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Capital Improvement Plan and Master Landscape Plan,  
2012

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**ARMED FORCES RETIREMENT HOME**  
**3700 NORTH CAPITOL STREET, N.W.**  
**P.O. Box 580**  
**WASHINGTON, D.C. 20011**

18 MAR 2016

Re: Freedom of Information Act Request: #16-6

This letter is in response to your Freedom of Information Act (FOIA) request received 22 February 2016, in which you requested the AFRH-W Master Plan, the Capital Improvement Plan and the Campus Landscape Plan.

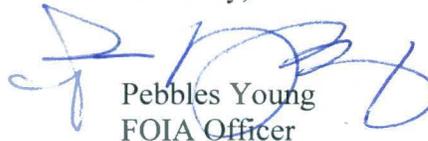
The AFRH-W Master Plan can be accessed at <http://www.afrhdevelopment.com/resources.html>

The Capital Improvement Plan and the Campus Landscape Plans are too large and cannot be emailed. Note that the Master Landscape Plan has yet to be approved by the NCPC so it's only used as a guideline. Please find the Capital Improvement Plan and the Campus Landscape Plan on the CD enclosed.

We have responsive records to satisfy your request. You are granted full access to those records, and a CD is enclosed. The cost to process your request is less than \$20.00; therefore, the fee is waived.

Your request is now completed. If you have any questions, you may contact me at 202-541-7554 or by email at [afrh.foia@afrh.gov](mailto:afrh.foia@afrh.gov).

Sincerely,



Pebbles Young  
FOIA Officer



*Inspiring*  
**INDEPENDENCE**



**VOLUME I:**  
**The AFRH Capital Improvement Plan**  
**FY2011-21**  
**(FY2012 Update)**

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## THE AFRH PURPOSE

### VISION

A retirement community committed to excellence, fostering independence, vitality and wellness for veterans, making it a vibrant place in which to live, work and thrive.

### MISSION

To fulfill our nation's commitment to its veterans by providing a premier retirement community with exceptional residential care and extensive support services.

### GUIDING PRINCIPLES

- *Accountability*
- *Honor heritage*
- *Integrity*
- *Inspire excellence*
- *One vision / one mission / one organization*
- *Person-centered*
- *Workforce growth*



## **PERSON-CENTERED CARE**



### **CORE PHILOSOPHY**

“Person-centered Care” is defined as the careful manner in which Resident needs are considered while developing proactive plans of care and delivering meaningful services.

This concept recognizes that the AFRH Residents are active participants in guiding and charting their own lives. In order for Person-centered Care to be effective, everyone must identify and understand each Resident’s individual needs, listen carefully to his or her expressed needs, and offer smart choices for consideration.

Resolution and negotiation between staff and Residents will yield realistic actions taken within the scope of the AFRH resources and capabilities—yielding highly personalized results. The Agency’s core person-centered “values” include: choice, dignity, respect, self-determination, and purposeful living within the support structure of a caring environment.

Person-centered Care does not imply all Resident desires are to be met without regard to available resources and the organization’s ability to successfully meet their needs.

### **ONGOING PLEDGE**

The value of Person-centered Care extends well beyond development of a written plan. The way in which the AFRH implements each plan is equally important to ensure our planning and service are truly person-centered:

- The AFRH pledges to continually evaluate its policies, procedures, and the delivery of Person-centered Care to ensure the spirit of the plan is deployed Agency-wide
- The Agency is committed to breaking down silos and barriers within the organization that inhibit or slow its comprehensive plan to achieve a person-centered Home
- The AFRH will ensure that planning and implementation of this philosophy is in sync with policy and guidance provided by CARF, the AFRH accrediting organization



### **FUTURE GOAL**

Person-centered Care will help the AFRH achieve its Mission, Vision and Guiding Principles, which will ultimately make this a more vibrant and wonderful place to live and work.

# EXECUTIVE SUMMARY

## PLAN CONTENTS

The AFRH CIP is a thorough overview of upgrades over the next 10 years. It contains four distinct Volumes:

- **Volume I** is an executive-level summary of all Volumes.
- **Volume II** is the AFRH-Gulfport Capital Improvement Plan. Included here is the 10-year Plan of capital improvement projects, with the overall end vision of the property, timeline, funding, review, and recommendations with mitigation strategies based on EO 13423 and EO13514
- **Volume III** is the AFRH-Washington Capital Improvement Plan. Included here is the 10-year plan of capital improvement projects, overall end vision of the property, timeline, funding, review, and recommendations with mitigation strategies based on EO 13423 and EO13514
- **Volume IV** is the AFRH Long Range Financial Plan (LRFP), an economic analysis that supports the Agency's ability to fund these projects and assures the solvency of the AFRH Trust Fund

The AFRH is committed to “person-centered” residential living. Yet, the physical structures and services lag behind this vision and must be modified to effectively deliver on this new movement. As a Federal Agency, management recognizes that capital improvements are an investment in the future of the AFRH facilities. While the Agency has created a Long Range Financial Plan to evolve and remain solvent, management must now integrate its Person-centered Care philosophy and develop plans for each campus to realize this new vision. Hence, the Agency is pleased to present 10-year Capital Improvement Plans (CIPs) for both communities. These Plans include a compilation of various development projects with detailed descriptions, dependencies, compliance requirements, and costs. An additional purpose for these Plans is to align the Long Range Financial Plan with the Agency's new capital improvement needs.

### *Gulfport Plan*

AFRH-Gulfport (AFRH-G) is located on 47 acres on the Mississippi Sound. The facility was rebuilt splendidly and its grand opening was in October 2010. Yet, this campus still has capital improvement needs, given the Agency's new focus on Person-centered Care. Planning for a comprehensive program of landscape improvements for the AFRH-G campus began in 2011, which will serve as the Master Landscape Plan (MLP) for implementation of future landscape projects. All projects envisioned for development by 2021 must be planned and funded. (Detailed plans are in Volume II).

### *Washington Plan*

AFRH-Washington (AFRH-W) sits on 272 acres featuring dozens of buildings in the heart of Northwest Washington, DC. After consultations with historical, architectural, and energy experts plus engineering consultants, management has determined the best and most efficient footprint revolves around the historic quadrangle near the Eagle Gate. Hence, AFRH-W is no longer utilizing buildings that do not directly serve current Residents—such as the old security building, the former administration building, and the Grant Building. These buildings are a valuable resource, and are now available for renovation and lease by outside entities.

The following transition projects are now complete: activity and dining spaces, a Sherman–Sheridan building connector, as well as relocation of IT and chilling towers. More projects are envisioned and include renovating the Eagle Gate, putting Sherman and Sheridan on their own heating units, upgrading HVAC systems in the

historic residences that are being leased, upgrading security fences and access, relocating two golf greens to accommodate the development of “Zone A”, creating keyless entry to Resident rooms, installing safety deposit boxes, building a new golf clubhouse to Leadership in Energy and Environmental Design (LEED) standards, and developing more efficient ways to irrigate the golf course.

AFRH is also developing a Master Landscape Plan (MLP) for its Washington campus, which will include projects that encourage Residents and visitors to use more of the property for outdoor physical activity, social gathering, relaxation, educational experiences, and therapy. Sites featured in the MLP include the historic Scott monument with its splendid view of the US Capitol and the scenic Lakes. The AFRH-W campus also has projects underway involving American Disabilities Act (ADA) accessibility requirements, suicide prevention modifications, and signage for visually impaired Residents.

### The Planning Process

In 2011, the AFRH held VISION workshops on each campus to elicit ideas and comments to craft its Capital Improvement Plans. Each community developed ideas for their unique location and amenities.

The visions for AFRH-G and AFRH-W, which were developed separately and entailing different ideas, actually share some smart concepts. To provide basic amenities, team leaders on both campuses agree on “Affordability”, “Healthcare Levels”, as well as “Safety and Security”.

Management envisions the AFRH as being “in the future”. So, beyond the Basics in this chart, we believe a strong “value-add” for current and potential Residents includes local amenities, military heritage, person-centered freedom of choice, recreation and leisure, social activities, and most of all, a stress-free quality of life.

In various team-based workshops in 2011, our staff and contractors brainstormed possible capital improvement projects to achieve the AFRH Vision. Volumes II and III of the CIP contain the detailed descriptions of those projects. A project timeline (based on dependencies and urgency) has been crafted for a 10-year period, including projects already started.

In early 2012 the AFRH assembled its management team again to evaluate the progress of the plan developed in 2011, to visualize new Capital Improvement goals, and to coordinate the Capital Improvement Plan with the development of Master Landscape Plans for the grounds of both AFRH-G and AFRH-W. The collaboration among AFRH’s resident and staff communities as well as agency consultants is captured in this FY2012 update to the plan.

#### Thoughts from Planning Sessions: VISION for Basics

GULFPORT	WASHINGTON
Affordability	Cost
Healthcare/Levels of Care	Level of Healthcare
Safety and Security	Safety and Security
Appearance/Cleanliness	Access/Transportation
Caring Environment	Eligibility and Exclusivity
Professional Staff	Food Location

#### Thoughts from Planning Sessions: VISION for Value-Added

GULFPORT – Lifestyle	WASHINGTON – Person-Centered Amenities
Area amenities	Area amenities
Association with military/ Proximity to nearby military	Military heritage
Freedom to Choose	Person-Centered Care
Recreation/Leisure and Social Events	Resident Activities
Stress-free living	Quality of Life
Mild weather	Campus amenities
Location/Beach	Campus history
Southern cooking	Condition of facilities
Spacious, furnished rooms	Reputation for staff and services

*Impacts to the bottom line are outlined in VOLUMES II & III. A key aspect of the AFRH CIP is ensuring that “Person-centered Care” will continue to be the main driver in both of the AFRH communities.*

## CONCLUSIONS & RECOMMENDATIONS

The AFRH has developed the CIP to advance its current needs and future goals through capital improvement projects at its Gulfport and Washington communities. The projects outlined in this Plan will collectively enable the Agency to provide Residents with the best possible service in Person-centered Care, while also improving financial performance, environmental and operational efficiency, and regulatory compliance at both the Agency and community levels. Volume I of the CIP outlines the needs and goals for each campus, as identified in 2011-12 staff visioning sessions. Volumes II and III of the CIP use this information along with the AFRH projected budget to prioritize and schedule proposed projects over the next decade for each community. Specifically, Volume II features 26 projects for AFRH-G and Volume III presents 43 projects for AFRH-W.

While both AFRH communities have different capital improvement needs, the individual Plans for both are linked to the Agency's singular Mission, Vision, and Guiding Principles. The projects presented in the CIP address specific Agency-wide priorities including safety, security, compliance, Resident needs, financial responsibility, and Agency/campus image. At the community level, the projects proposed for Gulfport focus on leveraging the benefits of the modern facility, as well as the natural resources of the Gulf region to optimize the living and working environments at AFRH-G. The projects for Washington will consolidate and update facilities and operations while maintaining and celebrating the historic resources and setting at AFRH-W.

Over the next 10 years, individual project scopes may change and Agency resources / priorities may shift. Hence, Volumes II and III each present general purpose and need information for each project but do not present specific cost estimates or completion dates. Such specific information is presented in Volume IV, which the AFRH will maintain as a working document. To assist in Agency planning, Volumes II and III each include a project timeline that illustrates general project sequencing projected through FY21. This timeline is updated on an annual basis, and provides a framework for the AFRH to use in more specific scheduling and budgeting activities for each year.

In summary, the CIP provides a valuable framework for the AFRH to ensure capital improvements are planned and completed in a way that supports the Agency's commitment to our nation's veterans. As planning efforts move forward over the next decade, the AFRH will refer back to Volumes I, II, and III of the CIP to ensure any changes made to the project sequencing and schedule are consistent with the overall visions for each AFRH community and the Agency-wide priorities and goals.

### CURRENT AFRH PROJECTS (IN VARIOUS STAGES)

#### **AFRH-G has relatively few capital improvement needs:**

- Landscape improvements (Master Landscape Plan)
- Updates to irrigation system
- Improvements at loading dock
- Security enhancements at perimeter and generator platform
- Miscellaneous improvements to refine operations of new facility
- Efforts to improve energy efficiency

#### **AFRH-W has many ongoing projects:**

- The Scott Project initiative
- Landscape improvements (Master Landscape Planning)
- Perimeter and security improvements
- Earthquake recovery efforts
- Efforts to improve energy efficiency

# AFRH BACKGROUND AND CONTEXT

## AFRH HISTORY

Two centuries ago, the leaders of our young nation made a Promise to care for our aging and infirm former military personnel. This pledge would serve as payback to former military personnel for risking their lives to preserve liberty and our young Republic. In 1811, the US Congress fulfilled this Promise by passing legislation to create a home in Philadelphia for destitute Navy officers, sailors and Marines. Thus, a legacy was born.

### *The First Home*



A charter for the first military home was drafted in 1811 “to provide a permanent asylum for decrepit and disabled naval officers, seamen, and Marines.” An interim Naval Hospital opened to a few dozen seamen in 1831 while the state-of-the-art Asylum was being built close by. Finally, the Naval Asylum officially opened in 1834 in Philadelphia housing 400 pensioners. Eventually, its name was changed to the Naval Home in 1880.

The Naval Home was initially funded by paycheck contributions from active forces. In 1934, Congress abolished the Home’s Pension Fund and proceeds were deposited into the US Treasury. From 1935 until 1991, the Naval Home was funded by Navy appropriations.

In the late 1960s, it was determined that the Naval Home could not be economically modernized and expanded, and the most cost-effective program would be to build a new site. The selected location was 36 acres of quiet waterfront land on the Mississippi Sound in Gulfport, MS (the former site of The Gulf Coast Military Academy, a military school for young men).

By 1976, the new Naval Home in Gulfport, MS opened and cared for 609 Residents in a new 11-story tower. The Naval Home became AFRH-Gulfport during the 1990s when Congress merged it with the US Soldiers’ & Airmen’s Home in Washington, DC. AFRH-G remained open and its relaxed environment reflected the culture of the south. AFRH-G served Residents for nearly 30 years until Hurricane Katrina destroyed it in 2005.

Immediately after the Hurricane, all Residents were safely evacuated. About 300 were transferred temporarily for 5 years to AFRH-W. The Gulfport tower was closed in 2006, and then demolished in 2008. Through funds generously appropriated by Congress, the new AFRH-G—a state of the art facility with energy efficiencies first certified as LEED Silver and now LEED Gold as of 2012—opened for Residents in October 2010.

Today, the new community is a model for senior health and housing. AFRH-G has a capacity of 584 Residents with a mix of Independent Living (IL), Assisted Living (AL), Long Term Care (LTC) and Memory Support (MS).

## *The Second Home*

For decades, key figures in the military sought to establish a care home for aging and infirm US Army soldiers. Major Robert Anderson, who commanded the Union's Fort in Sumter, SC—where the Civil War's first volleys were fired—was a vocal supporter. Additionally, Jefferson Davis, President of the Confederacy, and most importantly, General Winfield Scott, both fought to establish an old soldiers' home for nearly 25 years.

At last, Congress finally approved a Bill in 1851 following the Mexican War. General Scott, who was in charge of American troops during this war, was now considered an American hero. Scott returned with \$150,000 that was paid to him by Mexico City, in lieu of ransacking. He promptly paid off his troops, bought new supplies, and offered the remaining money to Congress to establish a Home.

Ultimately, the Government purchased a home and farmland in the Washington countryside from businessman George W. Riggs, who went on to establish the prominent Riggs National Bank. The Cottage was ceremoniously named Anderson Cottage, after its most ardent advocate.



In 1851, The Military Asylum was officially established in the Anderson Cottage as an “asylum for old and disabled veterans”. A Governor administered this new Washington, DC home, and in turn, he was responsible to a Board of Commissioners. The Asylum also had sister branches based in New Orleans (1851-58), Louisiana, East Pascagoula, MS (Greenwood’s Island), and at Western Military Asylum in Harrodsburg, KY.

This Early Gothic Revival cottage (pictured above) served as the very first quarters of the Military Asylum starting in 1851 with just five “inmates”. Residency grew rapidly, and in 1859 the Asylum was redesignated the US Soldiers’ Home by an Act of Congress.

Air Force personnel were accepted as part of the Army establishment from 1917-47 and this continued after the establishment of the US Air Force as a separate service in 1947. As such, The Soldiers’ Home was redesignated the US Soldiers’ and Airmen’s Home (USSAH) in 1972.

Four of the Home’s original buildings still stand and are listed as National Historic Landmarks. Two of the buildings, Quarters 1 and Anderson Cottage, served as the summer homes for many US Presidents such as Chester A. Arthur, Rutherford B. Hayes, James Buchanan, and most notably, Abraham Lincoln.



President Lincoln lived in Anderson Cottage during our nation's Civil War. Not only was it a respite from the hot and humid city, but also from the intense political pressures of being President during this trying War. In fact, Lincoln spent one-fourth of his presidency at the Soldiers' Home, and it was here where he wrote the final draft of the Emancipation Proclamation. In 1865, Lincoln's wife, Mary, wrote to her dear friend Elizabeth Blair Lee, "How dearly I loved the Soldiers' Home."

Recently, the Cottage underwent major restoration, was designated a National Landmark, and is known today as President Lincoln's Cottage.

Since the Home's early beginnings, operational funding has always come from the soldiers themselves (and later, from airmen). A permanent Trust Fund was established in the 1800s, and it was fed by monthly, active duty payroll deductions of 25 cents—when the average pay of a soldier was \$7 a month. All fines and forfeitures from the Army (and later the Air Force) came to the USSAH and, combined with monthly withholdings, provided the main support for the Home throughout its history.

### *Establishment of the AFRH*

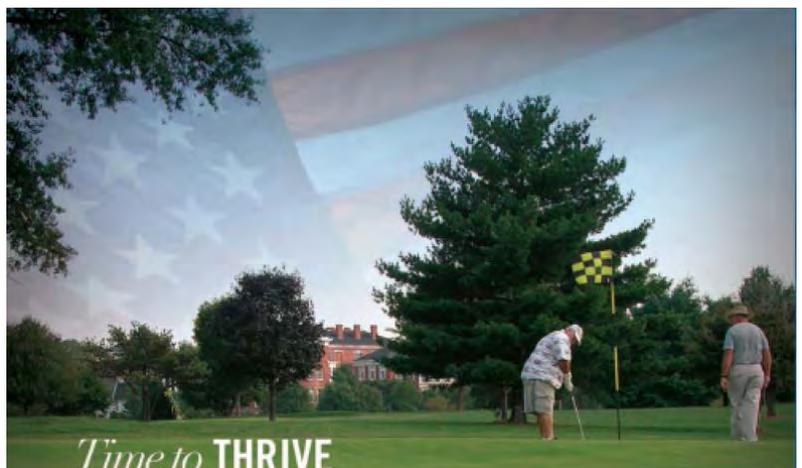
Per the Armed Forces Retirement Home Act of 1991, Title XV of the National Defense Authorization Act (NDAA) of 1991 (104 Stat. 1722), November 5, 1990, the Naval Home and USSAH were combined into one entity to serve all branches of the US military—the Armed Forces Retirement Home (AFRH).

The National Defense Authorization Act of 2002 made a permanent change in the Home's management structure, including the appointment of a Chief Operating Officer (COO) by the Secretary of Defense. An Advisory Council appointed by the Department of Defense (DoD), provides expert counsel and knowledge of military- and medical-related concerns to the Homes.

Today, the AFRH is a unique independent Federal Agency that resembles a private-sector Continuing Care Retirement Community (CCRC). The COO is subject to the authority, direction and control of the Secretary of Defense, delegated to the Under Secretary of Defense (Personnel & Readiness) and the Deputy Under Secretary of Defense for Military Community & Family Policy.

The AFRH is organized in a contemporary business establishment, with a Corporate Office that manages independent functioning retirement communities in different locations (now Gulfport, MS and Washington, DC). This arrangement allows Corporate to make strategic decisions and communicate with Congress and constituents.

Using the successful "One Model" for all community operations, each Home has a Administrator who reports to the COO. Plus each community can make its own tactical operational decisions, manage its facilities and respond to



*2011 AFRH Marketing Kit Cover*

local Resident requirements.

Since 1834, the AFRH has evolved from two distinct “Asylums for the old and disabled,” to one modern retirement community. Today it offers a secure and comfortable lifestyle filled with dynamic activities and various levels of care based on the Residents’ unique needs and desires.

Whereas “inmates” once lived in eight-man dorm rooms, all of today’s Residents have private rooms with private baths. The two Homes are examples of a “total life-care” community that adds to an active Resident’s life now, and provides vital services to meet virtually any need in the future.

