

# MAUSOLEUM STABILIZATION AND RESTORATION



## MT. OLIVE CEMETERY

JACKSON, HINDS COUNTY, MISSISSIPPI

### PREPARED FOR:

Heather Denné, PhD  
Jackson State University  
1400 John R. Lynch Street  
Jackson, Mississippi 39217

February 2026

**RG A Project No. 2024-136MS**



RICHARD  
GRUBB &  
ASSOCIATES

**MT. OLIVE CEMETERY  
MAUSOLEUM STABILIZATION AND  
RESTORATION**

**Jackson State University  
Jackson, Hinds County, Mississippi**

**Prepared by:**

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**Prepared For:**

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Jackson, Mississippi 39217

**Date:**

February 24, 2026

**RGA Project No. 2024-136MS**



February 24, 2026

Dr. Heather Denné, PhD  
Director of Community Engagement  
Metro Jackson Community Prevention Coalition  
Jackson State University  
1400 John R. Lynch Street  
Jackson, Mississippi 39217

**Re: Post-Conservation Report – Mausoleums at Mt. Olive Cemetery**

Dear Dr. Denné:

Richard Grubb & Associates, Inc. (RGA) is pleased to submit the attached Post-Conservation Report documenting the completed conservation treatments by John Douglas Masonry of Jackson, Mississippi to the historic brick mausoleums at Mt. Olive Cemetery that from the 1920s to the 1940s. During the fall of 2026, RGA's team conserved 46 mausoleums. The conservation project was undertaken to fulfill the requirements of a National Park Service (NPS) Historically Black Colleges and Universities (HBCU) grant awarded to Jackson State University (JSU). This report presents the treatment protocols, as well as photographic documentation of conditions before and after conservation. RGA's inventory numbers in the attached report correspond with an earlier report titled Cemetery and Gravemarker Conditions Assessment, September 30, 2022 (revised February 21, 2023), prepared by RGA as part of a previous NPS HBCU grant made to JSU.

Mt. Olive Cemetery, located at 1400 John R. Lynch on the campus of JSU, is listed in the National Register of Historic Places and contains over 200 gravemarkers and mausoleums associated with individuals who contributed to the development of the African American community in Jackson. The cemetery, established at least as early as 1891, represents a significant cultural landscape on the JSU campus and an important reminder of African American life through the eras of Reconstruction, Jim Crow, and the Civil Rights Movement. The mausoleums addressed in this conservation phase are character-defining features of this historic property and contribute to its architectural, cultural, and commemorative significance.

Building upon RGA's prior Cemetery and Gravemarker Conditions Assessment and the subsequent remote sensing investigations, the present conservation work focused on stabilization, cleaning, repointing, reconstruction, leveling (where required), and parging of select brick mausoleums. All vegetation was carefully removed by hand; masonry surfaces were cleaned using water and D/2 Biological Solution; deteriorated mortar joints were raked and repointed with compatible mortar; and damaged bricks were replaced in kind to match the original in size, composition, texture, and color. Where structural movement was present, leveling procedures were implemented to ensure long-term stability. The attached report details these interventions and includes treatment protocols for each RGA inventory number, along with before-and-after photographic documentation.

RGA appreciates the opportunity to continue our collaboration with you and Jackson State University in the stewardship of Mt. Olive Cemetery. The NPS HBCU grant funding has enabled meaningful preservation of these significant mausoleums and advances JSU's ongoing commitment to protecting and interpreting this nationally recognized historic resource. We commend your leadership in advancing this work and remain available to assist with future phases of conservation, interpretation, and preservation planning at Mt. Olive Cemetery.

Sincerely,

A handwritten signature in cursive script, reading "Ellen Turco". The signature is written in black ink and includes a long, sweeping horizontal flourish at the end.

Ellen Turco  
Principal Senior Historian

## RGA Inventory #013m



### **Treatment Protocol**

#### *Cleaning*

Vegetation from brick surfaces, mortar joints, or parged areas were carefully removed by hand—extracted at the root—while avoiding damage to adjacent historic materials. All masonry surfaces including brick, mortar, and parging were cleaned with water and D/2 Biological Solution to address biological growth and general staining. Cleaning proceeded from the bottom of the mausoleum upward to prevent streaking, and all surfaces were thoroughly rinsed with clean water after dwell time, in accordance with manufacturer instructions. All brushes used during cleaning had nylon bristles. Efflorescence was removed with a stiff nylon brush and a clean water rinse.

#### *Reconstruction*

All deteriorated and damaged bricks and associated mortar were removed with care to avoid damaging adjacent masonry. The resulting cavity was cleaned with water and D/2 Biological Solution to remove biological growth and staining.

Replacement bricks matching the original in size, composition, texture, and color were used to reconstruct areas of loss, including those at the northwest and southeast corners of the mausoleum. The new pointing mortar was compatible with the original in composition, color, aggregate size, and tooling, and should be finished to match the appearance of existing mortar joints.

#### *Parging*

Delaminated parging was removed with hand tools such as plastic scrapers, stone and wood chisels, rubber and metal mallets, and whisk brooms to avoid damaging the underlying masonry. Missing and deteriorated areas were re-parged using a stucco mix that matches the existing in composition, color, and surface finish.

## RGA Inventory #016m



### **Treatment Protocol**

#### *Cleaning*

Vegetation from brick surfaces, mortar joints, and parged areas were carefully removed by hand—extracted at the root—while avoiding damage to adjacent historic materials. All masonry surfaces including brick, mortar, and parging were cleaned with water and D/2 Biological Solution to address biological growth and general staining. Cleaning proceeded from the bottom of the mausoleum upward to prevent streaking, and all surfaces were thoroughly rinsed with clean water after dwell time, in accordance with manufacturer instructions. All brushes used during cleaning had nylon bristles.

Efflorescence was removed with a stiff nylon brush and a clean water rinse.

