ground.

Inurnment - the permanent placement of a cremated human body placed in an urn, and inurned in a niche or chamber.

Lawn Crypt - a pre-installed, durable, permanent liner, placed in a double-depth earth burial grave that allows for two (2) traditional casket burials of the human dead, with one casket being interred above a second casket burial with a durable partition dividing the two areas.

License Holder - the sole purchaser of the licensed rights of burial of a grave, mausoleum crypt or cremation niche.

License of Burial- a written document that records the sole purchaser of licensed burial rights of a grave (s), lot, crypts or niches located in a cemetery.

Licensee- License Holder

Lot- a place designated in a cemetery comprised of more than one grave spaces.

Lot Holder- See License Holder.

Management - the person or persons duly appointed by the Governing Body for the purpose of conducting and administering the operations of the cemetery owned and operated by the City of Worcester. The Cemetery office is currently located at 119A Webster Street, Worcester, Massachusetts.

Memorials - Monuments and Markers

Traditional Monument: an upright monument, usually with a base and die and made of granite, raised and set on a foundation commemorating the life of a deceased person or persons and placed at the head of a grave(s).

Tablet Monument: a monument usually made of granite, raised and set on a foundation, at the head of the grave commemorating the life of a deceased person or persons.

Flat Marker: flush to the ground memorial usually made of bronze or granite, commemorating the life of a deceased person or persons and placed at the head of the grave. The use of flat markers as memorials is determined by the Management and may vary with the grave/lot and section layout.

Foot Marker: a memorial centered at the foot of an individual grave, flush to ground and usually made of bronze or granite.

Veteran's Marker: a foot marker usually made of bronze or granite provided by the US Government specifically for a veteran.

See "Specifications and Requirements for Monuments and Markers" for requirements in various sections within the cemetery.

Niche - a discrete chamber designed, constructed, and intended for use as a permanent repository, for the inurnment of cremated human remains, encased in an urn.

Perpetual Care - an arrangement made by the cemetery whereby restricted funds (Principal) are set aside, the income of which is used to help maintain the cemetery, indefinitely.

Rights of Interment - the rights given to a License Holder for the use of a specific burial grave, crypt or niche.

Tomb - a structure so designed for the temporary storage of casketed bodies, which are not to be interred immediately.

Vault - an outer burial container that is a two-piece sealed receptacle for additional protection of the casket.

5.0 Purpose of Cemetery: The cemetery is intended for the interment of those entitled to burial according to the requirements of the General Laws of Chapter 114 and the City of Worcester Hope Cemetery Rules and Regulations. Management appointed by the Governing Body shall decide any questions on the burial of any others not defined according to the Rules & Regulations, and such will be binding on both parties.

The conveyances of the rights of interment shall be exclusively limited to those Worcester residents or individuals approved by the Management of Hope Cemetery, City of Worcester. Management shall have final authority on conveyance of all burial rights. The Governing Body may determine residency requirements.

6.0 Admission to Cemetery: The Management reserves the rights to refuse admission to the cemetery and the use of any cemetery equipment or facilities at any time to any person or persons, as the rules, judgment, and traditions may dictate.

No organization, except those approved by the Management will be permitted to conduct services in the cemetery.

The Management shall be in no way liable for any delay in an interment of a body where a protest to the interment has been made, or where Rules & Regulations have not been complied with, or forbid such interment; and further, said Management reserves the right under those circumstances for the agent to hold the body until rights have been determined. Any protest shall be required to be in writing and filed in the office of the cemetery.

7.0 Interment / Entombment Procedures: (see also Instructions to License Holders)
Burial services shall be performed between the hours of 8:30 AM and 2:00 PM; Monday through Friday. Interments/entombments requested beyond the scheduled hours shall be at the discretion of the Management and shall be charged according to the "Cemetery Price List". There will be no interment services scheduled on Sundays and the following legal holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Memorial Day, Thanksgiving Day and Christmas Day, or days determined by the Governing Body or cemetery Management. A list of all "No Service Days" is available at the cemetery office.

A Board of Health Burial Permit, a signed Interment Authorization Form and any and all fees for each burial service must be presented to Management before any interment is completed.

Services entering the cemetery shall be under the charge and direction of cemetery Management or their designee. The casket or other enclosure may not be opened at any time within the cemetery without the express permission and in the presence of Management. Management reserves the right to refuse permission without the consent of the legal representative of the deceased or without a court order or authority of civil authority.

8.0 Disinterment / Removal Procedures: No disinterment or removal of a deceased body or cremated remains shall be allowed without permission of Management, or an authorized court order, written authorization of the License Holder and all heirs and a Disinterment/Burial Permit from the Board of Health and the payment of all appropriate fees. No removal of a memorial shall occur without permission of Management or an authorized court order, written authorization of the License Holder and all heirs.