For years, the AFRH had a longstanding accreditation in nursing care by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO – now known as The Joint Commission or TJC). However, in FY07, the AFRH embarked on acquiring a broader, more comprehensive accreditation service to review all of its healthcare practices. As such, the National Defense Authorization Act (NDAA) of 2008 required the AFRH to seek and secure new independent accreditation.

In FY08, the AFRH worked diligently to implement new standards in accordance with those set forth by the Commission on Accreditation of Rehabilitation Facilities / Continuing Care Accreditation Commission (CARF/CCAC, or simply CARF). This entity is an independent, nonprofit accreditor of human service providers in the areas of aging services, behavioral health, child and youth services, employment and community services, medical rehabilitation, opioid treatment programs, as well as Durable Medical Equipment, Prosthetics, Orthotics, and Supplies (DMEPOS).



The CARF family of organizations currently accredits more than 5,000 providers at more than 18,000 locations in the United States, Canada, Western Europe, and South America. Annually, CARF accredited providers serve more than 6.5 million people of all ages. This CARF accreditation replaces the Home’s longstanding JCAHO (TJC) accreditation. The AFRH received a 5-year accreditation by CARF in August 2008 and once again in 2010.

In addition to the CARF inspection, the NDAA of 2008 enhanced the manner in which the DoD conducts inspections at the AFRH. No longer will the Agency be inspected by the Armed Services (Army, Navy and Air Force) triennially. The DoD Office of the Inspector General (IG) now inspects each Home in the years it is not inspected by an independent accreditation body. The AFRH was inspected by CARF in 2011. Both AFRH-G and AFRH-W received their CARF accreditation for 5 years. In 2012 both campuses will be inspected by the DoD IG.

Both Homes are funded from the AFRH Trust Fund, which receives monthly support of 50-cent withholdings of active duty enlisted personnel, plus fines and forfeitures, interest from the Trust Fund, property leases, and Resident fees. In 2010, Congress approved members of the US Coast Guard for admission to the AFRH. Now members from all five Services are eligible for residency. The year 2011 marked the 200th anniversary of the Military’s original Promise to “take care of its own” and safeguard its aging and infirm former military.

## THE AFRH TODAY

The Agency continues to provide shelter and care for former enlisted military, Warrant Officers and veterans as they age. This care demonstrates to today’s soldiers – and tomorrow’s veterans – that their service and sacrifices will not be forgotten. Just as our brave young men and women helped save the world from fascism in the 20th Century, today’s heroes can defend and preserve our way of life – knowing their country will repay them for their devoted service. Now, more than ever, the AFRH and Congress are bound to honor that original Promise, the

Home's heritage, as well as the fine traditions of the US Armed Forces.

The AFRH is more than buildings that house soldiers, sailors, airmen, coasties, and Marines who served our country with steadfast devotion. This is a safe haven and "home" to more than 1,000 patriotic veterans – a dynamic, thriving community of men and women who all share commitment to country. To meet their day-to-day needs, the Agency will continually strive to be person-centered...to enrich their daily routines...to challenge their minds and bodies...and to provide camaraderie and companionship in a supportive community setting.

In the midst of these advances, AFRH experienced a major setback in Washington. On August 23, 2011, a 5.8 magnitude earthquake rattled the Washington Campus. Four days later, a category 1 hurricane swept through the District. Luckily, no member of the AFRH community was harmed as a result of the events, but multiple facilities suffered significant damage. One of the most daunting misfortunes was the structural damage that affected the Sherman Building, the centerpiece of the Home's National Historic Landmark. This edifice served as the heart of agency administrative operations and necessitated relocation of administrative staff to rooms designed as Resident dormitories. Thanks to Congress and the President, AFRH will be able to restore the historic Sherman Building beginning in FY 2012. This project is included in Volume III.



## THE “AFRH OF THE FUTURE”



*AFRH-G, resting on the shores of the Mississippi Sound (Completed 2010)*



*AFRH-W, nestled in the heart of DC's vibrant metropolis (Under construction, to be completed 2013)*

With the successful One Model for efficiency in place, management ultimately envisions new AFRH communities in desirable retirement locations around the US. After all, today's retiree has new and evolving needs and expectations, which often include living in a temperate climate with vast amenities. The facility in Gulfport, completely rebuilt following Hurricane Katrina and fully operational since 2010, is a model of energy efficiency and senior living. The AFRH in Washington is currently building a new healthcare and commons building to replace the aging 1950s Scott Building. The New Scott Building is slated to open in 2013 as a state-of-the-art LEED-Gold facility, and a healthcare model for the small house concept in senior living.

Adding new retirement homes will allow the AFRH to serve and care for even more veterans and retired military—and truly fulfill the original Promise our nation's leaders made two centuries ago.

The future of AFRH is dependent on strategic sustainability, which is a large component of capital planning. The Environmental and Systems capital improvement projects are part of the Agency's effort to measure, report,

and reduce energy and water consumption, waste generation, and greenhouse gas (GHG) emissions while improving operational efficiency. This effort has become a core component of Agency operations and will help maximize efficiency of AFRH's existing infrastructure while introducing renewable energy sources for the future.

Outdoor programming and full appreciation of AFRH property as an amenity to its Veterans, visitors, staff, and surrounding communities is another priority area for the agency. To help bring this goal to fruition, AFRH began developing Master Landscape Plans (MLPs) for both of its campuses to create a cohesive vision for future landscape improvements. The MLPs provide guidance to create AFRH landscapes that are accessible, functional, enjoyable, engaging, aesthetically pleasing, and appropriate for environmental conditions. The plans map out options for AFRH to beautify and improve its property effectively and conveniently. Projects supporting the Master Landscape Plans and the Strategic Sustainability Performance Plan (SSPP) are included in this CIP.



*Left: Graduation Oak and Chapel at AFRH-G.  
Below: Sample map for a perimeter walking trail at AFRH-W.  
Both from MLP drafts, 2012.*



## **AFRH Master Landscape Planning is underway in 2012**

# **CAPITAL IMPROVEMENT PLANNING AND STRATEGY: HIGH-LEVEL PLANNING**

## **“SWOT” ANALYSIS**

The AFRH is a unique Federal Agency that closely resembles a private sector CCRC. The key distinction: it only admits eligible former military members in accordance with guidelines established by law, and a longstanding Trust Fund supplies its resources. To advance the Agency, management conducted a Strategic “SWOT” Analysis – a detailed assessment of Strengths, Weaknesses, Opportunities and Threats.

### **STRENGTHS**

- Unique Brand
- Dedicated Staff
- Expansive, Valuable Properties
- Loyal Residents
- Rich Military Heritage
- Ample Levels & Types of Care
- New Modern Facilities
- Human Capital Plan
- IT Modernization
- CARF Person-centered Progress
- Resident / AFRH Partnership

### **WEAKNESSES**

- Silos in Communication
- Accountability via CARF Standards
- Decaying Physical Plant
- Not Capitalizing on External Stakeholders
- Training Gaps for Staff
- Absence of Contractor Training
- Insufficient Resident-centered Services
- Limited Campus Locations

### **OPPORTUNITIES**

- Large Pool of Potential Residents
- Educating New Constituents
- Poor Economy = Cheaper Goods & Services
- Meeting New Expectations of an All-volunteer Force
- Advertising to VSOs & the Public
- Fundraising
- Social Networking (Residents / Prospects)
- “Virtual” Provision of Services

### **THREATS**

- AFRH Value Not Universally Recognized
- Poor Economy = Prospects Can’t Sell Homes
- Declines in Retirement Investments
- Drains on the AFRH Trust Fund
- Limitations in Replenishing Trust Fund



## STRATEGIC GOALS

### **GOAL** Embrace Resident-centered Care

*Each person will understand each Resident's individual needs and take realistic action to fulfill them within AFRH resources and capabilities.*

The Agency's first responsibility is to ensure the satisfaction and wellbeing of the Residents. The AFRH also places high importance on the satisfaction of service partners and key stakeholders. To generate high customer satisfaction, the AFRH will strategically provide quality services and meet our customers' needs. Yet, this is a negotiated relationship that operates within the realistic means and capabilities of the AFRH.

### **GOAL** Maintain Exceptional Stewardship

*Pursue and implement innovative ways to deflect, reduce, and manage costs by maximizing assets, resources, and programs to fulfill needs and wishes of current / future Residents.*

The AFRH Trust Fund is the source of financial resources for the AFRH and has to be continuously replenished. The fundamental AFRH financial strategy is to effectively manage resources, decrease expenditures, increase revenue and realize net growth in the AFRH Trust Fund. The AFRH must maximize all available resources – while also providing the best services and facilities to our Residents. The AFRH, like all other Federal agencies, is required to meet energy, waste, water, and gashouse emissions standards. That requires the involvement of every person – from staff and Resident to volunteer and contractor – to be aware, involved, and active in conserving energy.

### **GOAL** Promote Staff-centered Environments

*Expand staff knowledge that directly impacts the accountability and efficiency of the Agency, which will in turn empower all employees to be proactive.*

Person-centered Care also involves the staff and their personal and professional growth. Every staff member must be aware of his/her ability to affect a difference in the bottom line as well as his/her interactions with other staff, Residents, family members, and stakeholders. The AFRH is a growth organization that promotes professional development and excellence for all staff. Management can achieve this by promoting learning, refining skills, building competencies, developing proficiencies and encouraging advancement. The Home encourages its employees to continually improve and expand their skills – while also gaining from the rich experience of serving the AFRH community.

### **GOAL** Leverage External Stakeholders

*Harness, cultivate and focus our external stakeholders to become increasingly active participants who are engaged in AFRH operations in each of the next five years.*

The Home can provide quality services to America's former enlisted by expanding its circle of influence to families, organizations, and corporations that are interested in veterans. These stakeholders can help to manage resources, facilitate communication, and promote AFRH operations.

## PLANNING IMPERATIVES

AFRH HAS IMPOSED UPON ITSELF KEY RULES TO GUIDE ALL CAPITAL IMPROVEMENTS, ANALYSES, AND DECISIONS:

### 1) FINANCIAL:

All project costs must not exceed, in one fiscal year, the total allocations for that year by:

- Working within the confines of the allocated funds
- Estimating all costs in FY11 dollars; inflation will be factored as the plan is rolled out, and
- Considering life-cycle costs and benefits, specifically for capital projects that will reduce long-term utility, resource, or compliance costs, and using life-cycle considerations in capital planning.
- Maintaining a conservative financial approach, including a reasonable contingency that will be assumed, in projecting the construction program costs

### 2) SUSTAINABILITY:

All project plans must comply with the GSA Guiding Principles on Sustainable Existing Buildings, as well as Executive Orders concerning resource efficiency and sustainability. In addition, project plans will incorporate sustainable building features to reflect the Agency's responsibility to conserve financial and environmental resources. To succeed, the Agency will:

- Employ best practices for integrating assessment, operations, and management
- Measure and optimize energy performance
- Measure and conserve water use and protect water quality
- Enhance indoor environmental quality, and
- Choose materials with lowest possible environmental impact

### 3) COMPLIANCE:

All projects must meet AFRH and Federal requirements & standards including:

- AFRH Mission, Vision & Guiding Principles
- AFRH Person-centered Care Philosophy
- HIPAA and NEPA
- AFRH-W Master Plan
- NHPA
- EO 13423 and EO 13514
- CARF and ADA

#### **4) PERSON-CENTERED:**

All projects must reflect the AFRH Person-centered Care philosophy: the careful manner in which Resident needs are considered while developing responsive plans of care and delivering purposeful services. This also means that:

- AFRH Residents are active participants in guiding and charting their own lives
- Everyone must identify and understand each Resident’s individual needs, listen carefully to the Resident’s expressed needs, and offer smart choices for consideration

## **COORDINATION WITH AGENCY DOCUMENTS**

### *Relationship to Strategic, Business, and Long Range Financial Plans*

The AFRH Strategy was revitalized in FY11 to help the Agency become a vibrant, person-centered organization. This Plan is the basis of the Agency and Campus Business Plans, and it contains specific actions to help us realize Agency Goals. The AFRH Vision and Mission guide all forward-thinking plans for the future. Within the AFRH Strategy is a capital improvement component. Now, all projects directly support the Agency’s person-centered vision – the lens through which the Agency regards and shapes all activities. Further, all services and the associated physical structures are aligned to support the AFRH Vision. The AFRH Long Range Financial Plan (LRFP) captures the data and requirements from the Strategic and Business Plans. It also presents the economic analysis that supports the Agency’s ability to fund these projects and assures the solvency of the Trust Fund.

### *Relationship to AFRH-W Master Plan*

Given the historical buildings and site at AFRH-W, all projects must be compliant with the approved Master Plan. For details, see the Compliance section below – under the Master Plan and the Historic Preservation Plan.



# CAPITAL IMPROVEMENT PLANNING AND STRATEGY: SPECIFIC CIP METHODOLOGY

The prioritization of projects for the AFRH Capital Improvement Plan is based on three major considerations: project objectives, project dependencies, and the proposed annual capital improvement budget. The project timelines presented here (as well as in Volumes II and III) reflect all information available as of the third quarter of FY2012.

It is likely that the sequence of projects will be adjusted as scopes become more defined, cost estimates become more accurate, and priorities shift. While the timeline may be revised annually through FY2021 based on these variables, it is an important aspect of this plan as it used as a planning tool for AFRH and a baseline for discussion of project implementation.

## PROJECT OBJECTIVES/PRIORITIES

The projects planned for the AFRH all have specific goals, initiatives, and varying levels of necessity. Many of them have overlapping goals, as there are several projects that will address common initiatives and broader programs underway at the Agency. To streamline the planning process and identify shared goals, the objectives for the approximately 70 projects on both campuses were simplified into five unique categories. The five major objectives of the AFRH capital improvement projects have been summarized as follows:

- **Safety and Security:** The project addresses a security or safety concern or deficiency at AFRH
- **Compliance:** The project addresses the Agency's need to comply with regulations, standards, and guidelines relevant to its operation as a Federal Agency and a CARF-accredited Continuing Care Retirement Community
- **Resident Priority:** The project addresses specific concerns/wants/needs voiced by Residents at AFRH
- **Financial Impact:** The project results in a short- or long-term cost avoidance or may bring in additional income for the Agency
- **Agency/Campus Image:** The project affects how AFRH is perceived by potential Residents, the surrounding community, and Congress

Projects that meet Safety and Security goals and that are necessary for the Agency to comply with relevant standards, guidelines, and regulations are given highest priority. Projects that met all or a majority of the objectives categories were given priority when budget constraints presented limitations in a fiscal year.

## PROJECT DEPENDENCIES

Once the five major objectives of AFRH capital improvement projects had been considered, AFRH began identifying project dependency groups among the projects at the Washington campus to continue the planning process. Two types of dependency groups that inform the proposed timeline at AFRH-W are:

- **Functional Dependencies:** Groups of projects that should be done in succession or simultaneously to optimize operations at AFRH-W or to ensure minimal interruptions to operations on campus during project completion. Please note that some functional dependencies also result in cost savings, but the

functional dependency takes precedent over any potential cost dependency.

- Cost Dependencies: Groups of projects that, if done together, may result in Agency cost savings due to similar scopes of work and the ability to consolidate contractor agreements and efforts.

Not all capital improvement projects are captured in the dependency groups outlined above. With no functional or cost-effective linkages to the dependency groups, the priorities of each independent project (including all projects at AFRH-G) were evaluated based on the project objectives, as outlined in the preceding section. Projects identified as having Safety and Security objectives, as well as Compliance objectives, received first priority in scheduling at AFRH-G.



*Serenity at the shore, AFRH-Gulfport*



*Peaceful morning scene at AFRH-Washington*

## ALLOCATION OF FUNDS

Congress authorizes the allocation of capital funds from the AFRH Trust Fund on an annual basis. Since FY08, the AFRH has received \$2 million per year for Agency-wide capital improvement spending. This amount will remain at \$2 million per year through FY13 and includes the contingency money set aside for emergency spending in campus operations. For general planning purposes, it is assumed that the annual allocation for FY18–27 will also be \$2 million. The only year in the plan that operates on a larger budget is FY11, which was allocated an additional \$1 million for improvements associated with the Scott Project in Washington.

The total budget assumed for the capital improvement plan for FY10–FY21, approximately \$20 million, was distributed between the Washington and Gulfport campuses based on relative need. Given the recent completion of the main facility in Gulfport and the relative scale and condition of the Washington campus, the majority of funds are allocated to AFRH-W.

The age and historic significance of the Washington campus puts further demand on the capital improvement budget to address issues such as modernization of infrastructure and systems, as well as sensitive repairs and alterations to historic resources. The earthquake that struck AFRH-W in August 2011 created an exceptional need; in response, Congress appropriated an additional \$14.6 million in capital funding to be used to repair property damage and to restore Agency operations that were disrupted and displaced by the natural disaster. All funds designated for earthquake relief at AFRH-W are kept separate from the annual \$2 million appropriation, and will not be incorporated into the capital budget to meet Agency needs unrelated to the effects of the earthquake. Additionally, the office of campus operations in Gulfport is able to fund several capital improvements with resources allocated for operations and management.

Initial estimates of project costs informed the scheduling proposed in the CIP. Those projects for which AFRH has not received a formal quote have too many variables to present accurate financial data as of FY12, and cost estimates are subject to change as project scopes become more defined. To allow for more frequent updates and refinements, all budgeting and financial information is included in a separate Volume (Vol. IV) of the AFRH CIP.



# **COMPLIANCE**

## **ADVANCING THE AFRH**

All Capital Improvement Projects within the plan must be consistent with, and help advance, the Agency's Strategic Platform of Mission, Vision, and Guiding Principles (as outlined above, PURPOSE). Further, to advance the Agency, the AFRH also complies with many Federal Acts and Regulations:

### ***The Health Insurance Portability & Accountability Act***

Since the AFRH provides healthcare services to Residents, it must comply with the Health Insurance Portability and Accountability Act of 1996 (HIPAA). Capital improvement projects will be subject to compliance with both the Privacy and Security Rules under HIPAA.

HIPAA (PL 104-191) became Law in 1996. It stipulates the US Department of Health and Human Services (HHS) develops National standards for electronic healthcare transaction security and Federal privacy protections for individually identifiable health information. In response, HHS published the Privacy Rule and the Security Rule in 2000 and 2002, respectively.

The Privacy Rule (45 CFR Parts 160 and 164) This Rule was initially published in December 2000 and modified in August 2003. It protects individually identifiable health information by three types of covered entities. Compliance with this Rule has been required since April 14, 2003. It is enforceable by the Office for Civil Rights. The Security Rule (45 CFR Parts 160, 162, and 164) The Security Rule was published in February 2003, setting National standards for protecting the confidentiality, integrity, and availability of electronic protected health information. Compliance requirements for this Rule became effective on April 20, 2005. It is enforceable by the Office for Civil Rights.

Sections of these Laws include regulations for real and personal property associated with medical services and health information that may become necessary for review in association with the AFRH capital improvement projects. For instance, Section 164.310, Physical Safeguards, includes specific requirements for facility access controls as well as workstation and equipment security. This could include changes to building entrance and egress points to accommodate equipment and physical interior changes to patient and doctor environments. Further, AFRH investments in IT that would store, process, or transmit individually identifiable health information would also require compliance with these Laws.

### ***National Environmental Policy Act***

To comply with NEPA, each capital improvement project must include consideration and analysis of its impacts on the environment, as well as on the relationship of people with the environment. Specifically, each project must comply with the AFRH NEPA compliance policies established in 38 CFR Part 200 in Nov. 2009.

President Richard Nixon signed the National Environmental Protection Act (NEPA, PL 91-190, as amended) into Law on January 1, 1970, requiring every Federal agency to consider the impact of its actions on the human environment. NEPA also requires them to establish agency-specific procedures for NEPA compliance.

The AFRH established its Agency-specific NEPA procedures in 2009 to ensure implementation and cooperation with related agencies, including the National Capital Planning Commission (NCPC). These procedures include guidelines for the Classification of AFRH Actions, which directs the AFRH to place proposed actions into one of three classes of documentation: A Categorical Exclusion (CATEX), Environmental Assessment (EA) or Environmental Impact Statement (EIS).

To comply with NEPA, some capital improvement projects may also need to include public involvement in the planning stages, where necessary. The AFRH NEPA guidelines provide for this public involvement in the NEPA review process, under the direction of the COO and Master Planner. Public involvement will be incorporated in levels and kinds that are appropriate to the proposed action and its anticipated effects.