#### *Reconstruction and Repointing*

Loose bricks from the upper courses were removed with care, and all residual mortar was cleaned from their surfaces. Salvaged bricks were stacked in a designated area adjacent to the mausoleum, where an assessment was made to determine whether a sufficient quantity of original bricks remained to facilitate an in-kind reconstruction. Replacement bricks matching the original in size, composition, texture, and color were used to reconstruct areas of loss. Upper brick courses were laid with new mortar that was compatible with the existing in composition, color, aggregate size, and tooling, and was finished to match the appearance of existing mortar joints.

#### *Parging*

Delaminated parging was removed with hand tools such as plastic scrapers, stone and wood chisels, rubber and metal mallets, and whisk brooms to avoid damaging the underlying masonry. Missing and deteriorated areas were re-parged using a stucco mix that matches the existing in composition, color, and surface finish.

## RGA Inventory #031m



### **Treatment Protocol**

#### *Cleaning*

All masonry surfaces were cleaned with water and D/2 Biological Solution to address biological growth and general staining. Cleaning proceeded from the base upward to prevent streaking, and all surfaces were thoroughly rinsed with clean water after the appropriate dwell time, in accordance with manufacturer instructions. All brushes used during cleaning had nylon bristles. Efflorescence present on the brick surface was removed using a stiff nylon brush and a clean water rinse.

#### *Repointing*

All deteriorated or damaged bricks were removed, and deteriorated mortar joints were carefully raked out using single-blade screwdrivers or small hand chisels. Mortar joints were raked to a depth of approximately 2 to 2½ times the width of the joint to ensure proper adhesion of new mortar. Replacement bricks that match the original in size, composition, texture, and color were used to reconstruct areas of loss. The new mortar is compatible with the original in composition, color, aggregate size, and tooling, and was finished to match the appearance of existing joints.

#### *Parging*

Delaminated parging was removed with hand tools such as plastic scrapers, stone and wood chisels, rubber and metal mallets, and whisk brooms to avoid damaging the underlying masonry. Missing and deteriorated areas were re-parged using a stucco mix that matches the existing in composition, color, and surface finish.

## RGA Inventory #036m



### **Treatment Protocol**

#### *Cleaning*

Vegetation growing from masonry surfaces was carefully removed by hand—extracted it at the root—while avoiding damage to adjacent historic materials. All weeds and shrubs growing at the mausoleum base were cut with hand pruning shears and loppers at grade. All masonry surfaces were cleaned with water and D/2 Biological Solution to address biological growth and general staining. Cleaning proceeded from the base upward to prevent streaking, and all surfaces were thoroughly rinsed with clean water after the appropriate dwell time, in accordance with manufacturer instructions. All brushes used during cleaning had nylon bristles. Efflorescence present on the brick surface was removed using a stiff nylon brush and a clean water rinse.

#### *Repointing*

All deteriorated or damaged bricks were removed, and deteriorated mortar joints were carefully raked out using single-blade screwdrivers or small hand chisels. Mortar joints were raked to a depth of approximately 2 to 2½ times the width of the joint to ensure proper adhesion of new mortar. Replacement bricks that match the original in size, composition, texture, and color were used to reconstruct areas of loss. The new mortar is compatible with the original in composition, color, aggregate size, and tooling, and was finished to match the appearance of existing joints.

#### *Parging*

Delaminated parging was removed with hand tools such as plastic scrapers, stone and wood chisels, rubber and metal mallets, and whisk brooms to avoid damaging the underlying masonry. Missing and deteriorated areas were re-parged using a stucco mix that matches the existing in composition, color, and surface finish.

## RGA Inventory #038m



### **Treatment Protocol**

#### *Cleaning*

All masonry surfaces including brick, mortar, parging, and the marble panel were cleaned with water and D/2 Biological Solution to address biological growth and general staining. Cleaning proceeded from the base upward to prevent streaking, and all surfaces were thoroughly rinsed with clean water after appropriate dwell time, in accordance with manufacturer instructions.

#### *Repointing*

All deteriorated mortar joints were carefully raked out using single-blade screwdrivers or small hand chisels. Mortar joints were raked to a depth of approximately 2 to 2½ times the width of the joint to ensure proper adhesion of new mortar. Replacement bricks that match the original in size, composition, texture, and color were used to reconstruct areas of loss. The new mortar is compatible with the original in composition, color, aggregate size, and tooling, and was finished to match the appearance of existing joints.

#### *Parging*

Delaminated parging was removed with hand tools such as plastic scrapers, stone and wood chisels, rubber and metal mallets, and whisk brooms to avoid damaging the underlying masonry. Missing and deteriorated areas were re-parged using a stucco mix that matches the existing in composition, color, and surface finish.

## RGA Inventory #039m



### **Treatment Protocol**

#### *Cleaning*

Vegetation growing from masonry surfaces was carefully removed by hand—extracted it at the root—while avoiding damage to adjacent historic materials. All weeds and shrubs growing at the mausoleum base should be cut with hand pruning shears or loppers at grade. All masonry surfaces including brick, mortar, parging, and the marble panel were cleaned with water and D/2 Biological Solution to address biological growth and general staining. Cleaning proceeded from the base upward to prevent streaking, and all surfaces were thoroughly rinsed with clean water after the appropriate dwell time, in accordance with manufacturer instructions. Efflorescence present on the brick surface was removed with a stiff nylon brush and a clean water rinse.

#### *Repointing*

All deteriorated or damaged bricks were removed and deteriorated mortar joints were carefully raked out using single-blade screwdrivers or small hand chisels. Mortar joints were raked to a depth of approximately 2 to 2½ times the width of the joint to ensure proper adhesion of new mortar. Replacement bricks that match the original in size, composition, texture, and color were used to reconstruct areas of loss. The new mortar was compatible with the original in composition, color, aggregate size, and tooling, and was finished to match the appearance of existing joints.