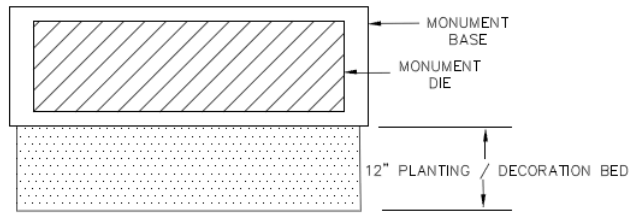
9.0 Correction of Errors: The Management reserves, and shall have the right to correct any errors that may be made by it either in making an interment, inurnment, disinterment, removal, or in the description, transfer, or conveyance of any rights. This may be done by canceling such conveyances and substituting and conveying in lieu thereof other interment or inurnment rights of equal value and similar location as best possible selected by Management.

10.0 Instructions to License Holders:

10.1 Scheduling of Interments: Persons wishing to select a grave, or arrange an interment, shall contact or call the cemetery office in ample time to complete the respective arrangements in accordance with information on the “Interment Authorization Form” and “Cemetery Price List”. Management will be available to assist in coordination of and confirmation of the necessary arrangements. A Funeral Director as your agent may complete this for you. Arrangement by phone for services will not guarantee the correct information for arrangement. A minimum notice of forty-eight (48) hours is requested for arrangements for interment (Monday—Friday). Services requested after 12:00 PM on Fridays will result in a Tuesday interment.

If a Funeral Director or other authorized agent is representing the License Holder or their heirs, the arrangements made by the agent with Management are binding on said License Holder.

10.2 Memorials and Decorations: License Holders may, at their own expense, install a planting/decoration bed area in front of their respective traditional or tablet monuments only. Beds may not exceed 12" in front of the monument and no longer than the length of the base. The planting/decoration bed shall be maintained in a neat appearance at all times. (No planting/decoration beds are allowed at any flush to the ground surface memorials or markers.)



PLANTING/DECORATION BED – PLAN VIEW

Sample drawing of planting / decoration area

Any objects placed on a grave or any cemetery grounds which, in the opinion of Management, is deemed offensive, improper or detrimental to the general appearance and safety of the cemetery, may be removed without notice. Examples of such decoration are, but not limited to the following: borders, wind chimes, large shepherd's / witch's hooks, decorative flags that are hung on metal support frames, glass items or stones.

The following are not permitted:

- Placement of items or plantings within the planting/decoration area higher than the monument,
- The planting of trees, shrubbery, vines, rose bushes or other growing perennial boundaries,
- The use of fencing or edging around planting beds,
- Stones used as groundcover,
- Live flamed candles,
- Planting beds at flush markers.

Scheduled clean-up and maintenance of the entire cemetery will be posted twice a year (refer to Clean-up Document Spring/Fall on file at the cemetery office).

10.3 Durable Outer Containers: All interments of a casket or a cremation container shall be made using a durable outer container made of concrete or other durable material in accordance with specifications determined by the Management. Use of a grave liner, lawn crypt, vault or urn vault is approved. No two-piece top covers are allowed. No durable outer container used for burial may exceed 36-inches total width and 96-inches total length.

10.4 Capacity: Each single grave is granted the right of ground burial of two (2) deceased human remains, being (1) of full casket burial and one (1) of cremated remains per designated grave as detailed in the License of Burial, unless recorded otherwise on the License of Burial. Management may approve additional burial rights.

The Management reserves the right to permit or authorize more than one human remains in one grave. The City of Worcester, where acceptable, allows the burial rights of two deceased persons in a single grave. (Please review your License of Burial).

10.5 Heirs: The use of the lot or grave is for the license holder and their designee only, and not for resale or profit. The rights of interment in an unoccupied lot or grave, may only be relinquished to the cemetery first with a written request or transferred to a family member if approved. In the event of the death of the license holder, any and all rights and privileges remaining shall pass to the family legal heirs. Management will follow the Commonwealth of Massachusetts Laws pertaining to the rights of heirs. All rights of the License Holder and the heirs will be documented with the use of an Interment Authorization Form for each interment right granted.

11.0 Service Fees and Payments: The Management shall establish fees for services and accept payment for each interment, disinterment, and removal, memorial foundations and for the performance of any other service rendered by the cemetery. All work and services in connection with such services shall be subject to and supervised by said Management.

Any indebtedness due for work or services performed must be paid before an interment in the grave may be made, or before a memorial is erected, as the case may be.

The current Schedule of Fees may be modified from time to time and is contained in a document titled "Cemetery Price List".