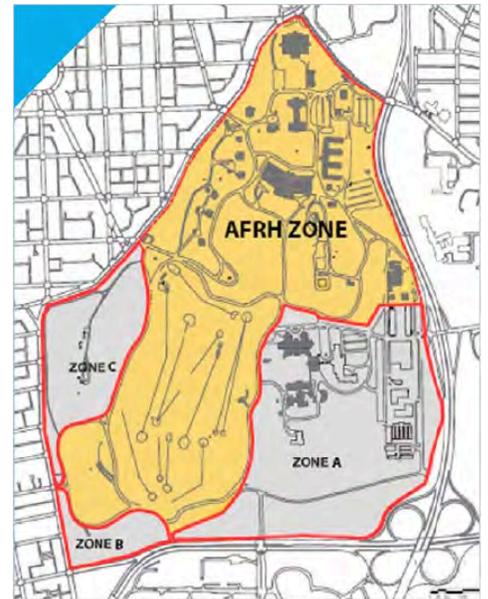
### ***AFRH-W Master Plan***

All proposed capital improvement projects must be consistent with the NCPA-approved AFRH-W Master Plan (2008). Any material deviation will require a Master Plan amendment, which triggers other regulatory compliance related to historic preservation and environmental impacts.

The AFRH-W Master Plan is the basis for facilitating and directing future development by the private sector and by the Agency on the 272-acre AFRH-W campus. This Master Plan was approved by the NCPA in 2008 for its consistency with the Comprehensive Plan for the National Capital (Federal and District elements).

The AFRH-W Master Plan divides the campus into 2 zones:

- AFRH Zone: the main area (195 acres) that will continue to be owned / managed by the Agency primarily for the operation of AFRH-W, and
- Zone A: the non-critical area (77 acres) that will be developed by a private developer for the purpose of leveraging the Agency's real estate to increase revenue and sustain the AFRH Trust Fund



For each Zone, the Master Plan specifies appropriate development footprints, as well as guidelines for land use, new construction, access and security, streets and streetscapes, parking, views and topography, open space, site perimeter, treescapes, foundation plantings, commemorative objects and sculpture, site furnishings, site materials, lighting, and signage. Capital improvement projects proposed for AFRH-W must be consistent with the development footprints and design guidelines set forth in the AFRH-W Master Plan.

Any proposed work or development that is materially inconsistent with the Master Plan will require a Master Plan amendment, which is subject to compliance procedures related to the NEPA and NHPA. Specifically, a Master Plan amendment is subject to review by and consultation with private and public stakeholders including a definite timetable of reviews and submissions. A Programmatic Agreement (PA) accompanies The Master Plan, which addresses historic preservation compliance related to the Master Plan and procedures for amending the Plan.

### ***National Historic Preservation Act***

Since AFRH is a Federal Agency, it must comply with the NHPA of 1966 as amended, and its associated regulations and guidelines. AFRH complies with the NHPA through implementation of the AFRH-W and AFRH-G Historic Preservation Plans and the stipulations of the AFRH-W Programmatic Agreement. Most NHPA compliance for a Federal agency is related to Section 106, Section 110, and Section 111 of the Act.

## *AFRH-W Historic Preservation Plan & Programmatic Agreement*

In 2007, the AFRH adopted the AFRH-W Historic Preservation Plan (HPP) to comply with Section 106, Section 110, and Section 111 of the NHPA. The HPP was prepared in accordance with the NHPA and its associated regulations and guidelines, notably the “Guidelines for Federal Agency Responsibilities under Section 110 of the National Historic Preservation Act” (53 FR 4727) and “Protection of Historic Properties” (as amended August 5, 2004; 36 CFR Part 800).

The AFRH-W HPP is enforced under the AFRH-W Programmatic Agreement, the District of Columbia State Historic Preservation Office (DCSHPO), the Advisory Council on Historic Preservation (ACHP), the National Park Service (NPS), and the AFRH. The PA was executed for the implementation of the approved AFRH-W Master Plan (2008). The AFRH-W HPP establishes internal policies for managing the AFRH-W campus in a manner that maintains the historic integrity of the AFRH-W Historic District and its resources, while also obtaining the most efficient and productive use of the Agency’s property.

Specifically, Chapter 6 of the HPP provides implementation methods that are designed to ensure that the AFRH understands and complies with the legal and technical requirements of historic preservation, while making practical decisions that are consistent with the Mission of the Agency. Chapter 6 also establishes internal procedures for the management of AFRH-W historic resources through the provision of Historic Preservation Standard Operative Procedures (HP SOPs). The HP SOPs ensure the systematic exceptional treatment of historic and potential archeological resources. The AFRH retains a Cultural Resources Manager (CR Manager) to assist the Agency in all NHPA compliance, and the CR Manager should be consulted on all capital improvement projects affecting historic resources.

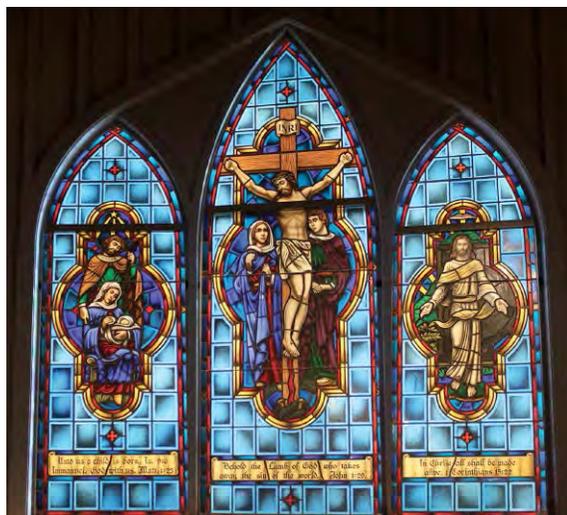
## *AFRH-G Historic Preservation Plan*

In 2008, the AFRH completed a Preservation Plan for the Chapel at AFRH-G, the only historic resource at the Gulfport facility besides the Cemetery. This Preservation Plan provides direction for the rehabilitation and continued use of the Chapel based on an understanding of the significant features of the building, its past use, a careful assessment of conditions, and understanding of desired future uses, and an understanding of the role the Chapel will play in the future of AFRH-G.

## *NHPA Section 106*

All capital improvement projects at AFRH-G and AFRH-W must be assessed for potential adverse effects on historic resources. At AFRH-W, such projects must follow the procedures set forth in HP SOP # 1 (Section 106 Review of All Undertakings). Section 106 of the NHPA (36 CFR Part 800) requires Federal agencies to consider the effects of their undertakings on historic properties and afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment. Once a Federal agency has proposed an endeavor, it must identify a potential area of effect, identify historic properties within that area of effect, identify potential adverse effects to those properties, and resolve those effects through avoidance, minimization or mitigation. This process is coordinated with the State Historic Preservation Officer (SHPO) and could include consultation with other relevant public and private stakeholders.

At AFRH-G, Section 106 review is only required if there are potential effects to the Chapel or the Cemetery, as those resources may be eligible for listing in the National Register of Historic Places.



At AFRH-W, the entire 272 acres have been designated an Historic District. So, the AFRH-W Historic District and its resources must assess all undertakings at AFRH-W. Through the HPP and PA, AFRH-W follows a customized Section 106 process that requires documentation and review that is managed by the AFRH CR Manager. This process typically involves review by the District of Columbia SHPO through an “Undertaking Review Request.”

Larger design projects may require additional review by the NCPC, the Commission of Fine Arts (CFA), and the National Park Service (NPS) if there is a potential adverse effect within the National Historic Landmark, and/or the Advisory Council on Historic Preservation. All AFRH-W undertakings that are consistent with the AFRH-W Master Plan do not require additional consultation with public and private stakeholders.

If an undertaking is not consistent with the AFRH-W Master Plan, an amendment to the Master Plan is required, and the expedited Section 106 process outlined in HP SOP #1 is not relevant. In that case, the undertaking is subject to typical Section 106 review and consultation with relevant stakeholders and the public.

### ***NHPA Section 110***

In planning capital improvement projects, the AFRH must identify and address the preservation needs of its historic resources and aim to keep historic resources in productive use. The intent of Section 110 of the NHPA (16 USC. 470) is to ensure historic preservation is fully integrated into ongoing Federal agency programs, including planning, budgeting, and operations.

Section 110 regulations state explicit Federal agency responsibilities, including the identification and protection of historic properties, the avoidance of “unnecessary damage” to historic resources, and the consideration of projects and programs that advance the goals of the NHPA. This includes the declaration that historic properties under the agency’s jurisdiction or control are to be managed and maintained in a way that considers the preservation of their historic, archeological, architectural, and cultural values.

The AFRH-W HPP establishes implementation actions that ensure compliance with NHPA Section 110. Several of these implementation actions are specifically related to capital planning and potential capital improvement projects at AFRH-W, including:

- Managing all uses & activities affecting the AFRH-W Historic District and its contributing resources with full knowledge of their historic significance and listing in the National Register
- Endeavoring to keep contributing resources in productive use by using contributing resources where feasible and considering new uses for under-utilized historic resources
- Identifying the preservation needs and potential effects of proposed undertakings on the AFRH-W Historic District and its contributing resources early in the Agency’s decision-making process, prior to budgeting and internal approvals, and
- Executing undertakings that affect the ARH-W Historic District and its contributing resources where possible and, when avoidance is not possible, minimizing / mitigating adverse effects.

### ***NHPA Section 111***

All capital improvement projects that are related to the sale, lease, or exchange of historic properties at AFRH-G or AFRH-W must take into consideration Section 111 of the NHPA. At AFRH-W, such projects must follow the procedures set forth in HP SOPs #8, #9, and #10.

The intent of Section 111 of the NHPA (16 USC. 470h-3) is to authorize Federal agencies to sell, lease, or exchange historic properties that they own or control to non-Federal entities for their mutual benefit and to encourage agencies to take measures that will preserve the historic integrity of properties once they leave Federal management. HP SOPs #8 (Disposal: Demolition/Removal), #9 (Disposal: Transfer, Negotiated Sale, Donation, or Sale), and #10 (Disposal: Ground Lease) address the disposal of historic properties at AFRH-W to ensure that the spirit of Section 111 is addressed in their internal procedures.

### ***EO 13423 and EO 13514***

Executive Orders 13423 and 13514 promote leadership in resource efficiency and environmental stewardship among federal agencies. AFRH capital improvement projects must remain in compliance with specific requirements for new and retrofitted buildings and other infrastructure under these Executive Orders. However, the capital planning process also represents a clear opportunity to improve the Home's overall environmental compliance and operational efficiency by improving energy efficiency, reducing resource waste, producing renewable or alternative energy, and integrating sustainability principles into facility design and maintenance.

**Executive Order 13423:** Strengthening Federal Environmental, Energy, and Transportation Management was signed by President George W. Bush on January 24, 2007. It requires the implementation of a wide range of sustainable practices for all Federal agencies. The order directs Federal agencies to: (2a) improve energy efficiency; (2b) use renewable energy sources; (2c) reduce water consumption intensity; (2d) use sustainable environmental practices in acquisitions of goods and services; (2e) reduce toxic and hazardous material use, reduce solid waste, and use recycling programs; (2f) ensure sustainable design and high-performance buildings; (2g) reduce vehicle fuel use through efficiency and alternative fuels; and (2h) ensure proper electronics stewardship.



As an independent Federal Agency, the AFRH is subject to all sections of this Executive Order. For the purposes of planning for capital improvements, however, the Agency will focus on those requirements affecting infrastructure, renovation, and new construction. Three of the Goals for agencies are anticipated to play the largest role in planning for compliance:

- Section 2 (a): Improve energy efficiency of the Agency, through reduction of energy intensity by (i) three percent annually through the end of FY15, or (ii) 30 percent by the end of fiscal year 15, relative to the

baseline of the Agency's energy use in fiscal year 03;

- Section 2 (c): Beginning in fiscal year 2008, reduce water consumption intensity, relative to the baseline of the Agency's water consumption in fiscal year 2007, through life-cycle cost-effective measures by two percent annually through the end of fiscal year 2015 or 16 percent by the end of fiscal year 2015;
- Section 2 (f): Ensure that (i) new construction and major renovation of Agency buildings comply with the Guiding Principles for Federal leadership in High Performance and Sustainable Buildings set forth in the Guiding Principles for Federal leadership in High Performance and Sustainable Buildings (Guiding Principles) Memorandum of Understanding (2006), and (ii) 15 percent of the existing Federal capital asset building inventory of the Agency as of the end of fiscal year 2015 incorporates the sustainable practices in the Guiding Principles.

**Executive Order 13514:** Federal Leadership in Environmental, Energy, and Economic Performance was signed by President Barack Obama on October 5, 2009. It does not rescind the requirements of EO 13423, but expands upon them, aiming "to establish an integrated strategy towards sustainability in the Federal Government and to make reduction of greenhouse gas emissions a priority for Federal agencies."

EO 13514 provides specific requirements and deadlines for greenhouse gas inventories and reductions, requiring that agencies establish and work toward their own reduction targets relative to a 2008 baseline. It also adds, revises, or expands goals for water, fleet, waste reduction, new building design, regional planning, and sustainable purchasing. Finally, it includes a mandate for an agency Strategic Sustainability Performance Plan that outlines the policies, programs, and mitigation strategies each agency will use to comply with the Executive Orders.

Section 2 of EO 13514 stipulates the goals that Federal agencies must meet, all of which apply to the AFRH as an independent Federal Agency. The plan for capital improvements will focus on compliance with these Agency Goals:

- Section 2 (e)(ii-iii): Manage construction and demolition debris
- Section 2 (f): Advance regional and local integrated planning
- Section 2 (g): Implement high-performance sustainable Federal building design, construction, operation and management, maintenance, and deconstruction. This includes (1) ensuring facilities comply with the Guiding Principles, (2) pursuing cost-effective, innovative strategies, to minimize consumption of energy, water, and materials, (3) designing all new construction after 2020 to achieve zero-net-energy by 2030, and (4) Ensuring that rehabilitation of Federally owned historic buildings utilizes best practices and technologies in retrofitting to promote long-term viability of the buildings.
- Section 2 (h) practicing sustainable acquisition to ensure that new contract actions are energy efficient, water efficient, bio-based, environmentally preferable, non-ozone depleting, contain recycled content, or are non-toxic or less-toxic alternatives, where possible.

In addition to the above items in Section 2, which directly impact the capital planning process for AFRH, Section 8 mandates that the AFRH develop an Agency Strategic Sustainability Performance Plan covering the 10 years from FY 2011 - 2021. The plan must state how the Agency will achieve all sustainability goals and targets in Section 2 of the document, and therefore will affect the implementation of many capital improvement projects at AFRH.

AFRH has taken several actions to lay the groundwork for near- and long-term environmental compliance and to integrate environmental considerations into the Capital Improvement Plan, including:

- Calculating an Agency-wide baseline for energy, water, waste, and greenhouse gas emissions against which future changes can be benchmarked and assessed.
- Developing systems to track and monitor trends in key environmental metrics over time, including building sub-meters and an environmental data tracking and analysis tool.
- Identifying and pursuing low-cost or no-cost opportunities to mitigate environmental impact, including small equipment upgrades, improved facility management, and resident and staff engagement around energy efficiency and conservation.
- Performing building energy audits and renewable energy opportunity assessments at both campuses to identify cost-effective capital project opportunities; prioritizing these opportunities according to cost, compliance, and technical considerations; and integrating select projects into the Capital Improvement Plan.
- Conducting an analysis of current and anticipated capital plans to determine their impact on key environmental metrics, then using these insights to inform goal-setting and help determine capital improvement priorities to ensure timely environmental compliance.
- Incorporating Leadership in Energy and Environmental Design (LEED), along with GSA and Federal Energy Management Program (FEMP), concepts and principles in the design of new buildings on both campuses.
- Formalizing the actions above into a Strategic Sustainability Performance Plan and providing annual environmental footprint reports to the Federal Energy Management Program.

### ***CARF/CCAC Quality Standards and Accreditation***

AFRH received a five-year Accreditation from CARF/CCAC in 2008 and must ensure that any capital improvement projects are consistent with their Quality Standards to maintain Accreditation. CARF is an independent, non-profit accrediting body whose mission is “to promote the quality, value, and optimal outcomes of services through a consultative accreditation process.” As part of maintaining its five-year Accreditation, the AFRH is subject to periodic inspections through CARF, during which the Agency and its facilities will be evaluated using the following Quality Standards: CARF compliance must be considered in the AFRH Master Capital Improvement Plan in two ways:

- The Agency must ensure that capital improvement projects are executed in a way that does not conflict with the CARF quality standards, and
- The AFRH should plan for capital improvement projects that illustrate its commitment to these standards.

### ***Americans with Disabilities Act (ADA, PL 101-336)***

President George H.W. Bush signed the ADA into law in 1990, and ADA Standards for Accessible Design have since been developed and enforced by the Department of Justice. The Standards, parts of Titles II and III Regulations (28 CFR Part 35 and 36), were published in 1991 and revised in 1994. New regulations were published in 2010; compliance with the new regulations is permitted as of September 15, 2010, but not required until March



15, 2012. When considering ADA Design Standards for AFRH capital improvement projects, it will be prudent to apply the 2010 Standards. Title II regulations are applicable to State and Local Government Facilities, and Title III standards apply to Public Accommodations and Commercial Facilities. 2004 ADAAG at 36 CFR Part 1191, appendices B and D, apply to both Title II and Title III facilities.

The purpose of ADA Standards for Accessible Design is to allow individuals with disabilities to access places of Local and State Government as well as public accommodations and commercial facilities. The guidelines are to be applied during the design, construction, and alteration of buildings that are subject to compliance to these regulations under the ADA of 1990. In new construction and alteration projects, these Standards take into consideration building access, path of travel, and accessible features (i.e., telephones, drinking fountains, restrooms, parking).

There are differences in guidelines for places of education, assembly areas, social service center establishments, medical care facilities, residential units for individual sale, detention and correctional facilities, professional offices, and shopping centers.

Exceptions to the Standards exist for issues of structural impracticability, historic preservation, and costs that would be disproportionate to the alteration being made. When exceptions are applicable to a new construction or alteration project, standards should be met to the greatest extent possible. Altogether, compliance with all of these Laws and Regulations will help the AFRH advance its cause in a responsible, cost-effective manner. Ultimately, the beneficiaries of this Agency's strong stewardship will be the Residents of today and tomorrow.



# TIMELINES

## AFRH-G Capital Improvement Timeline By Project Set

Project Set	2011	2012	2013-21
<b>Gulfport Facility and Chapel</b>	(Set Completed FY10)	(Set Completed FY10)	(Set Completed FY10)
<b>Environmental and Systems</b>		Interior and Exterior LEED Signage Loading Dock Hydralift System RV Charging Pole	(Efficiency and Renewable Energy Projects, as funded/possible)
<b>Safety and Security</b>	Business Center Build-Out Repeaters for Cell Phones Garage Card Entry	Automatic Door Openers Parking Garage Signage Sound Attenuation System for Admin Offices Exterior Security Camera System Loading Dock Video/Voice Monitor System Pedestrian Bridge to Generator Platform Safe Corners on Dining Hall Columns Resident Bathroom Mirror Corner Protection Additional Perimeter Fencing Reconfiguration at Main Entrance	
<b>Outdoor and Activity Programming</b>	Fiddlers Green Door Covered Outdoor Smoking Area	Master Landscape Plan Hall of Honors Alterations Additional Exterior 120Volt Receptacles Exterior Double Door Modification Senior TV Raised Garden Boxes	(Conceptual Projects Included in the Master Landscape Plan, as possible)







*Inspiring*  
**INDEPENDENCE**



**VOLUME II:**  
**The AFRH-G Capital Improvement Plan**  
**FY2011-21**  
**(FY2012 Update)**

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# INTRODUCTION



The AFRH-Gulfport (AFRH-G) is a picturesque, 47-acre campus resting on the coast of the Mississippi Sound in historic Gulfport, MS. It provides residential and health services to a community of approximately 511 seniors – a little over 50% of the total number of Residents at AFRH. With capacity for 584 seniors, AFRH-G can accommodate about the same number of Residents as the Washington campus. The population is made up of men and women from all five branches of the US military, including veterans who served in war theaters from World War II to Grenada.

In 2005, Hurricane Katrina slammed the Gulfport facility, and the 1970s-era residential tower that occupied this site suffered severe water damage, which necessitated its demolition. By 2007, plans for a new AFRH-G were approved with the steadfast support of Congress. During construction of the new facility, the AFRH implemented progressive practices in environmental design, adopted the latest advances in green technology, and embodied the Aging in Place philosophy of senior care. Management opened the doors of a brand new facility at AFRH-G in October 2010. Local dignitaries and members of Congress welcomed both new and returning Residents.