#### *Parging*

Delaminated parging was removed with hand tools such as plastic scrapers, stone and wood chisels, rubber and metal mallets, and whisk brooms to avoid damaging the underlying masonry. Missing or deteriorated areas were re-parged with a stucco mix that matches the existing in composition, color, and surface finish.

## RGA Inventory #049m



### **Treatment Protocol**

#### *Leveling*

A trench was excavated along the side of the structure that was leaning, extending down to the bottom course of brick. A second trench was dug beneath the bottom course to accommodate a two-foot concrete tie beam, under which jacks were positioned to lift the structure. The jacks rested on steel plates to prevent settling during elevation. As the mausoleum was gradually raised, solid foundation blocks were installed beneath the tie beam, and 10x6 steel shims were used in conjunction with the blocks to complete the leveling process. Once leveling was complete, the trenches were backfilled with crushed rock and sand, followed by the original topsoil removed during excavation and a layer of concrete at ground level to stabilize the area.

#### *Cleaning*

Vegetation growing from masonry surfaces was carefully removed by hand—extracting it at the root—while avoiding damage to adjacent historic materials. All weeds and shrubs growing at the mausoleum base were cut with hand pruning shears or loppers at grade. All masonry surfaces were cleaned with water and D/2 Biological Solution to address biological growth and general staining. Efflorescence present on the brick surface was removed with a stiff nylon brush and a clean water rinse.

#### *Repointing*

All deteriorated or damaged bricks were removed, and deteriorated mortar joints were carefully raked out using single-blade screwdrivers or small hand chisels. Mortar joints were raked to a depth of approximately 2 to 2½ times the width of the joint to ensure proper adhesion of new mortar. Replacement bricks that match the original in size, composition, texture, and color were used to reconstruct areas of loss. New mortar is compatible with the original in composition, color, aggregate size, and tooling, and were finished to match the appearance of existing joints.

#### *Parging*

Delaminated parging was removed with hand tools such as plastic scrapers, stone and wood chisels, rubber and metal mallets, and whisk brooms to avoid damaging the underlying masonry. Missing or deteriorated areas were re-parged with a stucco mix that matches the existing in composition, color, and surface finish.

## RGA Inventory #051m



### **Treatment Protocol**

#### *Cleaning*

Vegetation growing from masonry surfaces was carefully removed by hand—extracting it at the root—while avoiding damage to adjacent historic materials. All weeds and shrubs growing at the mausoleum base were cut with hand pruning shears or loppers at grade. All masonry surfaces were cleaned with water and D/2 Biological Solution to address biological growth and general staining. Efflorescence present on the brick surface was removed with a stiff nylon brush and a clean water rinse.

#### *Repointing*

All deteriorated or damaged bricks were removed, and deteriorated mortar joints were carefully raked out using single-blade screwdrivers or small hand chisels. Mortar joints were raked to a depth of approximately 2 to 2½ times the width of the joint to ensure proper adhesion of new mortar. Replacement bricks that match the original in size, composition, texture, and color were used to reconstruct areas of loss. New mortar is compatible with the original in composition, color, aggregate size, and tooling, and were finished to match the appearance of existing joints.

## RGA Inventory #056m



### **Treatment Protocol**

#### *Cleaning*

Vegetation growing from masonry surfaces was carefully removed by hand—extracting it at the root—while avoiding damage to adjacent historic materials. All weeds and shrubs growing at the mausoleum base were cut with hand pruning shears or loppers at grade. All masonry surfaces including brick, mortar, and the marble panel were cleaned with water and D/2 Biological Solution to address biological growth and general staining. Cleaning proceeded from the base upward to prevent streaking and all surfaces were thoroughly rinsed with clean water after the appropriate dwell time, in accordance with manufacturer instructions. Efflorescence present on the brick surface was removed with a stiff nylon brush and a clean water rinse.

#### *Repair*

The collapsed concrete slab inside the structure was carefully removed for evaluation. The slab was not able to be repaired, so a new concrete slab of the exact same dimensions, profile, and surface finish was poured on a wooden frame on top of the mausoleum.

#### *Repointing*

All deteriorated or damaged bricks were removed, and deteriorated mortar joints were carefully raked out using single-blade screwdrivers or small hand chisels. Mortar joints were raked to a depth of approximately 2 to 2½ times the width of the joint to ensure proper adhesion of new mortar. Replacement bricks that match the original in size, composition, texture, and color were used to reconstruct areas of loss. New mortar is compatible with the original in composition, color, aggregate size, and tooling, and were finished to match the appearance of existing joints.

RGA Inventory #068m



**Treatment Protocol**

*Repair*

The collapsed concrete slab inside the structure was carefully removed for evaluation. The slab was not able to be repaired, so a new concrete slab of the exact same dimensions and profile was poured on a wooden frame on top of the grave.



## **Treatment Protocol**

### *Cleaning*

Vegetation growing from masonry surfaces was carefully removed by hand—extracting it at the root—while avoiding damage to adjacent historic materials. All weeds and shrubs growing at the mausoleum base were cut with hand pruning shears or loppers at grade. All masonry surfaces should be cleaned with D/2 Biological Solution to address biological growth and general staining. Efflorescence present on the brick surface was removed with a stiff nylon brush and a clean water rinse.

### *Repointing*

All deteriorated or damaged bricks were removed, and deteriorated mortar joints were carefully raked out using single-blade screwdrivers or small hand chisels. Mortar joints were raked to a depth of approximately 2 to 2½ times the width of the joint to ensure proper adhesion of new mortar. Replacement bricks that match the original in size, composition, texture, and color were used to reconstruct areas of loss. New mortar is compatible with the original in composition, color, aggregate size, and tooling, and were finished to match the appearance of existing joints.

### *Parging*

Delaminated parging was removed using hand tools such as plastic scrapers, stone and wood chisels, rubber and metal mallets, and whisk brooms to avoid damaging the underlying masonry. Missing or deteriorated areas were re-parged using a stucco mix that matches the existing in composition, color, and surface finish.