12.0 Right to Replat and Change: The Management may replat sections of the cemetery at any time for the erection of buildings, grave development or for any purpose or use connected with, incident to, or convenient for, the care, preservation, or preparation for interment of the deceased or other cemetery purpose. Replatting may include enlarging, diminishing, altering in shape or size or otherwise changing all or part of a portion of any cemetery, including establishing, closing or otherwise modifying the roadways, walks, or drives.

13.0 No Easement Granted: No easement or right is granted to any license holder in any road, drive, walkway or open space within the cemetery, but such roads, drives or walkways may be used as a means of access to the cemetery, family grave (s) and its buildings as long as Management devotes said areas for that purpose.

14.0 Conduct in the Cemetery: The cemetery is a sacred place. Persons visiting the Cemetery are expected and required to conduct themselves in a courteous and respectful manner at all times. No persons should use the cemetery for loitering, playing, or boisterous demonstration. Rubbish disposal, picnicking, flower or shrub sales, soliciting, placement of signs and advertisement and improper assemblages are prohibited.

The use of motorized vehicles and bicycles is limited to paved driveways and are specifically excluded from walkways and grassed areas. Speed shall be limited to ten miles per hour maximum (10 MPH).

Alcoholic beverages and recreational drugs are prohibited from the cemetery grounds.

Children must be accompanied by a parent or guardian when on cemetery grounds.

No pets are allowed within the confines of the cemetery.

15.0 Grading & Improvements: Management reserves the right to complete all landscape work or improvements of any kind and complete all care of lots and graves or plant, trim, cut or remove all trees, shrubs and herbage within the cemetery grounds. As such, all such improvements or alteration in the cemetery shall be by the cemetery and under the direction of and subject to the approval of Management.

16.0 Cemetery Hours: The office hours are 8:00 A.M. to 3:00 P.M. Monday through Friday. The grounds are open for visitation daily from 7:30 AM to dusk.

17.0 Outside Workers: The management reserves, and shall have, the right to give authorization to any non-Worcester cemetery employees, workers and agents (Memorial Dealers & Funeral Directors) before they may do work in Hope Cemetery. Any outside worker shall request and receive authorization from the Management before they may do work in the City of Worcester's Hope Cemetery.

18.0 Employees: Cemetery employees are not permitted to do any work for a License Holder, heir or visitor, except upon the order of the Management. Employees are required to be civil and courteous to all visitors at all times.

19.0 Loss or Damage: The Management disclaims all responsibility for loss or damage beyond its reasonable control, and especially from damage by an act of God, the elements, insurrections, riots, order of any military or civil authority, thieves, vandals, strikers, malicious mischief makers, explosions, unavoidable accidents, or any cause similar or dissimilar beyond Management's control, whether the damage is direct or collateral. In the event it becomes necessary to reconstruct, or repair any section of the cemetery, including graves, niches or crypts or any portion thereof, Management shall give written notice of repairs and repair the area. If it is the responsibility of the license holder or its heirs to repair said damage, then said notice will be sent to the last known address of the license holder. If the license holder does not repair the damages in a reasonable time, the Management may direct the repairs to be made and charge the expense against the lot or grave and to the holder of record.

20.0 License Holder's Change in Address: It shall be the duty of the license holder, and their heirs to notify the Management of any changes in its post office address. Notice sent to the license holder at the last address in the records shall be considered sufficient and proper legal notification.

21.0 Perpetual Care: Hope Cemetery is a Perpetual Care Cemetery. All money that is designated for the Cemetery's Perpetual Care Fund is used for Cemetery purposes: The principal portion is set aside for investment and the proceeds (income) thereof are used to provide general care. Perpetual Care is to be understood as that care and maintenance necessitated by natural

growth and ordinary wear, and includes efforts of the Management and staff in the care of the cemetery including tasks such as cutting of lawns, tree care, cleaning and maintenance of grounds, roadways, walks and buildings, provided there is sufficient income funds for these purposes. Perpetual Care does not mean the maintenance, repair or replacement of any memorial (i.e. monuments or markers) placed or erected upon any lot or grave: nor the planting, cutting, watering or care of any privately planted flowers, trees or shrubs: nor does it mean the reconstruction of any memorials/markers or special work on a lot or grave.

22.0 Memorials & Markers - Rules for Memorial Work: License Holders have the right to place one permanent memorial as detailed in the current “Specifications and Requirements for Monuments and Markers” on file at the cemetery office.