The new AFRH-G presents fewer needs for improvement than the aging campus in Washington. There are, however, opportunities for capital improvement projects based on suggestions from Gulfport Residents, the Agency's evolving vision and philosophies, and the final steps for completion of a new facility that fully serves AFRH-G Residents and personnel. Hence, the AFRH-G Capital Improvement Plan (CIP) is part of the comprehensive AFRH CIP. The ten-year Capital Improvement Plan for the Agency was first drafted in FY2011, and is updated annually to reflect progress at AFRH as well as modifications to the Plan. This FY2012 edition of the AFRH CIP for Gulfport presents 26 projects that address campus needs and the overall vision for the campus through FY21. These projects will be funded through either the Agency's annual capital improvement budget or its operations and management budget.

The AFRH-G CIP has six sections:

1. **AFRH-G Background and Campus Context:** a background to the Gulfport campus, including the history of the Home and the appeal of the campus to existing and potential Residents
2. **AFRH-G Capital Improvement Plan Methodology:** a description of the scope of the Plan and the methods used in the planning process
3. **AFRH-G Capital Improvement Projects:** descriptions of 26 proposed capital improvement projects
4. **AFRH-G Capital Improvement Project Objectives:** a summary of the needs and requirements addressed by the capital improvement projects
5. **AFRH-G Capital Improvement Timeline:** a timeline of capital improvement projects based on budget and priorities through FY21
6. **Appendices**

# GULFPORT CAMPUS CONTEXT

## AFRH-G History

### *Mapping a Safe Haven*

Two centuries ago, the leaders of our young nation made a Promise to care for its aging and infirm retired military personnel. This pledge would serve as a repayment to soldiers for risking their lives to preserve liberty. In 1811, Congress fulfilled this Promise by passing legislation that would create a home in Philadelphia for destitute Navy officers, sailors and Marines.



*Artist's rendering of Biddle Hall (original Naval Asylum, Philadelphia)*

the care of it. In 1880, the Naval Asylum was renamed the Naval Home.

### *Evolution*

In the late 1960s, it was determined the Naval Home was in dire need of modernization and expansion, and the most cost-effective solution would be to relocate. The site that was selected for the new Home rested on the shores of the Mississippi Sound in Gulfport, MS. The new Naval Home was opened in 1976 and housed 609 Residents in an 11-story tower on the site of the former Gulf Coast Military Academy. It became AFRH-Gulfport in 1992 when Congress merged the Naval Home with the Soldiers' Home in Washington into a single Agency: the AFRH.

In August 2005, Hurricane Katrina slammed the Gulf Coast, destroying AFRH-G. Almost immediately, all Residents were safely evacuated and about 350 moved temporarily to AFRH-W. The damaged AFRH-G was officially closed in 2006, and the main tower was demolished in 2008.

Through funds generously provided by the US Congress, management rebuilt a modern facility designed with the latest trends in environmental design, the newest advances in green technology, and construction capable of mitigating the effects of a Category 5 hurricane. The new AFRH-G officially opened its doors at a special event in October 2010 called "Glory on the Gulf". Management and local dignitaries welcomed home new and returning Residents with open arms. Now, new Residents are writing a brand new chapter in this Home's storied history.

The Naval Home charter aimed "to provide a permanent asylum for decrepit and disabled naval officers, seamen, and Marines." A 24-acre site located in Philadelphia known as "The Plantation" was purchased from the noted Pemberton family for \$16,352 with money from the Hospital Fund (the William Penn family owned this land originally). The corner stone of the first building, Biddle Hall, was laid in 1827, and the Naval Asylum officially opened in 1834.

Navy personnel who were "so injured or infirmed as to be unable to contribute materially to their own support" were allowed to live at the Home and were asked, "to labor as much as they were able" toward



## AFRH-G Community Profile

Located on the coast of the Gulf of Mexico, the 47-acre AFRH-Gulfport community provides a scenic retreat with waterfront views, beautiful sunrises, and warm weather. AFRH-G offers veterans a modern facility in a relaxed southern setting.

Each Resident is provided with his or her own room and a private balcony overlooking the Gulf. Residents can also participate in a wide range of activities right on campus, including bowling, bocce, fitness classes, arts & crafts, and swimming in the outdoor pool.

Residents can also use the newly constructed pedestrian bridge to walk straight from the campus to the nearby sandy beach to fish, walk, bike ride, and relax by the water. An 18-hole golf course is located adjacent to the Home, providing Residents with yet another inviting activity to enjoy the warm Gulf breezes.

The proximity to the charming town of Gulfport, neighboring Biloxi, and nearby New Orleans gives Residents even more access to exciting casinos, boutique shops, great restaurants, and fun daytrips.

Most of all, AFRH-G offers Residents a lovely and comfortable setting in which they can age in place. Private Resident rooms are located steps away from the dining hall, library, computer center, theater, hobby shops, bowling center, mail room, chapels, and PX.

The friendly and professional staff of AFRH-G provides Residents with five levels of care: Independent Living, Independent Living Plus Pilot Program, Assisted Living, Memory Support, and Long Term Care. General health and wellness services include dental, podiatry, and vision programs, as well as urology, psychiatry, internal medicine, and COPD. AFRH-G has achieved CARF accreditation as a CCRC (Continuing Care Retirement Community).

AFRH-G has, like AFRH-W, implemented the philosophy of Person-centered Care in every aspect of Resident and health services. Staff members identify and consider the needs of each Resident, recognizing that they are active participants in guiding and charting their own lives.

Each Resident is treated with dignity and respect and is encouraged to exercise choice, self-determination, and purposeful living within the support structure of a caring environment.



*Tranquil view of the Mississippi Gulf Coast across the road from AFRH-G*

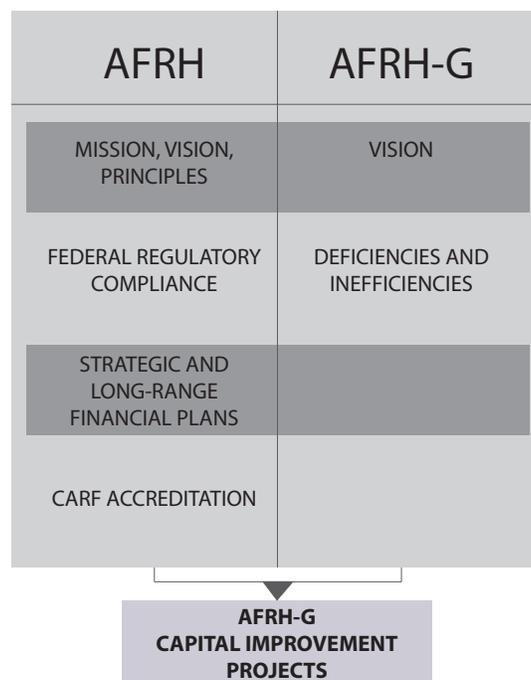
# METHODOLOGY



## Project Identification

To develop the AFRH-G Capital Improvement Plan, management first identified capital improvement projects that would address the needs and goals of both the Agency and the Gulfport campus. The AFRH evaluated the needs related to fulfilling the vision for AFRH-G and addressing any AFRH-G operational deficiencies and inefficiencies. Then, discrete capital improvement projects that would address those needs were identified.

At the Agency level, each capital improvement project identified for the AFRH-G will both reinforce and be consistent with the AFRH Mission, Vision, and Principles, relevant Federal regulations, standards and guidelines of the Commission on Accreditation of Rehabilitation Facilities / Continuing Care Accreditation Commission (CARF / CCAC), as well as Agency plans (Strategic, Business, and Long Range Financial Plans).



## PROJECT DEFINITION

The scope of each capital improvement project was based on campus and Agency needs, visions, and the various types of compliance relevant to the Gulfport campus.

Areas of project compliance include:

- **The AFRH Mission, Vision, and Guiding Principles:** All capital improvement projects at AFRH-G must be consistent with and in furtherance of the Agency's Mission, Vision, and Guiding Principles
- **CARF Accreditation:** The AFRH received a five-year accreditation from the Commission on Accreditation of Rehabilitation Facilities-Continuing Care Accreditation Commission (CARF-CCAC) in 2008 for the Washington campus and has since also received accreditation for AFRH-G. The Agency must ensure that all capital improvement projects at AFRH-G are consistent with the Quality Standards set by CARF-CCAC
- **National Environmental Protection Act:** To comply with the National Environmental Protection Act (NEPA), every capital improvement project at AFRH-G must include consideration and analysis of its impacts on the environment, as well as on the relationship of people with the environment. Specifically, each project must comply with the AFRH NEPA compliance policies established in 38 CFR Part 200 in November 2009
- **National Historic Preservation Act:** Because the AFRH is a Federal Agency, it must comply with the National Historic Preservation Act of 1966, as amended (NHPA) and its associated regulations and guidelines. Currently, the chapel is the only potential historic resource at AFRH-G, and a Preservation Plan for the chapel was developed and implemented as part of the reconstruction of the AFRH-G campus
- **Executive Order 13423:** AFRH-G capital improvement projects that have an environmental impact through use and management of energy will be subject to Executive Order 13423. The AFRH as a Federal Agency must comply with the entirety of the Executive Order; capital improvement planning should take this into account for projects that involve new construction and renovation, or that have the potential to reduce greenhouse gas emissions and water consumption intensity
- **Executive Order 13514:** The AFRH must comply with Executive Order 13514 to exhibit leadership in environmental, energy and economic performance in its capital improvement projects. As an expansion of Executive Order 13423, this Order places more specific requirements and target dates for compliance. AFRH must also consider the US Green Building Council's standards for achieving and maintaining the LEED Gold certification of the Gulfport facility.
- **The Health Insurance Portability and Accountability Act:** Since the AFRH provides Resident healthcare services, it must comply with the Health Insurance Portability and Accountability Act of 1996 (HIPAA). Capital improvement projects will be subject to compliance with both the Privacy and Security Rules under HIPAA
- **The Americans with Disabilities Act:** The AFRH must comply with the Americans with Disabilities Act (ADA) to ensure that all facilities at AFRH-G are safe and accessible for Residents, staff, and visitors of all abilities

See Appendix A for detailed information about each area of compliance.

## Project Objectives

- **Safety and Security:** the project addresses a security / safety concern or deficiency at AFRH-G
- **Resident Priority:** projects must address specific concerns / wants / needs voiced by Residents
- **Compliance:** the project addresses the Agency's need to comply with regulations, standards, and guidelines that are relevant to its operation as a Federal Agency and a CARF-accredited Continuing Care Retirement Community (CCRC)
- **Financial Impact:** projects must result in a short- or long-term cost avoidance or potentially bring in additional income for the Agency
- **Agency / Campus Image:** the project positively affects how AFRH-G is perceived by potential Residents, the surrounding community, the Department of Defense, and Congress



## AFRH-G Project Sets

The AFRH is planning 26 discrete capital improvement projects in Gulfport. These projects have been identified in an assessment of the Agency's long-term financial and operational objectives, as well as the overall vision for the Gulfport campus. These projects are grouped into four distinct categories or "Sets":

- **The New Gulfport Facility and Chapel:** this includes key projects necessary to revitalize the devastated Gulfport facility with a new modern building and rehabilitated historic Chapel
- **Environmental and Systems:** projects necessary to improve the energy and functional efficiency of the infrastructure and facilities at AFRH-G, as well as to meet the Agency's goals under Executive Orders 13423 and 13514
- **Safety and Security:** projects necessary to enhance Person-centered Care, ensure a safe and secure environment, and meet standards and requirements associated with CARF and ADA
- **Outdoor and Activity Programming:** various projects that enhance and increase the activities programming and outdoor amenities for Residents of the AFRH-G, including a comprehensive program of landscape improvements from the AFRH-G Master Landscape Plan.

## Project Facts

Each individual project features a summary of the description and necessity of each project, plus easily accessible information on the project status. Specifically this information includes:

- **Description:** a description of the project's scope, including design where applicable
- **Necessity:** a summary of the project need, relative to the AFRH Mission, Vision, and Guiding Principles, as well as to the various regulations, standards, and guidelines that impact the Agency
- **Lead:** identification of the party in charge of determining the project scope and design (the AFRH, AFRH-Washington, or AFRH-Gulfport)
- **Manager:** identification of the party in charge of managing project construction (Office of Campus Operations, General Services Administration (GSA), etc.)
- **Location:** a description of where the project will take place and what buildings will be affected
- **Status:** the AFRH fiscal year in which the project will begin. A range of fiscal years has been identified for projects that will be completed in phases

# CAPITAL IMPROVEMENT PROJECTS

## PROJECT SET: AFRH-G FACILITY AND CHAPEL

These projects are part of the AFRH effort to replace the former facility that was destroyed by Hurricane Katrina and to rehabilitate the historic Chapel that still stands. Adopting the Aging in Place and Person-Centered Care philosophies called for a facility that could provide different levels of care and support to address Residents' personal needs. The new AFRH-G satisfies the various medical and accessibility needs of a new generation of veterans. Further, the new facility was designed to maximize energy-efficiency, meet current building codes, and reflect the latest standards and practices in senior housing and healthcare. Throughout the design / build process management regularly conducted focus groups to ensure Resident participation and input.

Operational and Design Objectives, as identified by the AFRH management and Residents:

- Consistency with contemporary philosophies in senior living, particularly the concept of "small house" design for skilled Memory Support and Long Term Care
- Enhanced programmatic and spatial adjacencies to facilitate a more unified residential community and to create ease of mobility from room to room, rooms to commons, and within the commons area itself
- Increase energy and operational efficiency—including reduced energy consumption, water consumption, and greenhouse gas emissions per square foot—and contribute to the Agency's compliance with requirements under EO 13423 and EO 13514.
- Complex building infrastructure systems required for modern medical and residential needs
- Efficient and modern common spaces that accommodate the needs of all Residents
- Application of modern gerontological design principles to support physical, sensory, and cognitive challenges faced by Residents, and
- In-house healthcare that promotes and delivers on the concept of Aging in Place

The project also included implementation of a preservation plan for the AFRH-G Chapel, the only potentially historic building on the entire Gulfport campus. The Chapel has withstood numerous storms, including two hurricanes, and it was the only intact structure at AFRH-G after Hurricane Katrina. The history of the Chapel spans 76 years and represents two significant institutions: the Gulf Coast Military Academy and AFRH-G.

This project Set includes two discrete capital improvement projects:

1. Gulfport Facility (Including the Pedestrian Overpass)
2. Historic Gulfport Chapel



# GULFPORT FACILITY (GSA-MANAGED)



*Reflecting pool at AFRH-G*



*Swimming pool at AFRH-G*

Project

**Description:**

The new building includes Resident rooms, a Health Center, a Wellness Center, arts and crafts shops, a cafeteria, and recreational areas. The new community features efficient and modern workspaces for all AFRH-G staff and administration. Plus, AFRH-G also includes a Hall of Honors, a comfortable and symbolic space located prominently off the first floor lobby. The building also houses amenity and support spaces collectively known as “the Commons,” which create a center of activity for the entire AFRH-G community. The Commons provides a place where Residents come together for socializing, physical fitness, educational pursuits, musical interests, and recreational activities, as well as a central dining hall where most Residents dine three times a day.

The new residences are consistent with current standards for senior living, namely the “small house” philosophy where rooms are clustered in groups around common living and dining spaces. The Wellness Center addresses Residents’ primary medical needs, ranging from dental to psychological. The Health Center provides skilled nursing for Residents in Long Term Care and Memory Support.

Finally, the Gulfport facility includes a new pedestrian overpass bridge that connects the Home to the beach. This walkway traverses Highway 90 allowing Residents to cross from the safety of the Home to the beach without traffic interference. The overpass was built to accommodate Residents with accessibility needs, as well as to make the scenic waterfront more available to all Residents.

**Necessity:**

- The previous Gulfport facility was destroyed by Hurricane Katrina in 2005, and a new facility was required to restore the AFRH-G community and the Gulfport branch of the AFRH
- The new facility allows the AFRH to implement modern philosophies in senior care, including Person-centered Care and Aging in Place
- The new facility meets the U.S. Green Building Council’s LEED Gold standards. This is both an important part of the Agency’s compliance with green building requirements under EO 13423 and EO 13514, as well as an opportunity to reduce overall environmental impact while cutting operating costs

<b>Lead:</b>	<b>AFRH-GULFPORT</b>	<b>Begins:</b>	<b>FY08-10</b>
<b>Manager:</b>	<b>GSA</b>	<b>Status:</b>	<b>COMPLETED</b>
<b>Location:</b>	<b>AFRH-G CAMPUS</b>		

# GULFPORT CHAPEL (GSA-MANAGED)

Project



Exterior of the historic AFRH-G Chapel



Chapel interior

**Description:**

The project to rebuild and revitalize AFRH-G included the rehabilitation of the historic Chapel for continued use by Residents. Prior to rehabilitation, the AFRH completed a Preservation Plan for the Chapel to identify the building’s historic character-defining features, its volumetric characteristics, materials, and details.

This Plan also includes documentation of the damage caused by Hurricane Katrina, including the condition of the building’s structure, existing roofing system, and the characteristics of historic materials to be preserved and/or replaced. A scope of improvements was completed for the ongoing use of the building as a Chapel and Resident activity space.

**Necessity:**

- The previous Gulfport facility was destroyed by Hurricane Katrina in 2005, and the rehabilitation of the only remaining structure was necessary to restore the AFRH-G community and the Gulfport branch of the AFRH
- The Chapel is the only potentially historic building on the campus, and its preservation is important to the culture of AFRH-G

**Lead:** AFRH-AGENCY

**Manager:** GSA

**Location:** AFRH-G CAMPUS

**Begins:** FY08-10

**Status:** COMPLETED

# PROJECT SET: ENVIRONMENTAL AND SYSTEMS

The Environmental and Systems capital improvement projects are part of the Agency's effort to measure, report, and reduce energy and water consumption, waste generation, and greenhouse gas (GHG) emissions while improving operational efficiency. This effort has become a core component of Agency operations in response to the 2007 signing of Executive Order (EO) 13423: Strengthening Federal Environmental, Energy, and Transportation Management, as well as the 2009 signing of EO 13514: Federal Leadership in Environmental, Energy, and Economic Performance.

These Executive Orders require the implementation of a wide range of sustainable practices for all Federal agencies. Executive Order 13423 directs agencies to improve energy efficiency; use renewable energy sources; reduce water consumption intensity; use sustainable environmental practices in acquisitions of goods and services; reduce pollution and use recycling programs; ensure sustainable design and high-performance buildings; ensure sustainable practices in operations of motor vehicles; and to ensure proper electronics stewardship. Executive Order 13514 expands and deepens these provisions, adding a requirement that agencies develop a greenhouse gas (GHG) inventory and take steps to reduce their GHG emissions.

AFRH is pursuing opportunities to mitigate its environmental impact in response to these Executive Orders. As part of this effort, AFRH has identified capital improvement projects that will promote operational efficiency and sustainability. Building energy audits and renewable energy opportunity assessments have been completed at both campuses to identify cost-effective energy efficiency, water efficiency, and renewable/alternative energy project opportunities. AFRH has prioritized these opportunities according to cost, compliance, and technical considerations and has integrated select projects into the Capital Improvement Plan. Environmental and Systems projects will also benefit the Agency by reducing its long-term utility expenses. They will help to mitigate rising electricity, fuel, and water prices, which represent a substantial and increasing burden on AFRH's operating costs.

The AFRH-Gulfport facility has already demonstrated leadership in environmentally friendly and efficient design with the attainment of LEED Gold certification. However, the Agency has identified several additional projects to further reduce the facility's operating expenses and environmental impact, continuing the Agency's growing tradition of innovation and leadership in sustainable building, operations, and maintenance.

The following planned CIP projects each have a key environmental or energy component and respond to goals and standards set forth in Executive Orders 13423 and 13514:

1. Interior and Exterior LEED Signage
2. Loading Dock Hydralift System
3. RV Charging Pole



*Sink Aerator*



*Microturbine*



*Fuel Cell*

## Environmental and Systems Projects Considerations:

### Funding and Additional Projects

In addition to the broad range of Environmental and Systems projects that AFRH will implement as part of the CIP, the agency will also consider other potential improvements to meet its long-term goals and milestones related to Executive Orders 13423 and 13514. These projects will further reduce the agency's utility and operational expenses and demonstrate the agency's commitment to efficiency and sustainability.

Due to the high initial capital investments that many energy-efficiency projects demand, AFRH cannot plan for all of its intended improvements within the bounds of its annual capital resources. AFRH remains dedicated to meeting its goals under EO 13423 and 13514, and plans to explore third-party financing options for energy efficiency and renewable energy projects in the Capital Improvement Plan.

There are two financing options that appear to be the most compatible with AFRH's operations:

- **Energy Service Performance Contracts (ESPC):** Under an ESPC, an energy services company (ESCO) would incur the costs of implementing energy efficiency and renewable energy projects at AFRH. The ESCO would arrange to provide the project capital through third-party financial institutions. AFRH would pay an agreed-upon portion of all measured and verified energy cost savings to the ESCO while keeping the rest of the savings for itself. This "shared savings" structure ensures that payments to the ESCO would never exceed actual savings in a given year.