## RGA Inventory #072m



### **Treatment Protocol**

#### *Cleaning*

Vegetation growing from masonry surfaces was carefully removed by hand—extracting it at the root—while avoiding damage to adjacent historic materials. All weeds and shrubs growing at the mausoleum base were cut with hand pruning shears or loppers at grade. All masonry surfaces including brick, mortar, and parging were cleaned with water and D/2 Biological Solution to address biological growth and general staining. Cleaning proceeded from the base upward to prevent streaking, and all surfaces were thoroughly rinsed with clean water after the appropriate dwell time, in accordance with manufacturer instructions. Efflorescence present on the brick surface was removed with a stiff nylon brush and a clean water rinse.

#### *Repointing*

All deteriorated or damaged bricks were removed, and deteriorated mortar joints were carefully raked out using single-blade screwdrivers or small hand chisels. Mortar joints were raked to a depth of approximately 2 to 2½ times the width of the joint to ensure proper adhesion of new mortar. Replacement bricks that match the original in size, composition, texture, and color were used to reconstruct areas of loss. New mortar is compatible with the original in composition, color, aggregate size, and tooling, and were finished to match the appearance of existing joints.

#### *Parging*

Delaminated parging was removed using hand tools such as plastic scrapers, stone and wood chisels, rubber and metal mallets, and whisk brooms to avoid damaging the underlying masonry. Missing or deteriorated areas were re-parged using a stucco mix that matches the existing in composition, color, and surface finish.

## RGA Inventory #081m



### **Treatment Protocol**

#### *Cleaning*

Vegetation growing from masonry surfaces was carefully removed by hand—extracting it at the root—while avoiding damage to adjacent historic materials. All weeds and shrubs growing at the mausoleum base were cut with hand pruning shears or loppers at grade. All masonry surfaces including brick, mortar, and parging were cleaned with water and D/2 Biological Solution to address biological growth and general staining. Cleaning proceeded from the base upward to prevent streaking, and all surfaces were thoroughly rinsed with clean water after the appropriate dwell time, in accordance with manufacturer instructions. Efflorescence present on the brick surface was removed with a stiff nylon brush and a clean water rinse.

#### *Repointing*

All deteriorated or damaged bricks were removed, and deteriorated mortar joints were carefully raked out using single-blade screwdrivers or small hand chisels. Mortar joints were raked to a depth of approximately 2 to 2½ times the width of the joint to ensure proper adhesion of new mortar. Replacement bricks that match the original in size, composition, texture, and color were used to reconstruct areas of loss. New mortar is compatible with the original in composition, color, aggregate size, and tooling, and were finished to match the appearance of existing joints.

## RGA Inventory #084m



### **Treatment Protocol**

#### *Cleaning*

Vegetation growing from masonry surfaces was carefully removed by hand—extracting it at the root—while avoiding damage to adjacent historic materials. All weeds and shrubs growing at the mausoleum base were cut with hand pruning shears or loppers at grade. All masonry surfaces including brick, mortar, and parging were cleaned with water and D/2 Biological Solution to address biological growth and general staining. Cleaning proceeded from the base upward to prevent streaking, and all surfaces were thoroughly rinsed with clean water after the appropriate dwell time, in accordance with manufacturer instructions. Efflorescence present on the brick surface was removed with a stiff nylon brush and a clean water rinse.

#### *Repointing*

All deteriorated or damaged bricks were removed, and deteriorated mortar joints were carefully raked out using single-blade screwdrivers or small hand chisels. Mortar joints were raked to a depth of approximately 2 to 2½ times the width of the joint to ensure proper adhesion of new mortar. Replacement bricks that match the original in size, composition, texture, and color were used to reconstruct areas of loss. New mortar is compatible with the original in composition, color, aggregate size, and tooling, and were finished to match the appearance of existing joints.

#### *Parging*

Delaminated parging was removed using hand tools such as plastic scrapers, stone and wood chisels, rubber and metal mallets, and whisk brooms to avoid damaging the underlying masonry. Missing or deteriorated areas were re-parged using a stucco mix that matches the existing in composition, color, and surface finish.

## RGA Inventory #095m



### **Treatment Protocol**

#### *Cleaning*

Vegetation growing from masonry surfaces was carefully removed by hand—extracting it at the root—while avoiding damage to adjacent historic materials. All weeds and shrubs growing at the mausoleum base were cut with hand pruning shears or loppers at grade. All masonry surfaces including brick, mortar, and parging were cleaned with water and D/2 Biological Solution to address biological growth and general staining. Cleaning proceeded from the base upward to prevent streaking, and all surfaces were thoroughly rinsed with clean water after the appropriate dwell time, in accordance with manufacturer instructions. Efflorescence present on the brick surface was removed with a stiff nylon brush and a clean water rinse.

#### *Repointing*

All deteriorated or damaged bricks were removed, and deteriorated mortar joints were carefully raked out using single-blade screwdrivers or small hand chisels. Mortar joints were raked to a depth of approximately 2 to 2½ times the width of the joint to ensure proper adhesion of new mortar. Replacement bricks that match the original in size, composition, texture, and color were used to reconstruct areas of loss. New mortar is compatible with the original in composition, color, aggregate size, and tooling, and were finished to match the appearance of existing joints.

#### *Parging*

Delaminated parging was removed using hand tools such as plastic scrapers, stone and wood chisels, rubber and metal mallets, and whisk brooms to avoid damaging the underlying masonry. Missing or deteriorated areas were re-parged using a stucco mix that matches the existing in composition, color, and surface finish.

## RGA Inventory #096m



### **Treatment Protocol**

#### *Cleaning*

Vegetation growing from masonry surfaces was carefully removed by hand—extracting it at the root—while avoiding damage to adjacent historic materials. All weeds and shrubs growing at the mausoleum’s base were cut with hand pruning shears and loppers at grade. All masonry surfaces—including brick, mortar, parging, and the marble panel—were cleaned with water and D/2 Biological Solution to address biological growth and general staining. Cleaning proceeded from the base upward to prevent streaking, and all surfaces were thoroughly rinsed with clean water after the appropriate dwell time, in accordance with manufacturer instructions. Efflorescence was removed using a stiff nylon brush and a clean water rinse.