All memorial monuments shall be placed by outside workers in a location centered at the head of a grave or centered on a lot if multiple graves are so licensed at the head of the graves. All memorial monuments shall be installed on a foundation as installed by the cemetery. All Veteran’s Administration (VA) and Foot Markers will be set flush to ground and on a foundation approved and installed by the cemetery, at the foot and center of each individual grave. A fee for the service of installing a foundation for a monument/memorial will be set by the governing body and cemetery Management. All types of approved memorials or markers to be placed on said graves remain the property of the individual License Holder. Therefore, any safety concerns, damage due to weather, acts of God, vandalism, malicious mischief, or theft, are the owner’s responsibility and should be included on their home owner’s insurance policy.

A temporary memorial when provided by the Funeral Home for a deceased individual may be placed at the head of the grave at the time of interment services; however, they will be removed in a timely manner and are considered as part of grave decoration and not a permanent memorial.

The license holder, its heirs and its authorized agents (memorial dealers/stone cutters) shall abide by the following:

Prior to their placement of any memorials or markers, the License Holder and their Memorial Dealer shall submit the following to the Cemetery Management:

- 1) A Memorial Permit Authorization Form signed by the License Holder (or heirs of said lot or grave) and the Memorial Dealer,
- 2) A detailed drawing of the design of the memorials, tablets and markers indicating dimensions, material, inscriptions and images,
- 3) A Certificate of Insurance on file.

The Management shall review and approve or review and reject monuments, tablets and markers to be placed in the cemetery based on their size, material or inscriptions. Memorials and inscriptions thereon deemed by the Management to be obscene, offensive, unreasonable, commercial, or oversized will be rejected. The size, location and position in which the memorial is to be placed or erected shall be as outlined in current “Specifications and Requirements for Monuments and Markers” on file at the cemetery office and shall be entirely subject to approval of and under the supervision of Management.

Memorial work may only be completed in its cemetery during cemetery hours listed herein.

Memorial dealer employees, in placing or erecting monuments or markers or bringing materials in regards to such work, shall operate in a safe and efficient manner at all times. As independent contractors, they shall be responsible at all times for their work as well as any damage to other monuments / memorials and/or cemetery grounds. All work must conform to the Cemetery Rules and Regulations.

Should any monument or marker become unsightly, dilapidated or a menace to the safety of persons within the cemetery, the Management shall have the right to give written notice to the License Holder or heirs to correct the condition or to remove the same, at the expense of the license holder.

Soliciting memorial sales or service work within the Cemetery is not permitted.

All memorials/ monuments will be placed on a suitable foundation. Foundations shall be installed by the Cemetery or their designee.

23.0 Private Family Estate Mausoleum Memorial: Private Family Estate Mausoleums are allowed in the cemetery only by special approval of the Management. Management shall have final approval as to the specification, size and style.

24.0 Persons Aggrieved: Persons aggrieved by these Rules and Regulations and/or the operations or applications by Management have the right of appeal when made in writing to the Management. The Management will have final approval.

25.0 General: The City of Worcester and its Department of Public Works & Parks, Parks: Recreation & Cemetery Division, through its Management reserves the right, without notice, to make temporary exemptions, suspensions, or modifications of any of the rules & regulations when in its judgement, the same appears advisable. In no way, will it be coincided as affecting the general application of such rules and regulations.

The City of Worcester, through its Management, reserves the rights at any time to change, amend, alter, repeal, rescind, or add to these rules and regulations or any part thereof, or to adopt any new rule or regulation with respect to its cemetery or anything pertaining thereto.

The City of Worcester does not discriminate in its programs and activities based on age, color, gender expression/identity, genetic information, marital status, national origin, physical or mental disability, pregnancy, race, religion, sex, sexual orientation, or veteran status, as applicable. Direct inquiries to: Human Resources City Hall Room 109, 508-799-1030, EEOAA@worcesterma.gov

26.0 Authorization: The above revised Rules and Regulations were approved by the City of Worcester and the Management of the cemetery on the ____ day of _____, 2017

Approved to form on
Date _____
City of Worcester Law Department

City Manager
Approved on
Date _____

Notes

APPENDIX

K REVISED FORMS

CITY OF WORCESTER
DEPARTMENT OF PUBLIC WORKS AND PARKS
Hope Cemetery Division 119A Webster Street Worcester, MA
01603

Paul J. Moosey, P.E.
Commissioner



Robert C. Antonelli, Jr., CPRP
Assistant Commissioner

(508) 799-1531
(508) 799-1253 FAX

Edward M. Augustus, Jr., City Manager

License of Burial

The City of Worcester and its City's Hope Cemetery existing under the laws of the Commonwealth of Massachusetts (hereinafter called the Cemetery) in consideration of

_____ (\$.) Dollars

hereby grants to _____,
of _____ Address
_____ City, State, Zip Code

(Hereinafter called the licensee) the exclusive right of and license for burial of the human dead in the grave / lot of land hereinafter designated in Hope Cemetery, Worcester, Massachusetts, of which the sum of

_____ (\$.) Dollars

is to be held in trust for perpetual care as hereinafter provided.