As a federal agency, AFRH would be able to take advantage of the Department of Energy's Federal Energy Management Program's (FEMP) ESPC guidance and support. This is a free service the DOE provides to help Federal agencies develop ESPC projects that are technically, legally, and financially sound.

The screening and preparation process for hiring an ESCO can take from a few months to more than a year, as can project development after the contract has been awarded. Contracts undertaken through the DOE ESPC program can have a maximum duration of up to 25 years, and operations and maintenance of energy efficiency and renewable energy projects are typically covered by the ESCO. Because of the uncertainty surrounding the schedule of an ESPC, the projects listed on the following page are considered to be at the concept level, and have not been incorporated into the timeline of CIP projects.

- **Utility Energy Service Contract (UESC):** Under an UESC, AFRH would partner with its local utilities (Mississippi Power in Gulfport and Pepco in Washington), rather than an ESCO, to finance energy efficiency and renewable energy projects. The utility would provide energy and water efficiency improvements, demand side management improvements, and possibly renewable energy generation. The project financing and repayment process is similar to that under an ESPC, and utilities often subcontract to ESCOs under an UESC. Utilities companies, however, may be able to offer better financing, easier grid connectivity, and the ease of partnering with a utility with whom AFRH already has an established relationship.

The ESPC and UESC structures are most likely the avenues that AFRH will pursue, but there are two additional third-party financing strategies under consideration:

- **Energy Service Agreements (ESA):** An ESA adds an additional layer to the ESPC model. Under an ESA, an investment fund would serve as a point of contact with AFRH and manage the process of hiring an ESCO. The ESCO would then establish an ESPC with AFRH to finance energy efficiency and renewable energy projects to be funded by the investment fund.
- **Power Purchase Agreement (PPA):** Under a PPA, a provider would finance and install renewable electricity generation capacity on-site at AFRH, then sell the green electricity produced by these technologies to AFRH at a prefixed price. However, the PPA model is not applicable to energy efficiency projects and is typically used to finance larger-scale renewable energy projects (i.e. above 500kw).

AFRH will implement these projects to the extent possible during the timeline of this Capital Improvement Plan through the funding options described on the previous page:

<p><b>Interior Lighting Upgrade</b></p>	<p>AFRH will upgrade the lighting in the Gulfport facility to improve energy efficiency. As bulbs in the Gulfport facility require replacement over the next few years, AFRH will replace them with newer, more efficient LED bulbs. In 2014, all remaining bulbs in the facility will also be replaced with LED bulbs. These bulbs produce the same amount of light for less electricity, have longer lifetimes, and are more reliable than incandescent and compact fluorescent bulbs. AFRH will take steps to ensure that lighting upgrades do not negatively impact lighting hue and meet requirements for safe light levels for retirement communities.</p>
<p><b>Rooftop Solar Thermal or Photovoltaic</b></p>	<p>AFRH will consider installing a solar water heating system (SWH) or solar photovoltaic (PV) panels on the roof of Towers A, B, and C, to generate hot water and/or electricity. SWH and solar PV are not mutually exclusive because they use the same space; as such, AFRH will consider systems marketed that generate both, if feasible. AFRH will consider two solar PV technologies; crystalline silicon (silicon) PV and amorphous crystalline (thin-film) PV. While the thin-film technology is less efficient, it is mounted directly to the roof eliminating risk of wind-damage.</p>
<p><b>Solar Photovoltaic Parking Shelters</b></p>	<p>AFRH will consider the installation of solar Photovoltaic (PV) panels in the employee and RV parking lots in an elevated structure (“canopy”) above parked cars. Canopies will be designed to minimize (or completely avoid) loss of parking spaces, allowing continued use of the parking lot while generating renewable electricity from the solar PV panels. Additionally, the canopies will provide a benefit of shading to the parked cars, reducing the need for A/C to cool down cars in the hotter months. This installation would have approximately 200kWDC rated capacity with an annual energy production of approximately 280,000AC kWh/yr.</p>
<p><b>Vending Machine Controls</b></p>	<p>AFRH will consider installing controls to improve the energy efficiency and lifespan of its vending machines throughout the Gulfport campus. Vending machines are very energy intensive and usually operate at full capacity even when they are not in use. These controls detect motion at the vending machines, turning off lighting and managing compressor cooling cycles when they are not needed.</p>
<p><b>Interior Lighting Controls</b></p>	<p>AFRH will consider installation of photosensors and occupancy sensors in key areas of the Gulfport facility to improve lighting energy efficiency. In some locations, sunlight from skylights or windows is sufficient to displace electrical lighting. Photosensors may be installed on lighting in these areas to ensure that lights only turn on when needed. In low-traffic areas such as trash rooms and laundry rooms, occupancy sensors would minimize the time that lights are on but not in use, while ensuring safety. AFRH will also consider combined photo/occupancy sensors where appropriate. AFRH will ensure that these controls meet requirements for safe light levels for retirement communities.</p>
<p><b>Parking Garage Lighting Upgrade and Controls</b></p>	<p>AFRH will consider upgrading light bulbs and install lighting controls in the Gulfport facility parking garage to improve energy efficiency. The current high-pressure sodium lights are turned on 24 hours per day, though daylight is often sufficient. AFRH will consider three options to</p>

<b>Parking Garage Lighting Upgrade and Controls (cont'd)</b>	<p>improve lighting efficiency: 1) keep existing lights but place some on a time to coincide with day/night cycles, 2) add compact fluorescent or T8 lights in the inner portion of the garage and turn off the more energy-intensive high-pressure sodium lights during the day, or 3) replace existing lights with T8 lights equipped with photosensors or timers throughout the garage. AFRH will take steps to ensure that these controls meet requirements for safe light levels for retirement communities.</p>
<b>Water Efficiency and Convenience Improvements</b>	<p>AFRH will consider upgrading sink aerators and toilets in Gulfport to improve efficiency and convenience for staff and residents. Existing 1.5 gallon-per-minute sink aerator would be replaced with more efficient 0.5 gallon-per-minute aerators. AFRH will also consider replacing existing low-flow toilets with an alternative model to avoid convenience issues experienced by residents using the current model.</p>
<b>Server Consolidation</b>	<p>AFRH will consider consolidating servers into a single server room to improve energy efficiency and reduce maintenance cost. Currently, servers at Gulfport are located in three separate server rooms, each of which is climate controlled and has excess space. Consolidating these servers into a single room would allow a single HVAC unit to handle all servers simultaneously.</p>
<b>Fuel Cell or Microturbine Units</b>	<p>AFRH will consider installing fuel cell or microturbine units to generate electricity for the Gulfport facility. AFRH will also consider combined heat and power (CHP) systems to capture waste heat from these units, displacing some natural gas combustion in the facilities' existing boilers at low additional cost. Currently the electricity used at the Gulfport campus is a major source of greenhouse gas emissions for AFRH, due to the high carbon intensity of the fuel mix used in Mississippi. Gulfport is also vulnerable to electricity losses from natural disasters and other disruptions in the Gulf Coast. Fuel Cells or Microturbine units would both reduce the overall greenhouse gas emissions from the facility and serve as an emergency electricity generation backup to supplement the diesel generators already in place. Fuel cells produce electricity through a chemical reaction powered by hydrogen from reformed natural gas, whereas microturbines are packaged power generation units with a single high-speed turbine fueled by the combustion of natural gas or propane; both operate efficiently, independent from the electricity grid.</p>
<b>Rooftop Wind Turbines</b>	<p>In order to capture valuable wind resources, AFRH will consider installing parapet or vertical axis wind turbines on the roof of each of the three taller towers (A, B, and C). The location of the AFRH-Gulfport facility has a reasonable wind resource (wind speed). While the site is not suitable for installation of a large wind turbine due to the overall size of the property and setback requirements, smaller wind turbines installed on the roof (e.g., vertical axis turbines) or the edge of the roof (parapet wind turbines) are suitable at this site. These make use of the wind compression that occurs as wind hits the side of a building and is forced upwards.</p>

## INTERIOR AND EXTERIOR LEED SIGNAGE (GSA-MANAGED)

### Description:

AFRH will add signage both inside and outside the LEED Gold facility with information about the sustainable landscape and building design. Exterior signage will focus on the Wetlands area and the reforestation efforts in the northeast section of the campus. Interior signage will highlight the daily operational efficiencies achieved in the new facility.

Signs will be of various sizes and composition to withstand interior and or exterior environments. Interior signage will be approximately 23" x 23", and will match and complement existing signage. Signs will be able to withstand daily cleaning and graffiti removal without noticeable damage to surface area.

### Necessity:

- LEED Signage will educate AFRH residents, staff, and visitors, thus making everyone in the AFRH community a better steward of the sustainable campus in Gulfport.
- Informative signage related to the facility's LEED certification will help to solidify the agency's commitment to sustainable landscapes and building design.
- Providing LEED Signage is an efficient and cost-effective way to achieve and maintain LEED certification for the agency.



**Lead:** AFRH-GULFPORT

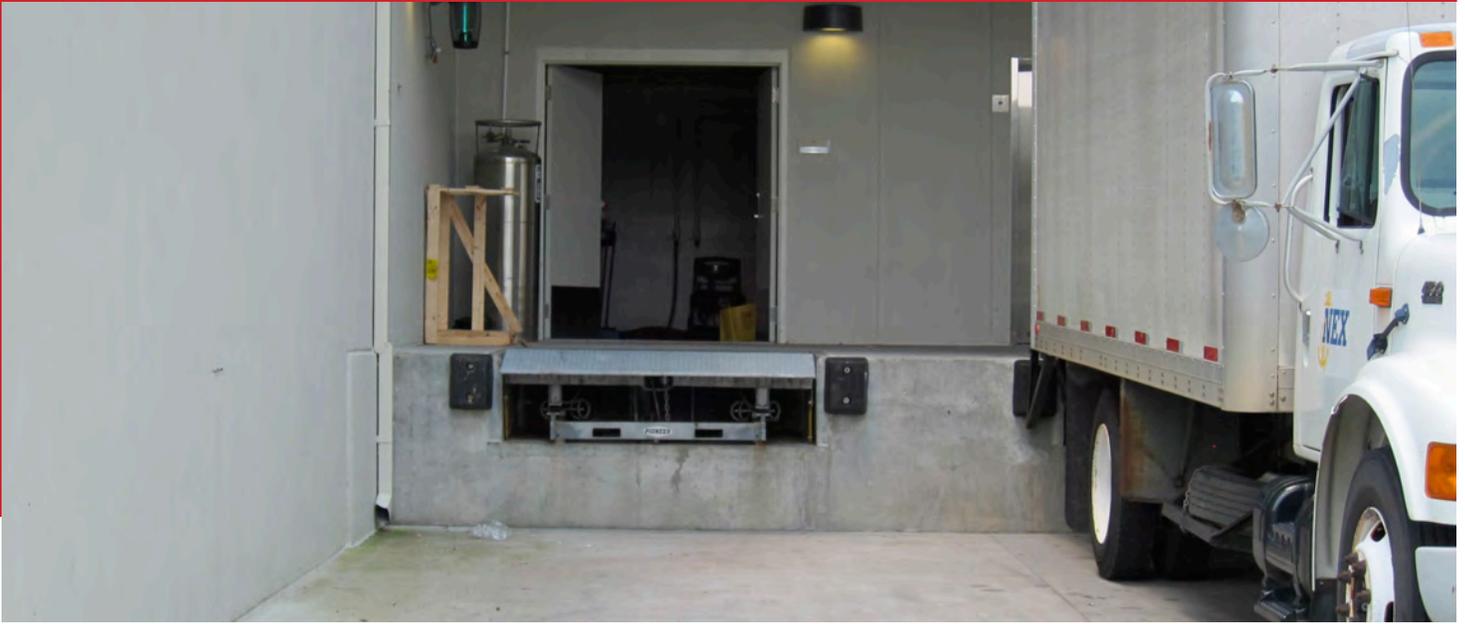
**Begins:** FY12

**Manager:** GSA

**Status:** IN PROGRESS

**Location:** THROUGHOUT AFRH-G CAMPUS

## LOADING DOCK HYDRALIFT SYSTEM (GSA-MANAGED)



*View of loading dock at east side of the AFRH-G facility*

### **Description:**

AFRH will install a Hydra Lift Platform system and electrical connections to power a new hydraulic lift at the loading dock, located on the east side of the facility. The lift will allow AFRH-G to receive deliveries from trucks at virtually any height between 8" and 60" and of weights up to 6000 lbs. The new system will be equipped with safety features to prevent free-fall, as well as removable components to provide added safety during use and maintenance service. The system control station will be housed in a remote cabinet within the loading dock area with restricted access to prevent any unauthorized use of the lift.

### **Necessity:**

- There is currently no standard size or height for trucks bringing deliveries to the loading dock; the lift will allow AFRH to better accommodate all deliveries
- The lift will improve operational efficiency at the loading dock

**Lead:** AFRH-GULFPORT

**Begins:** FY12

**Manager:** GSA

**Status:** IN PROGRESS

**Location:** LOADING DOCK, EAST SIDE OF MAIN FACILITY

## RV CHARGING POLE (GSA-MANAGED)



*View of the existing RV lot looking northwest*



*Example of charging pole*

### **Description:**

AFRH will provide an electrical hook-up in the recreation vehicle (RV) parking lot in the northwest corner of the AFRH-G campus. The electrical service will be connected to the line approximately 3' underground and will require trenching from the source to the pole. The hook-up will be installed and finished appropriately for outdoor use and will be waterproof.

The charging unit will provide a minimum of 50 amp service, and the agency will explore viable options for using solar panels to assist in power production for the charging pole.

### **Necessity:**

- The current RV lot has few existing amenities
- Residents have specifically requested a charging station for their RVs; responding to resident needs is consistent with the AFRH philosophy of Person-centered Care as well as with its CARF accreditation
- While small in scale, the use of solar power would be consistent with the Agency's compliance with EOs 13423 and 13514, as well as an opportunity to reduce overall environmental impact while cutting operating costs

**Lead:** AFRH-GULFPORT

**Begins:** FY12

**Manager:** GSA

**Status:** IN PROGRESS

**Location:** RV PARKING LOT AT NORTHWEST OF PROPERTY

# PROJECT SET: SAFETY AND SECURITY

Current and future Residents are at the heart of the AFRH Mission. Thus, the Agency has adopted the philosophy of Person-centered Care to better serve them. Special attention to Residents' needs – including their physical safety and security – defines many of the capital improvement projects for the AFRH.

Person-centered Care is also a key focus of CARF, which accredits the AFRH as a CCRC. The mission of CARF is to promote the quality, value and optimal outcomes of services that center on enhancing the lives of the persons served. A key core value at CARF is that "All people should have access to needed services that achieve optimal results", a belief also shared by the AFRH. To achieve this goal, the Agency has identified several projects that will enable Residents to benefit from a more supportive lifestyle and to more safely utilize the physical environment in which they reside.

Projects to enhance safety and security:

1. Automatic Door Openers
2. Business Center Build-Out
3. Card Entry for Garage
4. Parking Garage signage
5. Repeaters for Cell Phones
6. Sound Attenuation System for Administrative Offices
7. Reconfiguration at Main Entrance
8. Exterior Security Camera System
9. Additional Perimeter Fencing
10. Loading Dock Video/Voice Monitor/Elevator Control System
11. Pedestrian Bridge to Generator Platform
12. Safe Corners on Dining Hall Columns
13. Resident Bathroom Mirror Corner Protection



## AUTOMATIC DOOR OPENERS (GSA-MANAGED)

### Description:

AFRH will install electronic, ADA-compliant doors equipped with push button access. New door openers will be added in approximately 80 locations throughout the Gulfport facility and chapel. The following areas are among those that will receive improvements:

- Towers A, B, & C floors three through eight (36 openers)
- South facing exterior doors at first floor (11 openers)
- Library (2 openers)
- Theater (2 openers)
- Bowling Alley (2 openers)
- Main Street Community Room (2 openers)
- Main Street Bathroom (2 openers)
- Clinic Waiting Room Doors (2 openers)
- Clinic Restroom (2 openers)



*Automatic door openers will enhance accessibility*

### Necessity:

- Doors are difficult for Residents to open, especially those relying on wheelchairs & walkers
- Difficulty opening doors creates a safety hazard for Residents
- Enabling Residents of all ability levels to open and operate doors will support the Agency's goal of architectural accessibility, necessary for CARF accreditation

**Lead:** AFRH-GULFPORT

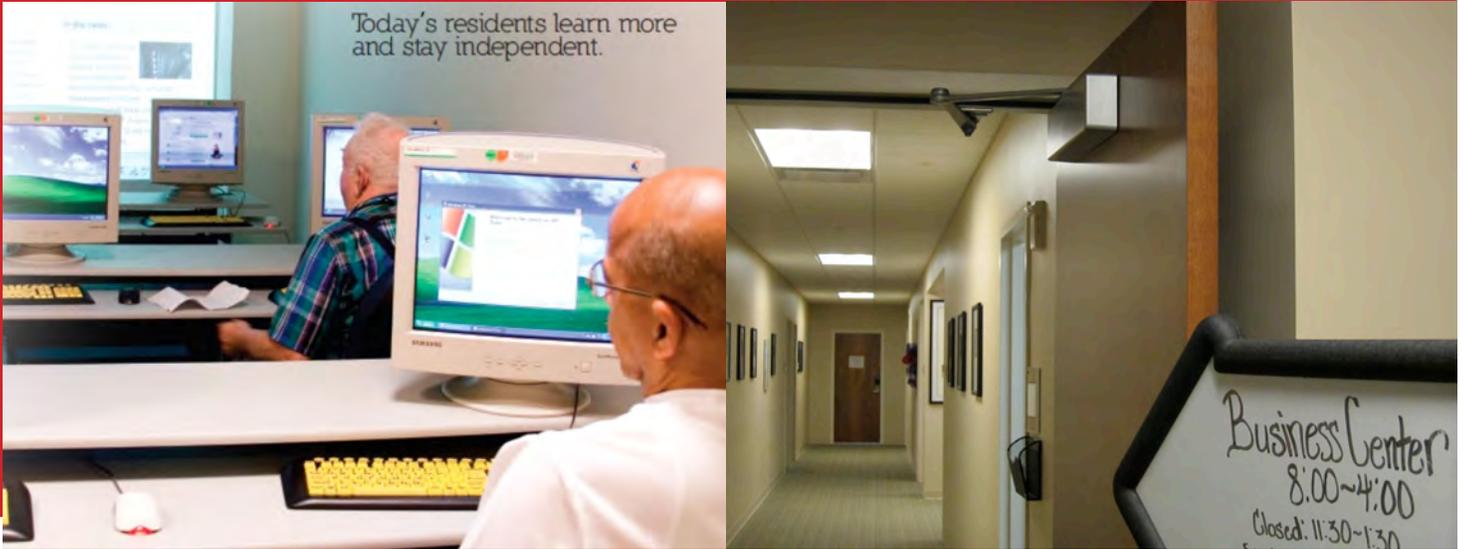
**Begins:** FY12

**Manager:** GSA

**Status:** IN PROGRESS

**Location:** VARIOUS LOCATIONS THROUGHOUT MAIN FACILITY AND CHAPEL

## BUSINESS CENTER BUILD-OUT



*The business center build-out was completed and now serves the AFRH-G community*

### **Description:**

The AFRH constructed a wall partition to separate the Business Center from the existing corridor that extended through and beyond the Center's space. The partition includes a door for secure access to the Business Center. Modifications to the space also included the relocation of the door to an adjacent office that previously opened into what is now the Business Center.