#### *Repointing*

All deteriorated or damaged bricks were removed, and deteriorated mortar joints were carefully raked out using single-blade screwdrivers or small hand chisels. Mortar joints were raked to a depth of approximately 2 to 2½ times the width of the joint to ensure proper adhesion of new mortar. Replacement bricks that match the original in size, composition, texture, and color were used to reconstruct areas of loss. New mortar is compatible with the original in composition, color, aggregate size, and tooling, and were finished to match the appearance of existing joints.

#### *Parging*

Deteriorated and delaminated parging was removed using hand tools such as plastic scrapers, stone and wood chisels, rubber and metal mallets, and whisk brooms to avoid damaging the underlying masonry. Missing or deteriorated areas were re-parged using a stucco mix that matches the existing in composition, color, and surface finish.

## RGA Inventory #112m



### Treatment Protocol

#### *Cleaning*

All masonry surfaces including brick, mortar, and parging were cleaned with water and D/2 Biological Solution to address biological growth and general staining. Cleaning proceeded from the base upward to prevent streaking, and all surfaces were thoroughly rinsed with clean water after the appropriate dwell time, in accordance with manufacturer instructions. Efflorescence present on the brick surface was removed with a stiff nylon brush and a clean water rinse.

#### *Repointing*

All deteriorated or damaged bricks were removed, and deteriorated mortar joints were carefully raked out using single-blade screwdrivers or small hand chisels. Mortar joints were raked to a depth of approximately 2 to 2½ times the width of the joint to ensure proper adhesion of new mortar. Replacement bricks that match the original in size, composition, texture, and color were used to reconstruct areas of loss. New mortar is compatible with the original in composition, color, aggregate size, and tooling, and were finished to match the appearance of existing joints.

#### *Parging*

Delaminated parging was removed using hand tools such as plastic scrapers, stone and wood chisels, rubber and metal mallets, and whisk brooms to avoid damaging the underlying masonry. Missing or deteriorated areas were re-parged using a stucco mix that matches the existing in composition, color, and surface finish.

## RGA Inventory #123m



### **Treatment Protocol**

#### *Cleaning*

Vegetation growing from masonry surfaces was carefully removed by hand—extracting it at the root—while avoiding damage to adjacent historic materials. All weeds and shrubs growing at the mausoleum base were cut with hand pruning shears or loppers at grade. All masonry surfaces including brick, mortar, and parging were cleaned with water and D/2 Biological Solution to address biological growth and general staining. Cleaning proceeded from the base upward to prevent streaking, and all surfaces were thoroughly rinsed with clean water after the appropriate dwell time, in accordance with manufacturer instructions.

#### *Repointing*

All deteriorated or damaged bricks were removed, and deteriorated mortar joints were carefully raked out using single-blade screwdrivers or small hand chisels. Mortar joints were raked to a depth of approximately 2 to 2½ times the width of the joint to ensure proper adhesion of new mortar. Replacement bricks that match the original in size, composition, texture, and color were used to reconstruct areas of loss. New mortar is compatible with the original in composition, color, aggregate size, and tooling, and were finished to match the appearance of existing joints.

#### *Parging*

Delaminated parging was removed using hand tools such as plastic scrapers, stone and wood chisels, rubber and metal mallets, and whisk brooms to avoid damaging the underlying masonry. Missing or deteriorated areas were re-parged using a stucco mix that matches the existing in composition, color, and surface finish.

## RGA Inventory #135m



### **Treatment Protocol**

#### *Cleaning*

Vegetation growing from masonry surfaces was carefully removed by hand—extracting it at the root—while avoiding damage to adjacent historic materials. All weeds and shrubs growing at the mausoleum base were cut with hand pruning shears or loppers at grade. All masonry surfaces including brick, mortar, and parging were cleaned with water and D/2 Biological Solution to address biological growth and general staining. Cleaning proceeded from the base upward to prevent streaking, and all surfaces were thoroughly rinsed with clean water after the appropriate dwell time, in accordance with manufacturer instructions. Efflorescence present on the brick surface was removed with a stiff nylon brush and a clean water rinse.

#### *Repointing*

All deteriorated or damaged bricks were removed, and deteriorated mortar joints were carefully raked out using single-blade screwdrivers or small hand chisels. Mortar joints were raked to a depth of approximately 2 to 2½ times the width of the joint to ensure proper adhesion of new mortar. Replacement bricks that match the original in size, composition, texture, and color were used to reconstruct areas of loss. New mortar is compatible with the original in composition, color, aggregate size, and tooling, and were finished to match the appearance of existing joints.

## RGA Inventory #136m



### **Treatment Protocol**

#### *Cleaning*

Vegetation growing from masonry surfaces was carefully removed by hand—extracting it at the root—while avoiding damage to adjacent historic materials. All weeds and shrubs growing at the mausoleum base were cut with hand pruning shears or loppers at grade. All masonry surfaces including brick, mortar, and parging were cleaned with water and D/2 Biological Solution to address biological growth and general staining. Cleaning proceeded from the base upward to prevent streaking, and all surfaces were thoroughly rinsed with clean water after the appropriate dwell time, in accordance with manufacturer instructions. Efflorescence present on the brick surface was removed with a stiff nylon brush and a clean water rinse.

#### *Repointing*

All deteriorated or damaged bricks were removed, and deteriorated mortar joints were carefully raked out using single-blade screwdrivers or small hand chisels. Mortar joints were raked to a depth of approximately 2 to 2½ times the width of the joint to ensure proper adhesion of new mortar. Replacement bricks that match the original in size, composition, texture, and color were used to reconstruct areas of loss. New mortar is compatible with the original in composition, color, aggregate size, and tooling, and were finished to match the appearance of existing joints.