Section _____
Grave(s) No. _____
Lot No. _____
Date of Purchase _____

Said Grave(s) or Lot is to be used only for those whom the City of Worcester and their Cemetery Management expressly allow, subject to the Hope Cemetery Rules and Regulations as amended, By-laws, and Orders of the Cemetery and its management now or hereafter in force, to the provisions of the statutes of the Commonwealth of Massachusetts now or hereafter in force, and to the annexed conditions, restrictions, limitations, and privileges as hereinafter set forth.

City Manager through the Department of Public Works & Parks; Parks, Recreation & Cemetery Division hereby issues this License of Burial.

Cemetery Administration Authorized Signature _____

Title _____

this ____ day of _____, 20__

This License is subject to Conditions, Limitations, Restrictions and Privileges as specified in the current edition of the “Hope Cemetery Rules, Regulations” or specified hereon.

First: The licensee shall have the right of burial of two (2) deceased human remains, being, (1) full casket burial and one (1) of cremated remains per designated grave. This is based on the requirements and size restrictions of each casket burial being within a durable outer container not exceeding 36 inches wide, 96 inches long and 32 inches in height so required.

Second: The license shall be issued to one person, and meet the City’s requirement of residency.

Third: The license is not transferable without the written consent of the Public Works & Parks; Parks, Recreation & Cemetery Division and Cemetery management.

Fourth: Unless specified otherwise herein or by rule or regulation, the licensee shall have the right to have a memorial, centered at the head of the grave(s), but all such memorial or monument shall not exceed the dimensions and style of the section licensed in, and shall be set on a suitable foundation, which shall be built by the Cemetery, under the supervision of the management, but at the expense of the licensee, and are to be paid for in advance. The licensee shall also have the right to have a foot marker, centered at the foot of the grave and flush to the earth as allowed within the section licensed in. No memorial, monument, shall be erected, placed or inscribed, without the written approval and general supervision of the City of Worcester, Public Works & Parks; Parks, Recreation & Cemetery Division or their designee. The City of Worcester and its Cemetery will not be responsible for the care or safety of any memorial, marker or structure that may be placed by permission on said lot or grave. All memorials, including monuments, markers or attached vases remain the property of the individual License Holder. All Memorials shall comply with “Specifications and Requirements for Monuments and Markers”. All styles and dimensions of memorials by sections and number of graves are recorded at the cemetery office.

Fifth: The Cemetery agrees that it will cut the grass and raise all sunken ground on said grave or lot, whenever necessary (except at such times as the Cemetery cannot comply due to causes beyond its control). It is forbidden to remove the sod, or in any way mutilate or disturb the surface of this grave or surrounding land for any purpose without permission of the cemetery, otherwise the cost of repairing same and restoring it will be charged to such grave and be a lien thereon. The City of Worcester, Public Works & Parks; Parks, Recreation & Cemetery Division Director and the Cemetery shall not be obliged to make a separate investment of the portion of the sale price set aside for perpetual care under the within license. All sums received for perpetual care shall collectively constitute a separate fund called the “Perpetual Care Trust Fund”, which shall be invested under the direction of the City Treasurer and authorized Trustees for the funds. The income of this fund will be used only within the budget of the cemetery for the operation, care and maintenance of the cemeteries and the individual grave(s) so mentioned.

Sixth: The licensee may have the right to a planting area, 12 inches in front of their upright memorial only. No trees, shrubs, bushes or perennials are allowed to be planted. No grading, sodding, planting or landscape work is permitted without written approval from the Public Works & Parks; Parks, Recreation & Cemetery Division and cemetery management. Should any grading, landscaping, decorating, or planting be made without approval, the City, acting through the cemetery management shall have the right to enter upon said grave or lot and remove such plantings, decorations or change such work at the expense of the licensee. The cemetery management shall have the right to remove, all decorations, floral designs, flowers, shrubs, memorial objects, shepherd hooks, flame candles, holiday remembrances which in opinion of management, exceeds the planting area, is deemed offensive, improper, unsafe or detrimental to the general appearance of the cemetery, may be removed without any notice. Complete clean-up of the cemetery including all plantings, memorial decorations, and general items will be completed twice a year and will be posted with notice.

Seventh: In order to entitle the licensee to the opening of a grave, removal of remains, setting, inscription or removal of memorial stone or monument, the licensee or authorized agent, shall be present at the cemetery office of the Public Works & Parks; Parks, Recreation & Cemetery Division, and in addition to written request signed by all of the interested parties. The designee approved by the City or management will perform all services within the cemetery.