### **Necessity:**

- The Business Center was an open area with inadequate privacy to protect Resident confidentiality
- The issue of privacy is important for compliance with HIPAA regulations
- An invasion of privacy was often felt when third-party traffic passes through the Business Center during Residents / staff consultations. Creating a partition and discrete entry point reduces third-party traffic and helps secure Resident privacy
- CARF accreditation depends upon protecting the confidentiality & privacy of Resident information

**Lead:** AFRH-GULFPORT

**Begins:** FY11

**Manager:** OFFICE OF CAMPUS OPERATIONS

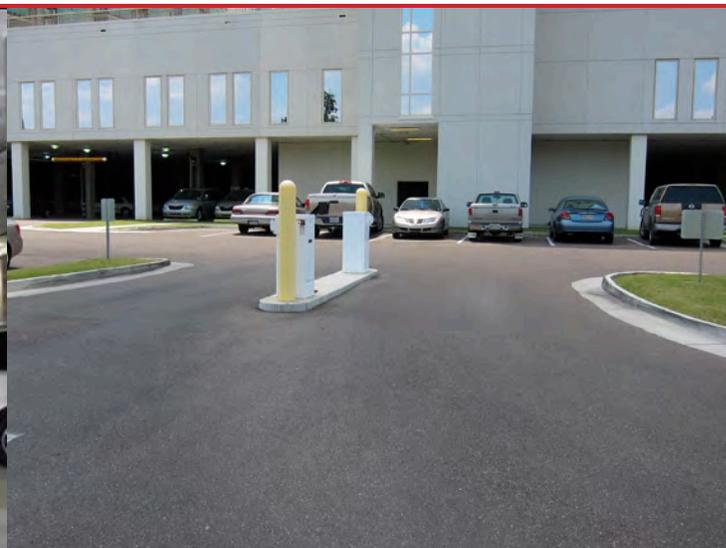
**Status:** COMPLETED

**Location:** MAIN FACILITY, NORTHWEST QUADRANT OF MAIN FLOOR

## CARD ENTRY FOR GARAGE (GSA-MANAGED)



*Parking garage at the ground level of AFRH-G*



*Parking garage entrance*

Project

### **Description:**

To enhance safety, the AFRH will provide a card entry point for access between the parking garage and the elevators to the main building. Card readers will be installed on each of the four elevator access entry doors located on the garage level.

### **Necessity:**

- There is an existing card entry point at the gate to the property, but once on the property, access to the parking garage and to the elevators into the main building is not secure
- Residents feel uncomfortable without controlled access to the main building from the parking garage
- This project will support the enhancement of safety and security of the Residents, as well promote environmental accessibility; both are goals set for Agency compliance to earn CARF accreditation

**Lead:** AFRH-GULFPORT

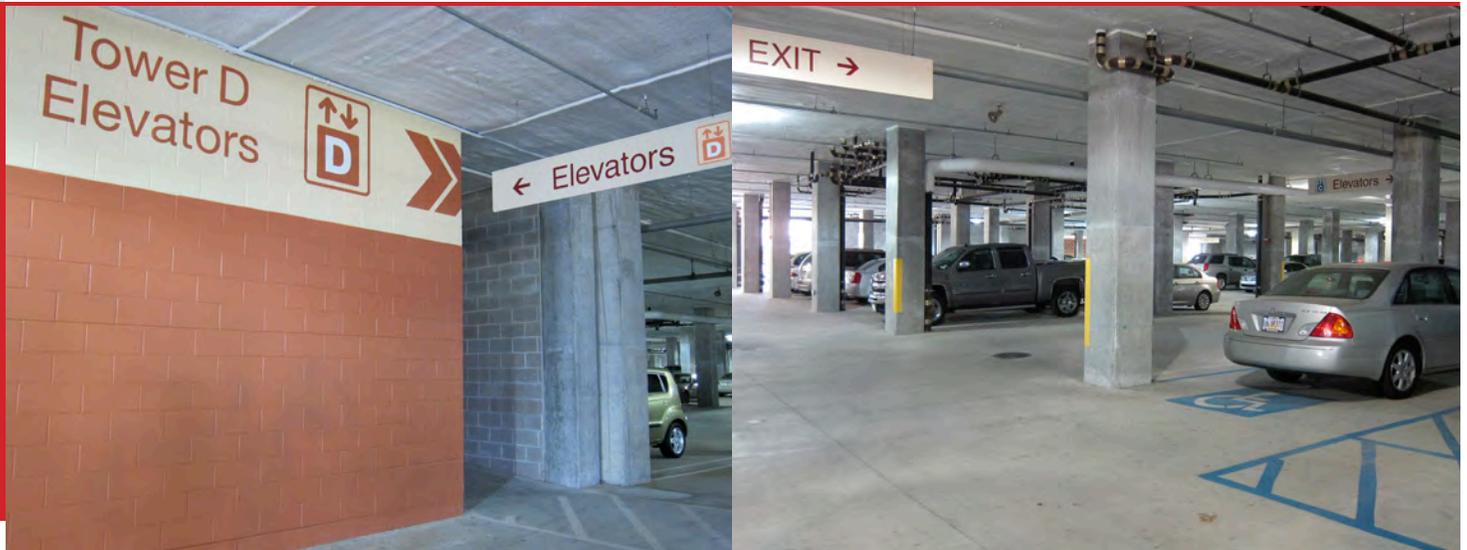
**Begins:** FY12

**Manager:** GSA

**Status:** IN PROGRESS

**Location:** PARKING GARAGE, BENEATH MAIN FACILITY

## PARKING GARAGE SIGNAGE (GSA-MANAGED)



*The parking garage columns will be painted to coordinate with the appropriate tower color*

### Description:

AFRH-G will restripe parking spaces within the garage and add color-coded paint to columns to improve way finding and safety for Residents, staff, and visitors.

Parking spaces will be restriped in reflective bright white paint, and a color-coded system will be painted on columns to differentiate parking areas and help Residents and visitors identify where their vehicles are parked. There is a color-coded system already in place to distinguish between elevator towers of the parking garage, and this color system will be applied to garage columns for clear and comprehensive memory aids. The colored paint will cover approximately four feet of the bottom of each column. The paint applied to columns will be suitable for exterior concrete surfaces, and will have reflective qualities to create visual contrast with the rest of the garage and reduce risk of drivers hitting columns with vehicles. All paint material will also be consistent with LEED requirements.

### Necessity:

- The current signage in the garage is a lettered system painted on elevator shafts, as well as "Exit" signs & "Wrong Way" signs; additional signage is needed for sufficient way finding
- Residents have trouble finding where their cars are parked; Residents and visitors have trouble seeing columns in their mirrors
- More garage organization will reduce driver confusion and create a safer environment
- Sand from the surrounding landscape and soil accumulates in the garage and attaches to tires, which wears away the parking space striping
- Improving signage and reducing vehicular speed both contribute to goals related to the AFRH CARF accreditation; these efforts promote environmental and transportation accessibility for Residents and staff plus increased safety at AFRH-G for Residents, personnel, and visitors

**Lead:** AFRH-GULFPORT

**Begins:** FY12

**Manager:** GSA

**Status:** IN PROGRESS

**Location:** PARKING GARAGE, BENEATH MAIN FACILITY

## REPEATERS FOR CELL PHONES



Project

### Description:

The AFRH installed repeaters to provide uninterrupted cell phone service inside the main building in Gulfport. The repeaters allow Residents, staff, and visitors to receive wireless signals from all major providers: AT&T, Sprint, T-Mobile, Verizon, and Alltel. Overall the system requires minimal maintenance, and the repeaters do not necessitate regularly scheduled calibrations.

### Necessity:

- Prior cell phone service was insufficient for Residents and staff
- Dropped calls and the inability to connect calls created a safety hazard for all occupants
- There are no house phones in individual Resident rooms, thus Residents must rely on cellular service for phone calls from their rooms
- Ensuring cell phone service for Residents addresses important safety issues and provide communications accessibility that is required for the Agency's CARF accreditation

**Lead:** AFRH-GULFPORT

**Begins:** FY11

**Manager:** OFFICE OF CAMPUS OPERATIONS

**Status:** COMPLETED

**Location:** MAIN FACILITY

## SOUND ATTENUATION SYSTEM FOR ADMINISTRATIVE OFFICES (GSA-MANAGED)

### Description:

AFRH will install a sound attenuation system to adequately ensure speech privacy of client, resident, and staff communication within office and conference room areas in the northwest section of the first floor of the facility. The system will cover all corridors, open halls, open gathering spaces, offices, conference rooms, and any other space with a return air vent.

The project will involve the installation of a speaker system to emit frequencies within the continuous space above the lowered ceilings. This frequency will mask the noise that currently is audible between administration offices. All door units will also receive floor sweeps and any necessary gaskets along door frames to eliminate any airspace that may exist between the frame and the door.



### Necessity:

- There is currently a cavity distribution system above the administration area, which allows sound to carry between administrative offices.
- Sound traveling between offices compromises the privacy of agency operations as well as clients and residents that share sensitive information in this area of the building.
- Improved privacy for staff and visitors to this area creates a more comforting and secure environment in which to live and work.

**Lead:** AFRH-GULFPORT

**Begins:** FY12

**Manager:** GSA

**Status:** IN PROGRESS

**Location:** MAIN FACILITY, NORTHWEST QUADRANT OF MAIN FLOOR

## RECONFIGURATION AT MAIN ENTRANCE (GSA-MANAGED)



*The crosswalk will be relocated north of the guard shack to improve safety at the entrance*

### Description:

AFRH will reconfigure the main entrance fencing and walking trail to move the pedestrian crosswalk from its current location. The new crosswalk will be located north of the guard shack to give drivers more time to observe and yield to pedestrians. Fencing will be added on either side of the entrance and in the grass; the new fencing will match the existing perimeter fence in style and will be between 48" and 56" high. The paved walking trail will be modified to connect to the new crosswalk location north of the guard shack, and the new crosswalk will be marked in reflective white paint. The old crosswalk will be painted over to blend into the existing asphalt.

Plantings will be added along both sides of the fence on the east and west sides of the guard shack. Plant varieties could include small maturing evergreen shrubs and perennials. Any other ground disturbance or areas of lawn that are removed will be re-landscaped in-kind.

### Necessity:

- The current location of the walking trail crosswalk, in the entrance driveway between the perimeter fence and the guard shack, is hazardous because it does not give drivers enough time to react to pedestrians in the crosswalk
- This project will support the enhancement of safety and security of the Residents, which is an important goal set for Agency compliance with its CARF accreditation
- The reconfiguration of the walking path and the new landscaping around the perimeter fencing will both contribute to the overall goals of the Master Landscape Plan for AFRH-G

**Lead:** AFRH-GULFPORT

**Begins:** FY12

**Manager:** GSA

**Status:** IN PROGRESS

**Location:** MAIN ENTRANCE, AT CENTER OF SOUTH PROPERTY BORDER

## EXTERIOR SECURITY CAMERA SYSTEM (GSA-MANAGED)

### Description:

AFRH will add two (2) tilt/pan/zoom security cameras in close proximity to the perimeter security fence, both located in the north end of campus. The cameras will be integrated into the existing camera security system, with electrical feed back to the security room for live streaming video. Cameras will be mounted on existing columns of the mechanical platform.

### Necessity:

- The perimeter security fence is not continuous, and these cameras will allow for constant surveillance of potential campus access points
- A fully-secure campus is important to residents, and this improvement will provide a safer environment for all at AFRH-G
- Enhancing the safety and security of Residents within their living environment is a necessary component of the Agency's CARF accreditation
- Enhanced security will effectively protect Residents who engage in outdoor activities on campus, plus it will encourage more Residents to take advantage of the AFRH-G grounds



**Lead:** AFRH-GULFPORT

**Begins:** FY12

**Manager:** GSA

**Status:** IN PROGRESS

**Location:** EXTERIOR, NORTH END OF CAMPUS

## ADDITIONAL PERIMETER FENCING (GSA-MANAGED)

### Description:

AFRH will add fencing material to the bottom of the existing fence along the eastern edge of the property. The additional fencing will close the existing gap between bottom of the fence and the ground, leaving no more than 6" between the fence and ground level. The fencing material will match what is already in place in style, color, and material.

### Necessity:

- The existing perimeter security fence does not sufficiently prevent outside persons and wildlife from entering AFRH property
- A fully-secure campus is important to residents, and this improvement will provide a safer environment for all at AFRH-G
- Enhancing the safety and security of Residents within their living environment is a necessary component of the Agency's CARF accreditation
- Enhanced security will effectively protect Residents who engage in outdoor activities on campus, plus it will encourage more Residents to take advantage of the AFRH-G grounds



**Lead:** AFRH-GULFPORT

**Begins:** FY12

**Manager:** GSA

**Status:** IN PROGRESS

**Location:** EAST BORDER OF PROPERTY

## LOADING DOCK VIDEO/VOICE MONITORING SYSTEM (GSA-MANAGED)



*The video/voice monitoring system will be installed to regulate use of the elevator access at the loading dock*

### **Description:**

To improve security at the loading dock, AFRH will provide and install an independent color video/intercom system that connects to the security desk. This system will allow AFRH to monitor and control the use of the loading dock elevator access point to the facility at all times. The Camera Door Station will be surface-mounted within two feet of either side of existing elevator doors at loading dock area.

### **Necessity:**

- The agency provided keycard entry at all doors and elevators to simplify operations and daily access for residents and staff, and this surveillance system will improve security at the high-traffic loading dock area
- There is currently no technology for real-time communication to the security desk installed at the loading dock
- The Agency's CARF accreditation is dependent upon maintenance of a safe environment that minimizes risk of harm to Residents and staff, and the video/voice monitoring helps achieve this CARF goal

**Lead:** AFRH-GULFPORT

**Begins:** FY12

**Manager:** GSA

**Status:** IN PROGRESS

**Location:** LOADING DOCK, EAST SIDE OF MAIN FACILITY

## PEDESTRIAN BRIDGE TO GENERATOR PLATFORM (GSA-MANAGED)



*Location for Pedestrian Bridge over the vehicular road*



*View of generator platform at AFRH-G*

### **Description:**

AFRH will build an independently supported structural steel bridge connecting the northeast mechanical room of the main facility with the raised platform to the north that holds the emergency generator and diesel fuel oil tanks. The pedestrian connection bridge and its hardware will be built of high-grade galvanized steel, and designed to meet Category 5 hurricane wind, severe saltwater conditions, and fall protection guidelines. A secured gate access entry point will control use of the bridge from the main facility. As the bridge will span the vehicular road along the north side of the facility, the connection will be of sufficient height to meet vehicular clearance requirements for Federal, State, and Local regulations.

### **Necessity:**

- Currently, the emergency generator platform can only be accessed from the ground, making it dangerous and difficult to operate in the event of a flood or other weather emergency. This improvement will allow AFRH to provide a safer environment for residents and staff in the case of emergency.
- The existing access point to the raised generator platform does not provide adequate security to protect residents and visitors.
- The Agency's CARF accreditation is dependent upon maintenance of a safe environment that minimizes risk of harm to Residents and staff. Bridge access to the emergency reserves on the northeast platform helps address this important CARF goal.

**Lead:** AFRH-GULFPORT

**Begins:** FY12

**Manager:** GSA

**Status:** IN PROGRESS

**Location:** EXTERIOR, NORTH ELEVATION OF MAIN FACILITY TO GENERATOR PLATFORM

## SAFE CORNERS ON DINING HALL COLUMNS (GSA-MANAGED)

### Description:

AFRH will modify all projecting decorative wood trim on dining hall columns to create a safer environment. The current projecting wood trim will be removed, modified to remove the existing sharp corners, and replaced. Changes to the wood trim will achieve shape, contour, and texture to prevent bodily injury from pedestrian impact. The altered trim will match wood stain color and complement present design characteristics.

### Necessity:

- The existing dining room columns have projecting trim at approximately four feet from the ground with sharp corners that pose a threat to residents that come into contact with the columns.
- Sharp corners can easily break the fragile skin of the elderly.
- Responding to resident requests is consistent with agency goals to provide Person-Centered Care and to assist residents whenever possible with the process of aging in place.
- The Agency's CARF accreditation is dependent upon maintenance of a safe environment that minimizes risk of harm to Residents and staff. Modifying the dining hall column corners is consistent with this CARF goal.



*The existing corners on the columns in the dining hall are too sharp, interfering with Residents' use of the space*

**Lead:** AFRH-GULFPORT

**Begins:** FY12

**Manager:** GSA

**Status:** IN PROGRESS

**Location:** DINING HALL, SOUTHEAST QUADRANT OF MAIN FACILITY, MAIN FLOOR

# RESIDENT BATHROOM MIRROR CORNER PROTECTION (GSA-MANAGED)

## **Description:**

AFRH will provide, design and install protective corner devices for the mirror doors of the medicine cabinets in resident bathrooms in the Independent Living and the Assisted Living Areas. The devices will prevent human contact with existing upper and lower metal corner projections of the mirrors. The added devices will match or complement present design characteristics of the mirrors, and will be of such shape, contour and texture as to prevent bodily injury from impact with the corners. The corner coverings will be designed and attached to the mirrors in a method able to withstand exposure to constant humid environmental conditions.



## **Necessity:**

- Current bathroom mirrors have sharp corners that are dangerous to residents.
- Sharp corners can easily break the fragile skin of the elderly.
- Responding to resident requests is consistent with agency goals to provide Person-Centered Care and to assist residents whenever possible with the process of aging in place.
- The Agency's CARF accreditation is dependent upon maintenance of a safe environment that minimizes risk of harm to Residents and staff. Modifying the bathroom mirror corners is consistent with this CARF goal.

**Lead:** AFRH-GULFPORT

**Begins:** FY12

**Manager:** GSA

**Status:** IN PROGRESS

**Location:** INDEPENDENT AND ASSISTED LIVING RESIDENT ROOMS, MAIN FACILITY

# PROJECT SET: OUTDOOR AND ACTIVITY PROGRAMMING

These capital improvement projects are part of the AFRH effort to provide a beautiful and active environment for Residents, staff, and visitors. Improvements are designed to leverage existing resources such as the AFRH-G waterfront property with beaches and water views, as well as the charming town nearby. The scenic waterfront property at AFRH-G is a valuable resource that differentiates the Home from other retirement communities, and these projects will further improve the Agency's image to guests, visitors, and potential new Residents. This program will also encourage Resident activity through greater use of and appreciation for the 47 acres on the AFRH-G campus. The outdoor program and the specific projects involved to bring this vision to fruition are discussed in further detail in the Master Landscape Plan (MLP) for Gulfport. The MLP is summarized in this section, but the full document provides a comprehensive concept-level plan for the entirety of the campus.

Outdoor and Activity Programming projects will aim to provide optimal levels of Person-centered Care beyond Resident rooms and common spaces by allowing Residents of various abilities, needs, and interests to use and enjoy the campus. These projects will promote camaraderie, physical activity, independence, and social activity – all of which contribute to a balanced, healthy lifestyle and complement Aging in Place. The planned improvements will encourage and support Resident health and wellness, freedom to move about the campus, and the enjoyment of the natural environment at the Home. This group of projects is closely aligned with the Agency's CARF accreditation, which requires providing appropriate environmental conditions for the benefit of the Residents, as well as architectural and environmental accessibility on campus.

The Outdoor and Activity Programming projects will help to achieve several of the Agency's goals: enhancing the campus as a natural resource and park; accommodating Person-centered Care throughout the campus; meeting and exceeding requirements of CARF accreditation; and creating an inviting, comfortable, and easily navigable environment for Residents, staff, and visitors.

The Outdoor and Activity Programming project set includes:

1. Master Landscape Plan
2. Raised Garden Boxes
3. Fiddlers Green Door
4. Hall of Honors Alterations
5. Covered Outdoor Smoking Area
6. Exterior 120 Volt Receptacles
7. Exterior Double Door Modification
8. Senior TV



# MASTER LANDSCAPE PLAN



Project

*Residents suggested and voted on landscape improvements they would like to see in Gulfport*

### Description:

AFRH is developing Master Landscape Plans (MLPs) for both of its campuses. The MLP for Gulfport will guide AFRH in realizing its vision for the campus as a home-like, therapeutic environment that takes full advantage of the coastal setting and climate in Gulfport. The MLP provides a conceptual plan for the landscape treatment of the entirety of the AFRH-G campus to ensure a cohesive design that is aligned with AFRH’s mission to provide Person-centered Care. The landscape plan will help AFRH in realizing the potential of its Gulfport property and restoring the campus as an amenity to residents, staff, and the surrounding community. Implementation of the MLP will achieve the following objectives:

- Improve resident use and appreciation of the landscape;
- Encourage activity throughout the campus;
- Integrate agency programming with the landscape;
- Provide recommendations for plant species that are appropriate for the coastal climate and soil conditions at Gulfport;
- Celebrate military heritage;
- Incorporate and expand sustainability goals; and
- Maintain the LEED-Gold Certification for the new facility.

### Necessity:

- Some areas of the property at AFRH-G are underutilized
- Additional outdoor spaces for gathering, gardening, and recreation will encourage Resident fitness, health, and camaraderie at AFRH-G

**Lead:** AFRH-AGENCY

**Begins:** FY12

**Manager:** OFFICE OF CAMPUS OPERATIONS

**Status:** IN PROGRESS

**Location:** AFRH-G CAMPUS, ALL

- A cohesive landscape and planting plan that is appropriate for the Gulf coast climate and soil conditions will activate and beautify the Gulfport campus
- A more active and inviting landscape at AFRH-G will provide opportunities to engage with the surrounding community
- Improving outdoor infrastructure and circulation routes to create an accessible landscape is an important initiative to meet agency goals of both Person-centered Care and ADA compliance
- The Agency’s CARF accreditation is dependent upon maintaining appropriate environmental conditions, and providing a safe environment for Residents and staff that minimizes risk of harm helps to achieve this goal

**MLP Projects Managed by GSA**

Several projects included in the MLP are being managed and implemented by GSA. They are summarized in the following table:



<b>Environmental and Systems</b>	RV Charging Pole
<b>Safety and Security</b>	Reconfiguration at Main Entrance Additional Perimeter Fencing
<b>Outdoor and Activity Programming</b>	Raised Garden Boxes

**Concept-Level MLP Projects**

AFRH will consider several concept-level projects from the Gulfport MLP as part of the Outdoor and Activity Programming grouping of the CIP. These projects are not currently included in the CIP schedule or budget, but may be implemented as funding becomes available.