#### *Parging*

Delaminated parging was removed using hand tools such as plastic scrapers, stone and wood chisels, rubber and metal mallets, and whisk brooms to avoid damaging the underlying masonry. Missing or deteriorated areas were re-parged using a stucco mix that matches the existing in composition, color, and surface finish.

## RGA Inventory #138m



### **Treatment Protocol**

#### *Cleaning*

Vegetation growing from masonry surfaces was carefully removed by hand—extracting it at the root—while avoiding damage to adjacent historic materials. All weeds and shrubs growing at the mausoleum base were cut with hand pruning shears or loppers at grade. All masonry surfaces including brick, mortar, and parging were cleaned with water and D/2 Biological Solution to address biological growth and general staining. Cleaning proceeded from the base upward to prevent streaking, and all surfaces were thoroughly rinsed with clean water after the appropriate dwell time, in accordance with manufacturer instructions. Efflorescence present on the brick surface was removed with a stiff nylon brush and a clean water rinse.

#### *Repointing*

All deteriorated or damaged bricks were removed, and deteriorated mortar joints were carefully raked out using single-blade screwdrivers or small hand chisels. Mortar joints were raked to a depth of approximately 2 to 2½ times the width of the joint to ensure proper adhesion of new mortar. Replacement bricks that match the original in size, composition, texture, and color were used to reconstruct areas of loss. New mortar is compatible with the original in composition, color, aggregate size, and tooling, and were finished to match the appearance of existing joints.

#### *Parging*

Delaminated parging was removed using hand tools such as plastic scrapers, stone and wood chisels, rubber and metal mallets, and whisk brooms to avoid damaging the underlying masonry. Missing or deteriorated areas were re-parged using a stucco mix that matches the existing in composition, color, and surface finish.

## RGA Inventory #149m



### **Treatment Protocol**

#### *Cleaning*

Vegetation growing from masonry surfaces was carefully removed by hand—extracting it at the root—while avoiding damage to adjacent historic materials. All weeds and shrubs growing at the mausoleum base were cut with hand pruning shears or loppers at grade. All masonry surfaces including brick, mortar, and parging were cleaned with water and D/2 Biological Solution to address biological growth and general staining. Cleaning proceeded from the base upward to prevent streaking, and all surfaces were thoroughly rinsed with clean water after the appropriate dwell time, in accordance with manufacturer instructions. Efflorescence present on the brick surface was removed with a stiff nylon brush and a clean water rinse.

#### *Repointing*

All deteriorated or damaged bricks were removed, and deteriorated mortar joints were carefully raked out using single-blade screwdrivers or small hand chisels. Mortar joints were raked to a depth of approximately 2 to 2½ times the width of the joint to ensure proper adhesion of new mortar. Replacement bricks that match the original in size, composition, texture, and color were used to reconstruct areas of loss. New mortar is compatible with the original in composition, color, aggregate size, and tooling, and were finished to match the appearance of existing joints.

#### *Parging*

Delaminated parging was removed using hand tools such as plastic scrapers, stone and wood chisels, rubber and metal mallets, and whisk brooms to avoid damaging the underlying masonry. Missing or deteriorated areas were re-parged using a stucco mix that matches the existing in composition, color, and surface finish.

## RGA Inventory #150m



### **Treatment Protocol**

#### *Cleaning*

Vegetation growing from masonry surfaces was carefully removed by hand—extracting it at the root—while avoiding damage to adjacent historic materials. All weeds and shrubs growing at the mausoleum base were cut with hand pruning shears or loppers at grade. All masonry surfaces including brick, mortar, and parging were cleaned with water and D/2 Biological Solution to address biological growth and general staining. Cleaning proceeded from the base upward to prevent streaking, and all surfaces were thoroughly rinsed with clean water after the appropriate dwell time, in accordance with manufacturer instructions. Efflorescence present on the brick surface was removed with a stiff nylon brush and a clean water rinse.

#### *Repointing*

All deteriorated or damaged bricks were removed, and deteriorated mortar joints were carefully raked out using single-blade screwdrivers or small hand chisels. Mortar joints were raked to a depth of approximately 2 to 2½ times the width of the joint to ensure proper adhesion of new mortar. Replacement bricks that match the original in size, composition, texture, and color were used to reconstruct areas of loss. New mortar is compatible with the original in composition, color, aggregate size, and tooling, and were finished to match the appearance of existing joints.

#### *Parging*

Delaminated parging was removed using hand tools such as plastic scrapers, stone and wood chisels, rubber and metal mallets, and whisk brooms to avoid damaging the underlying masonry. Missing or deteriorated areas were re-parged using a stucco mix that matches the existing in composition, color, and surface finish.

## RGA Inventory #151m



### **Treatment Protocol**

#### *Cleaning*

Vegetation growing from masonry surfaces was carefully removed by hand—extracting it at the root—while avoiding damage to adjacent historic materials. All weeds and shrubs growing at the mausoleum base were cut with hand pruning shears or loppers at grade. All masonry surfaces including brick, mortar, and parging were cleaned with water and D/2 Biological Solution to address biological growth and general staining. Cleaning proceeded from the base upward to prevent streaking, and all surfaces were thoroughly rinsed with clean water after the appropriate dwell time, in accordance with manufacturer instructions. Efflorescence present on the brick surface was removed with a stiff nylon brush and a clean water rinse.

#### *Repointing*

All deteriorated or damaged bricks were removed, and deteriorated mortar joints were carefully raked out using single-blade screwdrivers or small hand chisels. Mortar joints were raked to a depth of approximately 2 to 2½ times the width of the joint to ensure proper adhesion of new mortar. Replacement bricks that match the original in size, composition, texture, and color were used to reconstruct areas of loss. New mortar is compatible with the original in composition, color, aggregate size, and tooling, and were finished to match the appearance of existing joints.