Eighth: All burials shall have an outside container of durable construction to protect the casket or cremated remain from earth load, according to size and specifications on file with the cemetery office.

Ninth: Disinterment and removals of human remains from the cemetery may be made upon final order of a court having jurisdiction. In the absence of such order, no disinterment or removal from the cemetery or from one grave to another will be allowed without the consent of the Public Works & Parks; Parks, Recreation & Cemetery Division, and Cemetery management and the written authorization of persons entitled there to by the provisions of chapter 114 and chapter 190 section 3 of the General Laws of Massachusetts.

Tenth: In case the Licensee/ License Holder and or its heirs’ desires to relinquish or transfer the burial rights to said grave or lot, it must first offer in writing to the Governing Body, which reserves the right to offer the original cost, less the amount to be forfeited for Perpetual Care as set above.

Eleventh: The income of the Perpetual Care Trust Fund as established shall be used in accordance with the recommended spending policy, at the sole discretion and in the best judgment of the Governing Body for the general maintenance, improvements and embellishment of the City of Worcester Hope Cemetery as a whole, including the operating expenses of their cemetery, and for the care of the grave or lot as herein agreed.

Twelfth: In case of a violation of any of the conditions and rules and regulations of the Public Works & Parks; Parks, Recreation & Cemetery Division, this License of Burial shall terminate at the option of the Governing Body, and the licensee, or anyone claiming rights or interest under him or her shall have no claim in law or equity to any right or privilege in or to said Licensee of Burial to said grave or lot.

CITY OF WORCESTER
DEPARTMENT OF PUBLIC WORKS AND PARKS
Hope Cemetery Division 119A Webster Street Worcester, MA 01603

Paul J. Moosey, P.E.
Commissioner



Robert C. Antonelli, Jr., CPRP
Assistant Commissioner

(508) 799-1531
(508) 799-1253 FAX

Edward M. Augustus, Jr., City Manager

Cemetery Price List
Effective March 1, 2017
Lot Sale Fees 2017

Infant Grave (Flat Marker)	\$ 200.00
Single Grave (Flat Marker)	\$ 1,000.00
Single Grave (Flat Marker- Section 108A only)	\$ 1,100.00
Single Grave (Monument)	\$ 1,500.00
Two Grave (Flat Marker)	\$ 2,100.00
Two Grave (Monument)	\$ 2,700.00
Three Grave (Flat Marker)	\$ 3,000.00
Three Grave (Monument)	\$ 3,500.00
Four Grave (Monument)	\$ 4,500.00
Eight Grave (Monument)	\$ 10,500.00
Ten Grave (Monument)	\$ 15,000.00

Fees for Lot Sales (License of Burial) include a portion to be placed into funding of the Perpetual Care Fund.

*Fees for Lot Sales (License of Burial) do not include foundations for memorials or providing or setting of markers / memorials. Nor does it include the cost of such memorials / markers which are separate costs borne by the License Holder with a monument company.

Internet orders are **NOT** accepted

Cemetery Price List

Effective March 1, 2017

Fees for Interment & Associated Services

Adult Opening M-F	\$ 1,100.00
Adult Opening Sat-Holiday	\$ 1,650.00
Infants M-F (including lot)	\$ 400.00
Infants Sat-Holiday	\$ 700.00
Assisted Infant Burial	\$ 300.00
Assisted Burials	\$ 750.00
Assisted Cremations	\$ 500.00
Vault Installation	\$ 350.00
Cremation M-F	\$ 500.00
(to add a tent it would be at the cost of)	\$ 1,000.00
Cremation Sat-Holiday	\$ 1,200.00
Tents/Canopy	\$ 175.00
Reuse/Lowering	\$ 400.00
Removal Inside Cemetery	\$ 2,000.00
Removal Outside Cemetery	\$ 1,500.00
Wilbert- Way Service / Outside Vendor	\$ 550.00
Chapel	\$ 400.00
*Min of 4 hrs @ \$100.00 per hour	

**All M-F burials are to be completed by 2:30pm, which includes the funeral party to have departed the gravesite area, or an additional \$500.00 will be charged.

** Burial arrangements (tents) must be made in completion by 12:00 pm day prior to the burial with the Cemetery Office.

**All Saturday and holiday burials must be completed by 11:30 am, which includes the funeral party to have departed the gravesite area. An additional charge of \$500.00 will be added if family wishes to have burial between 12:00pm - 2:30pm.