The MLP includes the following concept-level Outdoor and Activity Programming projects for future consideration by AFRH:



<b>Composting</b>	AFRH will consider providing a place for composting vegetative waste from the gardens and greenhouse.
<b>Flowering Trees/ Wooded Area</b>	AFRH will consider working with residents plan an area of flowering trees that is capable of being successful in the coastal area of Mississippi.
<b>Pecan Grove</b>	AFRH will consider relocating the existing pecan grove to minimize the impact of the pollen of these trees on residents with allergies.
<b>Landscape for Smoking Shelter</b>	AFRH will consider improving the landscaping around the recently constructed smoking shelter to make the area more attractive.
<b>Sidewalk Spur</b>	AFRH will consider providing a short sidewalk to connect the existing truck turn around and the walking trail.
<b>Protective Canopies for Irrigation</b>	AFRH will consider providing protective canopies over pumping stations for campus irrigation to shelter the systems from direct sunlight.

<b>Green Roof Irrigation System and Replanting</b>	AFRH will consider providing irrigation and plantings to optimize the performance of the existing green roofs at AFRH-G. Irrigation improvements would provide automatic sprinklers to cover 100% of the vegetative areas; replanting plans would add succulent cuttings to fill existing bare areas of the green roof.
<b>Additional Grounds Irrigation System</b>	AFRH will consider installing additional ground water irrigation zone(s) to be tied into the existing system to improve irrigation coverage of the grounds.
<b>Greenhouse for Raised Gardens</b>	AFRH will consider providing a small greenhouse to support the raised beds, or simply enclosing portions of the garden boxes to create a greenhouse effect as a place to learn horticulture, begin plant growth, care for specialty plants, force plants to bloom, or care for house plants.
<b>Gazebo for Non-Smokers</b>	AFRH will consider adding a gazebo in the southeast corner of the property, near the existing shuffleboard court. The gazebo will enhance the functionality of this area and provide another place for residents to gather outdoors.
<b>Outdoor Gathering Areas</b>	AFRH will consider providing new outdoor gathering areas to provide attractive, accessible locations for fellowship and activity throughout the AFRH-G landscape. The gathering areas will include seating, as well as accommodations for picnicking and grilling.
<b>Water Feature for Reflecting Pond</b>	AFRH will consider adding a water feature to the existing reflecting pond south of the main building. A fountain or waterfall will be installed to add movement to the pond and activate the space; it will improve safety around the water and create a more inviting space.
<b>Additional Irrigation Well</b>	AFRH will consider providing an additional irrigation well to improve water pressure and efficiency of the entire irrigation system.
<b>Enhance Existing Planting Plan</b>	AFRH will consider enhancements to the existing planting with plants that were originally at the Home before Hurricane Katrina, plants that enhance the experience of the landscape, and plants that make the landscape more home-like for residents. AFRH will also consider developing plant identification tools to help residents understand and appreciate the landscape.
<b>Modifications to Parking Garage Entrance Gate</b>	AFRH will consider modifying the curb at the parking garage entrance to improve circulation. Additional paving and removal of portions of curbing will reduce tire and vehicle contact with the curbs and gate. There are multiple options to improve functionality at the entrance, including separating the existing entry point into two separate lanes, one solely for entry and one solely for exit.
<b>Pitch and Put Golf Hole</b>	AFRH will consider installing a short golf hole or putting green adjacent to the existing sand traps for recreational use by residents.
<b>Commemorative Objects</b>	AFRH will consider the installation of additional commemorative objects on campus to celebrate the military heritage of the Home.
<b>Graduation Oak</b>	AFRH will consider taking measures to rehabilitate the existing Graduation Oak, including reducing the multiple limbs to give direction to the future growth.

## RAISED GARDEN BOXES (GSA-MANAGED)

Project



*There is ample open space in the northeast section of campus for raised garden plots*

### **Description:**

The AFRH will construct a gardening area on campus, east of the main facility, that consists of raised garden boxes designed to be accessible for all Residents. Two gardening boxes will be constructed, each 4' x 16', and raised a minimum of 18" off the ground so that Residents can comfortably garden while seated or standing. Further, they will be located as close as possible to existing paths to provide accessibility for Residents using Personal Mobility Devices. The garden boxes will have their own irrigation system that is consistent with LEED-Gold requirements and that will allow year-round gardening. AFRH will provide the organic fill suitable for a variety of plants and vegetables.

### **Necessity:**

- There is no place on campus for Residents to garden, and this will be an important part of the Master Landscape Plan for the Gulfport campus
- Gardening is important to Residents and it is a productive and therapeutic activity for CCRCs
- Gardens promote Resident activity and wellness
- Raised gardens will meet the Agency's CARF-accreditation goal of promoting architectural and environmental accessibility on campus. Garden boxes avoid much of the kneeling and bending required to work in garden plots, making it easier and more comfortable for Residents
- Accessible raised garden plots are consistent with the overall goals of the Master Landscape Plan for AFRH-G

**Lead:** AFRH-GULFPORT

**Begins:** FY12

**Manager:** GSA

**Status:** IN PROGRESS

**Location:** NORTHEAST SECTION OF CAMPUS

## FIDDLERS GREEN DOOR



*The door connecting the Fiddlers Green Tavern (above, right) to the activity room improves circulation during events*

### Description:

The AFRH will provide a double-door between the Fiddlers Green and the multi-purpose room. It includes panic hardware but not an automatic opener, as the door typically remains closed. The door is used to improve circulation patterns during dances and other functions that use both spaces simultaneously.

### Necessity:

- The old floor plan required Residents to go out into the main corridor to travel between Fiddlers Green and the multi-purpose room. Residents preferred a direct connection between these spaces.
- Residents requested this improvement, and developing an appropriate response for meeting the needs of the Residents is consistent with CARF's Person-centered Care philosophy.

**Lead:** AFRH-GULFPORT

**Begins:** FY11

**Manager:** OFFICE OF CAMPUS OPERATIONS

**Status:** COMPLETED

**Location:** FIDDLER'S GREEN (TAVERN), MAIN FACILITY, MAIN FLOOR

# HALL OF HONORS ALTERATIONS

Project



Views of the Hall of Honors at AFRH-G

**Description:**

The AFRH will repair or replace the AFRG-G timeline, which is applied directly to one of the walls in the Hall of Honors. The Agency will move memorabilia that currently obstructs sections of the timeline and fix a mistake in the timeline’s information. Altering the timeline text may require replacement of the entire decorative installment. Other modifications will include removal of the rods and cables that were used to attach images across the timeline.

**Necessity:**

- These changes are necessary to make the exhibit accurate and to enable proper legibility and interpretation of AFRH-G history
- Promoting and enhancing military heritage is one of the AFRH Guiding Principles

**Lead:** AFRH-GULFPORT

**Begins:** FY12

**Manager:** OFFICE OF CAMPUS OPERATIONS

**Status:** IN DEVELOPMENT

**Location:** HALL OF HONORS, MAIN FACILITY, MAIN FLOOR

# COVERED OUTDOOR SMOKING AREA



*Smoking Area entrance*



*Completed smoking area, view from south*

**Description:**

The AFRH constructed a covered shelter where Residents can smoke outside of the main building. The open-air shelter is approximately 280 square feet and is designed to provide adequate air circulation. The shelter is fitted with radiant heat and removable side panels for colder weather, as well as a central gas fire pit. The open space around the new shelter is improved with a short covered walkway from the main facility/parking garage.

**Necessity:**

- A non-smoking policy was implemented at the AFRH in fall 2010, prohibiting smoking inside the building and within a set distance from building entrance
- Without a sheltered area away from the main building, Residents were resorting to smoking in their rooms, on their balconies, and in the stairwells – none of which are designated as safe for smoking
- There was a need to separate smokers from non-smokers to encourage a congenial environment
- The Agency’s CARF accreditation requires the AFRH to honor the rights of both smokers and non-smokers; providing a safe environment for both groups helps to achieve this

<b>Lead:</b>	<b>AFRH-GULFPORT</b>	<b>Begins:</b>	<b>FY11</b>
<b>Manager:</b>	<b>OFFICE OF CAMPUS OPERATIONS</b>	<b>Status:</b>	<b>COMPLETED</b>
<b>Location:</b>	<b>EXTERIOR, NORTHEAST CORNER OF MAIN FACILITY</b>		

# EXTERIOR 120 VOLT RECEPTACLES (GSA-MANAGED)

Project



*South Balcony Columns and plantings at ground level*

*South balcony columns for installation of 120Volt receptacles*

**Description:**

AFRH will add 20 new exterior 120 Volt receptacles on the ten balcony support columns flanking the main (south) entrance to the facility. Two outlets will be installed on the north face of each balcony support column, providing power connections for a variety of uses on the south-facing balconies and in the general vicinity of the main entrance. Hardware connections will be of equivalent type and model to match and complement existing exterior receptacles, and all will have a cover attached that will provide weather proof protection to self and plug devices.

**Necessity:**

- The 120 Volt receptacles will provide power for outdoor events on the south balconies as well as for other outdoor fixtures and amenities.
- Better accommodations outside the facility will promote outdoor activity and activate new areas of the property
- The south balconies are underutilized as an outdoor activity space, and this improvement will make the space more usable and programmable

**Lead:** AFRH-GULFPORT

**Begins:** FY12

**Manager:** GSA

**Status:** IN PROGRESS

**Location:** SOUTH BALCONY SUPPORT COLUMNS (EAST AND WEST), MAIN FACILITY

# EXTERIOR DOUBLE DOOR MODIFICATION AT SOUTH BALCONY (GSA-MANAGED)



*South balcony double doors from interior*



*South Balcony dining hall door*

**Description:**

AFRH will install a new frame and single 42" wide door with sidelite units to replace the existing double door and frame system at the south side of the facility. The system will be capable of opening and closing in a sequence such that the sealing flap provides a watertight seal regardless of which door opens or closes first. The doors will also receive floor sweeps and vertical weather seals to ensure complete closure to water and wind. The doorframe, glass and hardware will match style and color to complement existing finishes, and will use glass and frames to withstand Category 5 hurricane conditions. Additionally, the system will be compatible with the facility's exterior automatic door closure system.

**Necessity:**

- The existing double doors close against a central vertical bar, which has no covering or canopy protection from the elements. This feature draws rain water into the building, causing a slip hazard as well as interior water damage.
- The new doors will have an improved design and weather stripping to provide a watertight seal.
- The new doors will not have a central vertical bar, creating a much wider access point to the building when both doors are open simultaneously.

**Lead:** AFRH-GULFPORT

**Begins:** FY12

**Manager:** GSA

**Status:** IN PROGRESS

**Location:** SOUTH BALCONY, MAIN FACILITY, MAIN FLOOR

# SENIOR TV

**Description:**

AFRH will provide television programming and high speed internet through Senior TV services throughout the Gulfport facility. Senior TV services will provide additional and affordable entertainment and communications options for residents, and will not eliminate any current options available to them.

Available television programming will include six local channels and 90 channels via digital satellite, as well as one guide channel for residents. High speed internet will also be provided. Installation of the Senior TV services satellite antenna will take place on the roof of Tower C, and will require roof penetration with a weatherhead. Associated equipment will be installed in room Comm 1528, which is temperature controlled, and large enough to accommodate the necessary hardware. Distribution wiring will run from rooftop antennae to Comm 1528, to communication closets on the first and second floors to serve the entire building. Existing conduits will be used wherever possible.



**Necessity:**

- AFRH believes this digital entertainment and communications package is a better quality service package than what is currently available to AFRH residents.
- Senior TV allows the agency to program AFRH-specific channels to disseminate specialized information and announcements to residents pertaining to topics such as recreational programming and dining services.
- Senior TV offers a cost savings to most residents interested in television and internet services.
- This package offers more options to residents, responds to resident requests and preferences, and can more directly address individual resident needs and interests – all of these are consistent with AFRH’s philosophy of providing Person-Centered Care.

<b>Lead:</b>	<b>AFRH-GULFPORT</b>	<b>Begins:</b>	<b>FY12</b>
<b>Manager:</b>	<b>OFFICE OF CAMPUS OPERATIONS</b>	<b>Status:</b>	<b>IN DEVELOPMENT</b>
<b>Location:</b>	<b>MAIN FACILITY, THROUGHOUT</b>		

# CAPITAL IMPROVEMENT PLANNING OBJECTIVES

- **Safety and Security:** The project addresses a security / safety concern or deficiency at AFRH-G
- **Compliance:** The project addresses the Agency’s need to comply with regulations, standards, and guidelines that are relevant to its operation as a Federal Agency and a CARF-accredited Continuing Care Retirement Community
- **Resident Priority:** The project addresses specific concerns / wants / needs voiced by Residents
- **Financial Impact:** The project results in a short- or long-term cost avoidance or potentially bring in additional income for the Agency
- **Agency/Campus Image:** The project affects how AFRH-G is perceived by potential Residents, the surrounding community, and Congress

Projects given the highest priority are those that meet Safety and Security goals – and those necessary for the AFRH to comply with relevant standards, guidelines, and regulations. Projects that met all or most of the objectives categories were given priority when budget constraints limited certain projects in any fiscal year.

## Priority Considerations: Gulfport Facility and Chapel

PROJECT	SAFETY AND SECURITY	COMPLIANCE	RESIDENT PRIORITY	FINANCIAL IMPACT	AGENCY/ CAMPUS IMAGE
GULFPORT FACILITY	✓	✓	✓	✓	✓
GULFPORT CHAPEL	✓	✓	✓	✓	✓

## Priority Considerations: Environmental and Systems

PROJECT	SAFETY AND SECURITY	COMPLIANCE	RESIDENT PRIORITY	FINANCIAL IMPACT	AGENCY/ CAMPUS IMAGE
INTERIOR AND EXTERIOR LEED SIGNAGE		✓			✓
LOADING DOCK HYDRALIFT SYSTEM	✓				
RV CHARGING POLE		✓	✓		

## Priority Considerations: Safety and Security

PROJECT	SAFETY AND SECURITY	COMPLIANCE	RESIDENT PRIORITY	FINANCIAL IMPACT	AGENCY/ CAMPUS IMAGE
AUTOMATIC DOOR OPENERS	✓	✓	✓	✓	✓
BUSINESS CENTER BUILD-OUT	✓	✓			
CARD ENTRY FOR GARAGE	✓	✓	✓		
PARKING GARAGE SIGNAGE	✓	✓	✓		✓
REPEATERS FOR CELL PHONES	✓	✓	✓		✓
SOUND ATTENUATION SYSTEM	✓				
RECONFIGURATION AT MAIN ENTRANCE	✓	✓	✓		✓
EXTERIOR SECURITY CAMERA SYSTEM	✓	✓	✓		
ADDITIONAL PERIMETER FENCING	✓	✓	✓		
LOADING DOCK VIDEO/VOICE MONITOR	✓	✓			
PEDESTRIAN BRIDGE TO GENERATOR PLATFORM	✓				
SAFE CORNERS ON DINING HALL COLUMNS	✓		✓		✓
BATHROOM MIRROR PROTECTIVE CORNER DEVICES	✓		✓		

Planning Objectives

## Priority Considerations: Outdoor and Activity Programming

PROJECT	SAFETY AND SECURITY	COMPLIANCE	RESIDENT PRIORITY	FINANCIAL IMPACT	AGENCY/ CAMPUS IMAGE
MASTER LANDSCAPE PLAN	✓	✓	✓		✓
RAISED GARDEN BOXES		✓	✓		✓
FIDDLERS GREEN DOOR		✓	✓		
HALL OF HONORS ALTERATIONS			✓		✓
OUTDOOR SMOKING AREA		✓	✓		✓
ADDITIONAL EXTERIOR 120VOLT RECEPTACLES			✓		
DOUBLE DOOR MODIFICATION AT SOUTH BALCONY	✓				
SENIOR TV		✓	✓		



## CAPITAL IMPROVEMENT TIMELINES

Congress authorizes the allocation of capital funds from the AFRH Trust Fund annually. Since FY08, the AFRH has received \$2 million per year for Agency-wide capital improvement spending. This amount will remain at \$2 million per year through FY13, and includes the contingency money set aside for emergency spending in campus operations. For planning purposes, the annual allocation for FY18-27 is projected to be \$2 million. The only year in the plan that operates on a larger budget is FY11, which was allocated an additional \$1 million for improvements associated with the Scott Project in Washington.

The total budget assumed for the capital improvement plan for FY10-FY21 (approximately \$21 million) was distributed between the Gulfport and Washington communities based on relative need. Given the recent completion of the AFRH-G facility and the relative scale and condition of AFRH-W, the majority of funds are allocated to AFRH-W. The age and historic significance of the Washington community puts further demand on the capital improvement budget to address issues such as modernization of infrastructure and systems, as well as sensitive repairs and alterations to historic resources. The Office of Campus Operations in Gulfport is able to fund several capital improvements with resources allocated for operations and management. Additionally, several improvement projects described in the CIP for Gulfport are being completed by GSA as the final steps in completing the scope of the overall project to rebuild a facility that meets the needs of the Agency and its residents post-Hurricane Katrina.

The AFRH Chief of Campus Operations and the AFRH-G Office of Campus Operations both estimated costs for each project. The costs included in the plan are in FY2011 dollars and are based on dollar amounts from existing and comparable AFRH project contracts.

The project identification process for AFRH-G, as described in the Introduction of this Volume, took place in facilitated sessions on the Gulfport campus that involved Residents, staff, and administrative officers of the AFRH. The resulting list of capital improvement projects was then reviewed and refined to ensure that each project belonged in the plan as a capital improvement, and that each project was aligned with AFRH-G and Agency objectives. Organization of projects within the Agency's capital improvement budget was conducted to ensure that the Person-centered Care and administrative operations at AFRH-W would continue uninterrupted throughout the plan timeline.

When the Capital Improvement Planning process began in 2011, projects in Gulfport were scheduled to take place between FY2011 and 2013. The addition of the Master Landscape Plan and the concept-level projects for renewable energy sources and other campus improvements in the FY2012 update extends the horizon of the Gulfport plan. Management remains confident that its team can complete several projects within the same fiscal year, which will allow AFRH-G to leverage functional, logistical, and cost-saving efficiencies as they arise.

## AFRH-G Projects By Year

### FY2011 – AFRH-G Capital Improvement Projects

Repeaters for Cell Phones (GSA-Managed)
Business Center Build-Out
Card Entry for Garage (GSA-Managed)
Fiddlers Green Door
Outdoor Smoking Area

### FY2012 – AFRH-G Capital Improvement Projects

Hall of Honors Alterations
Raised Garden Boxes (GSA-Managed)
Automatic Door Openers (GSA-Managed)
Parking Garage Signage (GSA-Managed)
Pedestrian Bridge to Generator Platform (GSA-Managed)
Exterior 120Volt Receptacles (GSA-Managed)
Exterior Double Door Modification at South Balcony (GSA-Managed)
Loading Dock Video/Voice Monitor System (GSA-Managed)
Loading Dock Hydralift System (GSA-Managed)
Sound Attenuation System for Administrative Offices (GSA-Managed)
Safe Corners on Dining Hall Columns (GSA-Managed)
Resident Bathroom Mirror Corner Protection (GSA-Managed)
Interior and Exterior LEED Signage (GSA-Managed)
Reconfiguration at Main Entrance (GSA-Managed)
Additional Perimeter Fencing (GSA-Managed)
RV Charging Pole (GSA-Managed)

### FY2013-21 – AFRH-G Capital Improvement Projects

Outdoor Programming Projects included in the MLP, as possible
Efficiency and Renewable Energy Projects, as possible



# AFRH-G Projects By Project Set

## AFRH-G Capital Improvement Timeline By Project Set

Project Set	2011	2012	2013-21
<b>Gulfport Facility and Chapel</b>	(Set Completed FY10)	(Set Completed FY10)	(Set Completed FY10)
<b>Environmental and Systems</b>		Interior and Exterior LEED Signage Loading Dock Hydralift System RV Charging Pole	(Efficiency and Renewable Energy Projects, as funded/possible)
<b>Safety and Security</b>	Business Center Build-Out Repeaters for Cell Phones Garage Card Entry	Automatic Door Openers Parking Garage Signage Sound Attenuation System for Admin Offices Exterior Security Camera System Loading Dock Video/Voice Monitor System Pedestrian Bridge to Generator Platform Safe Corners on Dining Hall Columns Resident Bathroom Mirror Corner Protection Additional Perimeter Fencing Reconfiguration at Main Entrance	
<b>Outdoor and Activity Programming</b>	Fiddlers Green Door Covered Outdoor Smoking Area	Master Landscape Plan Hall of Honors Alterations Additional Exterior 120Volt Receptacles Exterior Double Door Modification Senior TV Raised Garden Boxes	(Conceptual Projects Included in the Master Landscape Plan, as possible)

Fiscal Year

2013-21

2011

2012

Timelines

# **APPENDICES**

- A.1: The AFRH Mission, Vision & Guiding Principles
- A.2: CARF Accreditation
- A.3: Americans with Disabilities Act
- A.4: The Health Insurance Portability and Accountability Act
- A.5: National Environmental Policy Act
- A.6: National Historic Preservation Act
- A.7: Executive Order 13423
- A.8: Executive Order 13514

## **The AFRH Mission, Vision, and Guiding Principles**

All capital improvement projects at AFRH-G must be consistent with and in furtherance of the Agency's Mission, Vision, and Guiding Principles, which are defined as follows:

AFRH Mission: To fulfill our nation's commitment to its veterans by providing a premier retirement community with exceptional residential care and extensive support services.