#### *Parging*

Delaminated parging was removed using hand tools such as plastic scrapers, stone and wood chisels, rubber and metal mallets, and whisk brooms to avoid damaging the underlying masonry. Missing or deteriorated areas were re-parged using a stucco mix that matches the existing in composition, color, and surface finish.

## RGA Inventory #152m



### **Treatment Protocol**

Vegetation growing from masonry surfaces was carefully removed by hand—extracting it at the root—while avoiding damage to adjacent historic materials. All weeds and shrubs growing at the mausoleum base were cut with hand pruning shears or loppers at grade. All masonry surfaces including brick, mortar, and parging were cleaned with water and D/2 Biological Solution to address biological growth and general staining. Cleaning proceeded from the base upward to prevent streaking, and all surfaces were thoroughly rinsed with clean water after the appropriate dwell time, in accordance with manufacturer instructions. Efflorescence present on the brick surface was removed with a stiff nylon brush and a clean water rinse.

### *Reconstruction*

Replacement bricks to the damaged end of the mausoleum matched the original in size, composition, texture, and color were used to reconstruct areas of loss. Brick courses were laid with new mortar that was compatible with the existing in composition, color, aggregate size, and tooling, and was finished to match the appearance of existing mortar joints. Missing and deteriorated areas of parging were re-parged with a stucco that matched the existing in composition, color, and surface finish.

### *Parging*

Delaminated parging was removed using hand tools such as plastic scrapers, stone and wood chisels, rubber and metal mallets, and whisk brooms to avoid damaging the underlying masonry. Missing or deteriorated areas were re-parged using a stucco mix that matches the existing in composition, color, and surface finish.

## RGA Inventory #153m



### **Treatment Protocol**

#### *Leveling*

A trench was excavated along the side of the structure that was leaning, extending down to the bottom course of brick. A second trench was dug beneath the bottom course to accommodate a two-foot concrete tie beam, under which jacks were positioned to lift the structure. The jacks rested on steel plates to prevent settling during elevation. As the mausoleum was gradually raised, solid foundation blocks were installed beneath the tie beam, and 10x6 steel shims were used in conjunction with the blocks to complete the leveling process. Once leveling was complete, the trenches were backfilled with crushed rock and sand, followed by the original topsoil removed during excavation.

#### *Cleaning*

Vegetation growing from masonry surfaces was carefully removed by hand—extracting it at the root—while avoiding damage to adjacent historic materials. All weeds and shrubs growing at the mausoleum base were cut with hand pruning shears or loppers at grade. All masonry surfaces including brick, mortar, and parging were cleaned with water and D/2 Biological Solution to address biological growth and general staining. Cleaning proceeded from the base upward to prevent streaking, and all surfaces were thoroughly rinsed with clean water after the appropriate dwell time, in accordance with manufacturer instructions. Efflorescence present on the brick surface was removed with a stiff nylon brush and a clean water rinse.

#### *Parging*

Delaminated parging was removed using hand tools such as plastic scrapers, stone and wood chisels, rubber and metal mallets, and whisk brooms to avoid damaging the underlying masonry. Missing or deteriorated areas were re-parged using a stucco mix that matches the existing in composition, color, and surface finish.

## RGA Inventory #158m



### **Treatment Protocol**

#### *Cleaning*

Vegetation growing from masonry surfaces was carefully removed by hand—extracting it at the root—while avoiding damage to adjacent historic materials. All weeds and shrubs growing at the mausoleum base were cut with hand pruning shears or loppers at grade. All masonry surfaces including brick, mortar, and parging were cleaned with water and D/2 Biological Solution to address biological growth and general staining. Cleaning proceeded from the base upward to prevent streaking, and all surfaces were thoroughly rinsed with clean water after the appropriate dwell time, in accordance with manufacturer instructions. Efflorescence present on the brick surface was removed with a stiff nylon brush and a clean water rinse.

#### *Repointing*

All deteriorated or damaged bricks were removed, and deteriorated mortar joints were carefully raked out using single-blade screwdrivers or small hand chisels. Mortar joints were raked to a depth of approximately 2 to 2½ times the width of the joint to ensure proper adhesion of new mortar. Replacement bricks that match the original in size, composition, texture, and color were used to reconstruct areas of loss. New mortar is compatible with the original in composition, color, aggregate size, and tooling, and were finished to match the appearance of existing joints.

#### *Parging*

Delaminated parging was removed using hand tools such as plastic scrapers, stone and wood chisels, rubber and metal mallets, and whisk brooms to avoid damaging the underlying masonry. Missing or deteriorated areas were re-parged using a stucco mix that matches the existing in composition, color, and surface finish.

## RGA Inventory #170m



### **Treatment Protocol**

#### *Cleaning*

The large concrete slab was removed from the top of the mausoleum and the cinder block walls were disassembled. All masonry surfaces including cinder blocks, mortar, and parging were cleaned with water and D/2 Biological Solution to address biological growth and general staining. Cleaning proceeded from the base upward to prevent streaking, and all surfaces were thoroughly rinsed with clean water after the appropriate dwell time, in accordance with manufacturer instructions.

#### *Reconstruction*

Replacement cinder blocks for the missing area of the mausoleum matched the original in size, composition, texture, and color were used to reconstruct areas of loss. Cinder blocks were laid with new mortar that was compatible with the existing in composition, color, aggregate size, and tooling, and was finished matching the appearance of existing mortar joints. Missing and deteriorated areas of parging were re-parged with a stucco that matched the existing in composition, color, and surface finish.

The large concrete slab was reset on top of the mausoleum once it was completed.

## RGA Inventory #171m



### **Treatment Protocol**

#### *Cleaning*

Vegetation growing from masonry surfaces was carefully removed by hand—extracting it at the root—while avoiding damage to adjacent historic materials. All weeds and shrubs growing at the mausoleum base were cut with hand pruning shears or loppers at grade. All masonry surfaces including brick, mortar, and parging were cleaned with water and D/2 Biological Solution to address biological growth and general staining. Cleaning proceeded from the base upward to prevent streaking, and all surfaces were thoroughly rinsed with clean water after the appropriate dwell time, in accordance with manufacturer instructions. Efflorescence present on the brick surface was removed with a stiff nylon brush and a clean water rinse.