** No tents allowed in January / February / March at the Cemetery's discretion

** NO CASH IS ACCEPTED

** Checks, money orders, and credit cards are accepted

** NO CASH IS ACCEPTED. Checks, money orders, and major credit cards are accepted

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Edward M. Augustus, Jr., City Manager

Acknowledgment of Receipt of Hope Cemetery Rules and Regulations

I, the undersigned, acknowledge that I have been given a copy of the **Hope Cemetery Rules and Regulations** and have been explained to me.

I furthermore understand that the **Hope Cemetery Rules & Regulations** are subject to change without notice. Hope Cemetery will attempt to notify license holders, heir or families, or will identify the lot or grave location before action is taken when plots are not in compliance regarding decorations, plantings, and memorials or markers.

Section _____ Grave # _____ Lot # _____

Print Name _____ Email _____

Address _____ Home Phone _____

_____ Cell Phone _____

Print / Cemetery Designee

Signature

Signature

Date

Date

CITY OF WORCESTER
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Edward M. Augustus, City Manager

Interment Authorization Form

The undersigned hereby requests and authorizes City of Worcester, Hope Cemetery, and the Cemetery management, subject to its Rules and Regulations, on _____ day of _____ 20____, at Hope Cemetery, Worcester, MA. to inter the remains of

Print

late of _____
Address _____

who died at _____ on the _____ day of _____ 20____

in Grave No. _____ Section No. _____ Lot No. _____

Age _____ Years _____ Months _____ Days.

I hereby certify that I am the _____ of the above decedent, and that I have the _____ relationship

authority to make disposition of the remains of said decedent as indicated above. I hereby certify and represent that I have the right to make this authorization and agree to hold the City of Worcester, Department of Public Works & Parks, and its Parks, Recreation & Cemetery Division management harmless from any liability on account of said authorization and interment.

Printed _____

Signed _____

Address _____
License Holder or legal Representative

State relationship to original License Holder _____

Funeral Director (signature) _____

At least forty-eight hours' notice is required before an interment will be made. Winter months require a forty-eight notice. Interment orders must be signed by the license deed holder or legal representative, and after the decease of the proprietor/license holder by all authorized person(s). No Interment will be made without a Board of Health Burial Permit. The cemetery will not be responsible for orders and location of graves received by telephone. All fees must be paid at or before any interment service unless the funeral home takes charges.

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Edward M. Augustus, Jr., City Manager

Application to Purchase Burial Rights for Prior Assisted Burial

I , being the..... of
(Print)

..... Who died on.....
(Print deceased name)

and was buried on in the City of Worcester, Hope Cemetery, in Section.....
Grave # I understand that at the time of burial this grave and interment was an assisted burial,
with payments being incurred by the City and the Commonwealth and the grave is currently
licensed to the City of Worcester. I(print)
hereby request subject to Hope Cemetery Rules and Regulations, to pay all amounts incurred by
the City of Worcester associated with this grave and interment and purchase said burial rights and
be listed as the License Holder of said grave with all privileges allowed. I hereby certify and
represent that I have the right to make this request and agree to hold Hope Cemetery and the City
of Worcester harmless from any liability on account of said request.

Print Name of Representative
Representative

Signature Funeral Home
Representative

Date

Address

Phone Number

Email

Notary Public

Signature

Date

Date

Application of Purchase Burial Rights for Prior Assisted Burial
January 8, 2018

CITY OF WORCESTER
DEPARTMENT OF PUBLIC WORKS AND PARKS
Hope Cemetery Division 119A Webster Street Worcester, MA 01603

Paul J. Moosey, P.E.
Commissioner



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Edward M. Augustus, Jr., City Manager

Application for Foundation, Monument or Marker

to set Monument to cut inscription
 make modifications or additions to remove & reset memorial
 to set foot marker or Veteran's Marker

Please use reverse side or attach as necessary to describe memorial and inscriptions. Show all attachments.
The undersigned hereby requests permission to have the above worked performed on:

Section _____ Grave(s) / Lot(s) _____

Licensed to: _____
Name of Deed License Holder

License Holder _____
To be signed by licensee or legal representative Relationship to original license holder

Address _____ Email _____

Phone _____

In consideration of the foregoing, I (we) hereby agree to hold harmless and indemnify the said City of Worcester, Department of Public Works & Parks, and cemetery management from and against all damages, losses, cost, charges and expenses which said Cemetery may sustain, incur, or be liable for, or in consequence of any such claims or damages. I (we) will abide by the By-laws, Rules and Regulations of said City of Worcester and its cemeteries, which now or may hereafter be in force and effect. I (we) hereby certify under penalties of perjury, that the statement herein is true and is made for the purpose of inducing said cemetery to act under this application. Please allow a permit to be issued to:

Monument Company _____ Phone _____

Address _____ Email _____

Employee / Sub Contractor Name _____ Contact _____

Furthermore, the undersigned hereby request the cemetery to prepare a foundation for the memorial described below and sketched on the reverse side:

Foundation Size _____ Ft. _____ In. x _____ Ft. _____ In. x _____ Ft. _____ In.
Length Width Height

Memorial Dealer _____
Signed _____ Date _____

Permit Issued _____
Authorized Signature _____ Date _____

Memorial Dealer Employee / Sub Contractor _____
Signed _____ Date _____

Application to Install Memorial
January 8, 2018
Page 1 of 1

CITY OF WORCESTER
DEPARTMENT OF PUBLIC WORKS AND PARKS
Hope Cemetery Division 119A Webster Street Worcester, MA 01603

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Edward M. Augustus, Jr., City Manager

“Specifications and Requirements for Monuments and Markers”

Ownership:

Memorials (Monuments, Markers and Family Mausoleums) are the property of the license holder.

Location and Type of Memorial:

- Traditional monument, tablet monument and / or flush memorial shall be centered at the head of graves. Only one single memorial may be placed at head of each multiple grave lot.
- The Cemetery has the right to restrict individual sections of the cemetery to flush markers.

Materials:

Monuments shall be made of durable stone such as granite.

Markers shall be of bronze or durable stone such as granite.

Foundations:

The Cemetery shall install concrete foundations for monuments based on the approved dimensions on the “Application for Foundation, Monument or Marker”.

Design:

All designs for proposed memorials and markers must be submitted to the Cemetery office for approval prior to placement of said monument or marker using the “Application for Foundation, Monument or Marker”. The Cemetery Management shall reject any plan or design for any monument or marker, which, in the opinion of the Management is unsuitable because of design, inscription, material or size for the lot on which it is to be placed. If a monument / marker is considered unsatisfactory upon review, the Cemetery will notify the applicant of the reason(s) and allow resubmission for reconsideration. Dealers are responsible for contacting the cemetery office before commencing any monument/marker work.

Depending on the location of the graves within the cemetery, the Cemetery may restrict inscriptions to the front and not the reverse of monuments.

Specification and Requirements for Monuments and Memorials

January 8, 2018

Page 1 of 2

Sizes:

The sizes of the monuments or markers are governed according “Table of Monument or Marker Maximum Dimensions” below which is based on the width of the lots and number of side-by-side graves in a lot. If a flat marker is proposed as a memorial at the head of a multiple grave lot, its maximum dimensions shall be those listed for the length and width in the table below plus 6 inches to allow for any stone frame on bronze markers.

Table of Monument or Marker Maximum Dimensions.

Number of Graves (side by side)	Monument Base or Marker Length	Monument Base or Marker Width	Maximum Monument Height (die and base)	Height of Monument Base	Comments
1	2’-0”	1’-0”	2’-6”	6”-8”	Section 99 only
2-grave (companion)	3’-6”	1’-0”	3’-0”	6”-8”	
3 or more graves	No more than 4 feet less than total lot width.	1’-0”	3’-0”	6”-8”	

Markers:

Markers shall be flush to the ground except when it is necessary to match those already set in the lot. Foot markers on single graves are to be no larger than 24 inches in length and 12 inches in width on all single graves.

All stone foot markers shall have at least a 4” thickness. Longer markers used as memorials shall be thicker based on length as sized by the manufacturer. Bronze markers shall have a suitable concrete or granite base.

One single flat marker or a standard flat Veteran’s Marker may be placed at each foot of each grave. No other markers allowed on a grave.

Family Mausoleums:

Family Mausoleums shall be designed on a case by case basis working with the management in details of design, size, materials, color, number of crypts, security, and similar information.

Aggrieved:

Aggrievances may be made to the Management as specified in the Rules and Regulations.

CITY OF WORCESTER
DEPARTMENT OF PUBLIC WORKS AND PARKS
Hope Cemetery Division 119A Webster Street Worcester, MA 01603

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Edward M. Augustus Jr., City Manager

Hope Cemetery Complaint Form

PLEASE PRINT ON LINES BELOW;

NAME: _____ Date _____

ADDRESS: _____

Email: _____ Phone _____

NAME OF DECEASED: _____ Section _____ Lot/Grave _____

RELATIONSHIP: _____

COMPLAINT:

Office Use Only

DATE RECEIVED: _____

DATE RESPONDED: _____ Email _____

Telephone _____

Mail _____ In Person _____

Staff Appointed _____

Response:

Hope Cemetery Complaint Form

January 8, 2018

Page 1 of 1

**Master Plan Approved By
Hope Cemetery Commission
June 20, 2017**

**Master Plan Approved By
Worcester City Council
October 10, 2017**