#### *Repointing*

All deteriorated or damaged bricks were removed, and deteriorated mortar joints were carefully raked out using single-blade screwdrivers or small hand chisels. Mortar joints were raked to a depth of approximately 2 to 2½ times the width of the joint to ensure proper adhesion of new mortar. Replacement bricks that match the original in size, composition, texture, and color were used to reconstruct areas of loss. New mortar is compatible with the original in composition, color, aggregate size, and tooling, and were finished to match the appearance of existing joints.

#### *Parging*

Delaminated parging was removed using hand tools such as plastic scrapers, stone and wood chisels, rubber and metal mallets, and whisk brooms to avoid damaging the underlying masonry. Missing or deteriorated areas were re-parged using a stucco mix that matches the existing in composition, color, and surface finish.

## RGA Inventory #197m



### **Treatment Protocol**

#### *Reconstruction*

Removed the parged upper course of brick from the top of the mausoleum and disassembled the brick walls. Cleaned and stacked the salvageable bricks. Removed residual mortar from the salvageable bricks. Once all the bricks were removed, a trench between 20 and 24 inches wide by 18 inches deep was dug. Two layers of #5 rebar were set and concrete poured. Once the concrete was dry and set, the mausoleum was reset using the salvaged bricks. Replacement bricks matched the original in size, composition, texture, and color were used to reconstruct areas of loss. Brick courses were laid with new mortar that was compatible with the existing in composition, color, aggregate size, and tooling, and was finished to match the appearance of existing mortar joints. Missing and deteriorated areas of parging were re-parged with a stucco that matched the existing in composition, color, and surface finish.

#### *Cleaning*

All masonry surfaces including brick, mortar, and parging were cleaned with water and D/2 Biological Solution to address biological growth and general staining. Cleaning proceeded from the base upward to prevent streaking, and all surfaces were thoroughly rinsed with clean water after the appropriate dwell time, in accordance with manufacturer instructions. Efflorescence present on the brick surface was removed with a stiff nylon brush and a clean water rinse.

#### *Parging*

The top course of bricks were re-parged using a stucco mix that matches the existing in composition, color, and surface finish.

## RGA Inventory #200m



### **Treatment Protocol**

#### *Leveling*

A trench was excavated along the side of the structure that was leaning, extending down to the bottom course of brick. A second trench was dug beneath the bottom course to accommodate a two-foot concrete tie beam, under which jacks were positioned to lift the structure. The jacks rested on steel plates to prevent settling during elevation. As the mausoleum was gradually raised, solid foundation blocks were installed beneath the tie beam, and 10x6 steel shims were used in conjunction with the blocks to complete the leveling process. Once leveling was complete, the trenches were backfilled with crushed rock and sand, followed by the original topsoil removed during excavation. All materials were properly tamped.

#### *Cleaning*

Vegetation growing from masonry surfaces was carefully removed by hand—extracting it at the root—while avoiding damage to adjacent historic materials. All weeds and shrubs growing at the mausoleum base were cut with hand pruning shears or loppers at grade. All masonry surfaces including brick, mortar, and parging were cleaned with water and D/2 Biological Solution to address biological growth and general staining. Cleaning proceeded from the base upward to prevent streaking, and all surfaces were thoroughly rinsed with clean water after the appropriate dwell time, in accordance with manufacturer instructions. Efflorescence present on the brick surface was removed with a stiff nylon brush and a clean water rinse.

#### *Repointing*

All deteriorated or damaged bricks were removed, and deteriorated mortar joints were carefully raked out using single-blade screwdrivers or small hand chisels. Mortar joints were raked to a depth of approximately 2 to 2½ times the width of the joint to ensure proper adhesion of new mortar. Replacement bricks that match the original in size, composition, texture, and color were used to reconstruct areas of loss. New mortar is compatible with the original in composition, color, aggregate size, and tooling, and were finished to match the appearance of existing joints.

#### *Parging*

Delaminated parging was removed using hand tools such as plastic scrapers, stone and wood chisels, rubber and metal mallets, and whisk brooms to avoid damaging the underlying masonry. Missing or deteriorated areas were re-parged using a stucco mix that matches the existing in composition, color, and surface finish.

## RGA Inventory #222m



### **Treatment Protocol**

#### *Cleaning*

Vegetation growing from masonry surfaces was carefully removed by hand—extracting it at the root—while avoiding damage to adjacent historic materials. All weeds and shrubs growing at the mausoleum base were cut with hand pruning shears or loppers at grade. All masonry surfaces including brick, mortar, and parging were cleaned with water and D/2 Biological Solution to address biological growth and general staining. Cleaning proceeded from the base upward to prevent streaking, and all surfaces were thoroughly rinsed with clean water after the appropriate dwell time, in accordance with manufacturer instructions. Efflorescence present on the brick surface was removed with a stiff nylon brush and a clean water rinse.

#### *Repointing*

All deteriorated or damaged bricks were removed, and deteriorated mortar joints were carefully raked out using single-blade screwdrivers or small hand chisels. Mortar joints were raked to a depth of approximately 2 to 2½ times the width of the joint to ensure proper adhesion of new mortar. Replacement bricks that match the original in size, composition, texture, and color were used to reconstruct areas of loss. New mortar is compatible with the original in composition, color, aggregate size, and tooling, and were finished to match the appearance of existing joints.

#### *Parging*

Delaminated parging was removed using hand tools such as plastic scrapers, stone and wood chisels, rubber and metal mallets, and whisk brooms to avoid damaging the underlying masonry. Missing or deteriorated areas were re-parged using a stucco mix that matches the existing in composition, color, and surface finish.