AFRH Vision: A retirement community committed to excellence, fostering independence, vitality, and wellness for veterans, making it a vibrant place in which to live, work, and thrive.

AFRH Guiding Principles:

- Person-centered
- Accountability
- Integrity
- Inspire excellence
- Honor heritage
- One vision /one mission / one organization
- Workforce growth

## **Commission on Accreditation of Rehabilitation Facilities**

AFRH-W received a five-year Accreditation from the Commission on Accreditation of Rehabilitation Facilities (CARF)-Continuing Care Accreditation Commission (CCAC) in 2008, and the AFRH must ensure that any capital improvement projects are consistent with the Quality Standards set by CARF-CCAC to receive its accreditation. Since 2008, AFRH has also achieved CARF accreditation for the Gulfport campus.

CARF is an independent, non-profit accrediting body whose mission is "to promote the quality, value, and optimal outcomes of services through a consultive accreditation process." AFRH applied for and received a five-year Accreditation from CARF-CCAC in 2008. As part of maintaining the accreditation, the AFRH is subject to periodic inspections

through CARF-CCAC, during which the Agency and its facilities will be evaluated using the following Quality Standards as outlined by CARF. The CARF-CCAC Program includes:

**Mission:** The mission of CARF is to promote the quality, value, and optimal outcomes of services through a consultative accreditation process that centers on enhancing the lives of the persons served.

**Vision:** Through responsiveness to a dynamic and diverse environment, CARF serves as a catalyst for improving the quality of life of the persons served by CARF-accredited organizations and the programs and services they provide.

**Core values:**

- All people have the right to be treated with dignity and respect
- All people should have access to needed services that achieve optimum outcomes
- All people should be empowered to exercise informed choice

**Purposes:**

- To develop and maintain current, field-driven standards that improve the value and responsiveness of the programs and services delivered to people in need of rehabilitation and other life enhancement services
- To recognize organizations that achieve accreditation through a consultative peer-review process and demonstrate their commitment to the continuous improvement of their programs and services with a focus on the needs and outcomes of the persons served
- To conduct accreditation research emphasizing outcomes measurement and management, and to provide information on common program strengths as well as areas needing improvement
- To provide consultation, education, training, and publications that support organizations in achieving and maintaining accreditation of their programs and services
- To provide information & education to persons served and stakeholders on the value of accreditation
- To seek input and to be responsive to persons served and other stakeholders

In addition, CARF is committed to:

- The continuous improvement of both organizational management and service delivery
- Diversity and cultural competence in all CARF activities and associations
- Enhancing the involvement of persons served in all of CARF's activities
- Persons served being active participants in the development & application of standards of accreditation
- Enhancing the meaning, value, and relevance of accreditation to persons served

CARF-CCAC compliance must be taken into consideration in the AFRH Master Capital Improvement Plan in two ways: first, the AFRH must ensure that capital improvement projects are executed in a way that does not conflict with the CARF-CCAC quality standards; second, the AFRH should plan for capital improvement projects that further illustrate the Agency's commitment to these standards.

## **Americans with Disabilities Act**

The AFRH must comply with the Americans with Disabilities Act (ADA) ensure that all facilities at AFRH-G are safe and accessible for Residents of all abilities.

George H. W. Bush signed the ADA into law in 1990, and ADA Standards for Accessible Design have since been developed

and enforced by the Department of Justice. The Standards, parts of Titles II and III Regulations (28 CFR Part 35 and 36), were published in 1991 and revised in 1994. New regulations were published in 2010; compliance with the new regulations is permitted as of September 15, 2010, but not required until March 15, 2012. When considering ADA Design Standards for the AFRH capital improvement projects, it will be prudent to apply 2010 Standards.

Title II regulations are applicable to State and Local Government Facilities, and Title III standards apply to Public Accommodations and Commercial Facilities. 2004 ADAAG at 36 CFR part 1191, appendices B and D, apply to both Title II and Title III facilities. The purpose of the ADA Standards for Accessible Design is to allow individuals with disabilities to access places of Local and State Government as well as public accommodations and commercial facilities. The guidelines are to be applied during the design, construction, and alteration of buildings that are subject to compliance to these regulations under the ADA of 1990. In new construction and alteration projects, standards take into consideration building access, path of travel, and accessible features (telephones, drinking fountains, restrooms, parking, etc.).

## **The Health Insurance Portability and Accountability Act**

Because the AFRH provides healthcare services to Residents, the Agency must comply with the Health Insurance Portability and Accountability Act of 1996 (HIPAA). Capital improvement projects will be subject to compliance with both the Privacy and Security Rules under HIPAA.

HIPAA (PL 104-191) became law in 1996 and stipulates that the U.S. Department of Health and Human Services (HHS) develop national standards for electronic healthcare transaction security and Federal privacy protections for individually identifiable health information. In response, HHS published the Privacy Rule and the Security Rule in 2000 and 2002, respectively. Sections of these rules include regulations for real and personal property associated with medical services and health information that are relevant to capital improvement projects at AFRH-G.

## **National Environmental Policy Act**

To comply with NEPA, every capital improvement project at AFRH-G must include consideration and analysis of its impacts on the environment, as well as on the relationship of people with the environment. Specifically, each project must comply with the AFRH NEPA compliance policies established in 38 CFR Part 200 in November 2009.

President Richard M. Nixon signed the National Environmental Protection Act (NEPA, PL 91-190, as amended) into law on January 1, 1970, requiring every Federal agency to consider the impact of its actions on the human environment. NEPA also requires each agency to establish agency-specific procedures for NEPA compliance. The AFRH established its Agency-specific NEPA procedures in 2009 to ensure implementation of NEPA and cooperation with related agencies, including the National Capital Planning Commission (NCPC). These procedures include guidelines for the Classification of the AFRH Actions, which direct the AFRH to place proposed actions into one of three classes of documentation: A Categorical Exclusion (CATEX), Environmental Assessment (EA) or Environmental Impact Statement (EIS): Some capital improvement projects may also include public involvement in the planning stages, depending on the degree of projected impacts.

## **National Historic Preservation Act**

Because the AFRH is a Federal Agency, it must comply with the National Historic Preservation Act of 1966, as amended (NHPA) and its associated regulations and guidelines. Most NHPA compliance for a Federal agency is related to Section 106, Section 110, and Section 111 of the Act.

### **NHPA SECTION 106**

All AFRH-G capital improvement projects must be assessed for potential adverse effects on historic resources.

Section 106 of the NHPA (36 CFR Part 800) requires Federal agencies to take into account the effects of their un-

undertakings on historic properties and afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment. Once a Federal agency has proposed an undertaking, it must identify a potential area of effect, identify historic properties within that area of effect, identify potential adverse effects to those properties, and resolve those properties through avoidance, minimization or mitigation. This process is completed in coordination with the State Historic Preservation Officer (SHPO) and could include consultation with other relevant public and private stakeholders.

#### NHPA SECTION 110

In the planning of capital improvement projects, the AFRH must identify and address the preservation needs of its historic resources and endeavor to keep historic resources in productive use.

The intent of Section 110 of the NHPA (16 U.S.C. 470) is to ensure that historic preservation is fully integrated into the ongoing programs of Federal agencies, including planning, budgeting, and operations. Section 110 regulations state explicit Federal agency responsibilities, including the identification and protection of historic properties, the avoidance of “unnecessary damage” to historic resources, and the consideration of projects and programs that further the purposes of the NHPA. This includes the declaration that historic properties under the jurisdiction or control of the agency are to be managed and maintained in a way that considers the preservation of their historic, archeological, architectural, and cultural values.

#### NHPA SECTION 111

All capital improvement projects that are related to the sale, lease, or exchange of historic properties at AFRH-G must take into consideration Section 111 of the NHPA.

The intent of Section 111 of the NHPA (16 U.S.C. 470h-3) is to authorize Federal agencies to sell, lease, or exchange historic properties that they own or control to non-Federal entities for their mutual benefit and to encourage agencies to take measures that will preserve the historic integrity of properties once they leave.

### Executive Order 13423

The AFRH capital improvement projects that have an environmental impact through use and management of energy will be subject to Executive Order (EO) 13423 Strengthening Federal Environmental, Energy, and Transportation Management. The AFRH as a Federal Agency must comply with the entirety of the EO; capital improvement planning should take this into account for projects that involve new construction and renovation, or that have the potential to reduce greenhouse gas emissions and water consumption intensity.

This Executive Order, signed by President George W. Bush on January 23, 2007, requires the implementation of a wide range of sustainable practices for all Federal agencies. The order directs Federal agencies to: (2a) improve energy efficiency and reduce greenhouse gas emissions; (2b) use renewable energy sources; (2c) reduce water consumption intensity; (2d) use sustainable environmental practices in acquisitions of goods and services; (2e) reduce pollution and use recycling programs; (2f) ensure sustainable design and high-performance buildings; (2g) ensure sustainable practices in operations of motor vehicles; (2h) ensure proper electronics stewardship.

As an independent Federal Agency, the AFRH is subject to all sections of this order. For the purposes of planning for capital improvements, however, the Agency will focus on those requirements affecting infrastructure, renovation, and new construction. Three of the Goals for Agencies are anticipated to play the largest role in planning for compliance:

1. Section 2 (a) improve energy efficiency and reduce greenhouse gas emissions of the Agency, through reduction of energy intensity by (i) three percent annually through the end of fiscal year 2015, or (ii) 30 percent by the end of fiscal year 2015, relative to the baseline of the Agency’s energy use in FY 2003;
2. Section 2 (c) beginning in fiscal year 2008, reduce water consumption intensity, relative to the baseline of the

Agency's water consumption in fiscal year 2007, through life-cycle cost-effective measures by 2 percent annually through the end of fiscal year 2015 or 16 percent by the end of fiscal year 2015;

3. Section 2 (f) ensure that (i) new construction and major renovation of Agency buildings comply with the Guiding Principles for Federal leadership in High Performance and Sustainable Buildings set forth in the Guiding Principles for Federal leadership in High Performance and Sustainable Buildings Memorandum of Understanding (2006), and (ii) 15 percent of the existing Federal capital asset building inventory of the agency as of the end of FY 2015 incorporates the sustainable practices in the Guiding Principles.

## Executive Order 13514

The AFRH must comply with Executive Order (EO) 13514 Federal Leadership in Environmental, Energy, and Economic Performance to exhibit leadership in environmental, energy, and economic performance in its capital improvement projects. As an expansion of EO 13423, this EO places more specific requirements and target dates for compliance with the environmental regulations ordered. If capital improvement projects qualify for compliance here, they must be in keeping with the mandated Agency Strategic Sustainability Performance Plan.

On October 5, 2009, President Barack Obama ordered Federal Leadership in Environmental, Energy, and Economic Performance. It does not rescind the requirements of EO 13423, but rather expands upon them, specifically aiming "to establish an integrated strategy towards sustainability in the Federal Government and to make reduction of greenhouse gas emissions a priority for Federal agencies."

This EO sets forth four different categories of requirements: deadlines for achieving GHG reduction targets; numerical goals for each individual agency; non-numerical goals for each agency; and an Agency Strategic Sustainability Performance Plan, to be developed, implemented, and updated annually. Section 2 stipulates the goals that Federal agencies must meet, all of which apply to the AFRH as an independent Federal Agency. The plan for capital improvements will focus on compliance with the following Goals for Agencies:

1. Section 2 (f) advance regional and local integrated planning;
2. Section 2 (g) implement high performance sustainable Federal building design, construction, operation and management, maintenance, and deconstruction by:
  - a. Beginning in 2020 and thereafter, ensuring that all new Federal buildings that enter the planning process are designed to achieve zero-net-energy by 2030;
  - b. Ensuring that all new construction, major renovation, or repair and alteration of Federal buildings complies with the Guiding Principles for Federal leadership in High Performance and Sustainable Buildings (Guiding Principles);
  - c. Ensuring that at least 15 percent of the agency's existing buildings (above 5,000 gross square feet) and building leases (above 5,000 gross square feet) meet the Guiding Principles by fiscal year 2015 and that the agency makes annual progress toward 100-percent conformance with the Guiding Principles for its building inventory;
  - d. Pursuing cost-effective, innovative strategies, such as highly reflective and vegetative roofs, to minimize consumption of energy, water, and materials
  - e. Managing existing building systems to reduce the consumption of energy, water, and materials, and identifying alternatives to renovation that reduce existing assets' deferred maintenance costs;
  - f. When adding assets to the agency's real property inventory, identifying opportunities to consolidate and dispose of existing assets, optimize the performance of the agency's real-property portfolio, and reduce associated environmental impacts;
  - g. Ensuring that rehabilitation of federally owned historic buildings utilizes best practices and technologies in retro-

fitting to promote long-term viability of the buildings.

3. Section 2 (h) advance sustainable acquisition to ensure that 95 percent of new contract actions including task and delivery orders, for products and services with the exception of acquisition of weapon systems, are energy efficient... water efficient, biobased, environmentally preferable... non-ozone depleting, contain recycled content, or are non-toxic or less-toxic alternatives, where such products and services meet agency performance requirements.

Further, Section 8 of the EO mandates that the AFRH develop an Agency Strategic Sustainability Performance Plan for the 10 years beginning in fiscal year 2011 and continuing through fiscal year 2021. The plan must state how the agency will achieve all sustainability goals and targets in Section 2 of the document, and therefore has the potential to affect the implementation of many capital improvement projects at AFRH.





*Inspiring*  
**INDEPENDENCE**



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**The AFRH-W Capital Improvement Plan**  
**FY2011-21**  
**(FY2012 Update)**

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# INTRODUCTION



AFRH-Washington (AFRH-W) is an historic 272-acre campus that is located in northwest Washington, DC. This community provides residential and health services to about 500 seniors - 50% of the total number of Residents served by the AFRH. The population is made up of men and women from all five branches of the US military, including veterans who have served in war theaters ranging from World War II to Grenada. AFRH-W is also home to the administrative functions of the Agency, including the office of the Chief Operating Officer. The infrastructure of the AFRH-W campus dates from 1842 to 1992 and presents several opportunities for modernization. Also, AFRH is seeking to consolidate operations on the northern section of the campus to improve operational efficiency and decrease the Home's energy consumption as dictated by new Federal energy standards.

The Capital Improvement Plan (CIP) for AFRH-W is one Volume of the larger AFRH CIP. The ten-year Capital Improvement Plan for the Agency was first drafted in FY2011, and is updated annually to reflect progress at AFRH as well as modifications to the Plan. This FY2012 edition of the AFRH CIP for Washington presents 43 projects that address community needs as well as management's vision for the campus through FY21. Projects will be funded primarily through the AFRH annual capital improvement budget, with select projects funded through the AFRH-W operations budget, existing maintenance IDIQ contracts, or potential grants funds. Management wants the CIP to convey the Agency's long-term vision for the physical improvements of the Washington campus. So, this Plan includes future projects plus those that were completed in FY2010-12 that are part of larger ongoing capital improvement initiatives.

## **The AFRH-W CIP includes eight sections:**

- 1. Introduction** to the Plan
- 2. AFRH-W Background and Campus Context:** an introduction to the Washington campus, including both the history of the Home and the appeal of the campus to existing and potential Residents
- 3. AFRH-W Capital Improvement Plan Methodology:** A description of the scope of the Plan and the methods used in the planning process
- 4. AFRH-W Capital Improvement Projects:** Descriptions of 43 proposed capital improvement projects
- 5. AFRH-W Capital Improvement Project Priorities:** A summary of the needs and requirements addressed by each capital improvement project
- 6. AFRH-W Capital Improvement Project Dependencies:** Descriptions of possible project groupings that reflect functional or cost-saving dependencies
- 7. AFRH-W Capital Improvement Timeline:** a timeline of capital improvement projects as planned through FY2021 based on budget, priorities, and dependencies
- 8. Appendices**

# WASHINGTON CAMPUS CONTEXT

## AFRH-W History

In 1851, the US Congress established a new organization, the US Military Asylum. The new Home in Washington was an institution created for the “relief and support of invalid and disabled soldiers of the Army of the United States” and it was funded using an endowment collected by General Winfield Scott during his occupation of Mexico City in 1848.

The US Government purchased a 255-acre country estate outside the formal city limits of Washington for the purpose of establishing the first of three branches of its new US Military Asylum. The purchased estate offered panoramic views of the Nation’s Capital and promised a picturesque and therapeutic setting for its veteran “inmates”. The property included farmland, livestock, and the Riggs Cottage, which was constructed in 1842 by prominent banker George Washington Riggs.



By 1857, the first three masonry buildings at the Washington campus were constructed, and a flagstaff had been posted to signify the establishment of a military installation. Two additional branches of the Military Asylum were established in Kentucky and Mississippi in the 1850s. By 1859, the institution had been renamed the Old Soldiers’ Home, from which it takes its enduring nickname, “the Home.” Today, the Washington campus is the only surviving branch of the three original branches established in 1851 and has remained a symbol of the nation’s commitment to the care of military veterans for more than 160 years.

This Home has played an important role in the country’s political and military history. Its Board of Commissioners has included such luminaries as General Winfield Scott, General William T. Sherman, General Philip Sheridan, and US Surgeon General Joseph K. Barnes. In addition, four sitting US presidents, including President Abraham Lincoln, are known to have kept residences at the Home.

During the summer of 1862, Lincoln continued to develop his emancipation policy and drafted the final version of the Emancipation Proclamation while residing in the original Solders’ Home – the building now referred to as Lincoln Cottage. Although the Home has not been a site of direct military action, the Union Army used its grounds as a Civil War signal post, with its high elevation providing President Lincoln with the opportunity to view random skirmishes that occurred nearby.

The Home has also played an important role in the history of Washington, DC. In the late 19th Century, a landscape design was implemented throughout the campus to transform the Home into a picturesque park for Residents and the general public. During this time, major expansion of the campus included the construction of roads, garden structures, and gatehouses, as well as many of the Home’s most significant historic buildings. The Home is also significant for its history as a model of advanced medical technologies and services, with the 1906 Forwood Building featuring one of the first operating theaters in the Country.



*Artist’s painting of the Soldiers’ Home (1868)*

To recognize its historic significance, the entirety of what is now AFRH-W has been designated a historic district in the National Register of Historic Places and the District of Columbia Inventory of Historic sites. The Lincoln Cottage and the three original masonry

buildings constructed in 1854 were all designated as a single National Historic Landmark in 1979. And, in 2000, President William Clinton dedicated a section of the campus as the President Lincoln's Cottage National Monument. Still, the Residents who have lived here since 1851 continue to be the most legendary aspects of the Home. They are living history – and can tell you eyewitness stories about how the US military has preserved liberty.



*Aerial view, US Soldiers' and Airmen's Home (1921)*

## **AFRH-W Community Profile**

Located in the heart of the metropolitan center of Washington, DC, this 272-acre campus provides US veterans and retired military with an urban oasis of beautiful trees, rolling pastures, majestic views, and tranquil wildlife. The buildings at AFRH-W date back to 1842 and represent the Home's rich history, a source of pride for many Residents, past and present.

Residents can participate in a wide range of outdoor activities within the safety and security of the campus such as fishing, golfing, gardening, walking, or simply enjoying the picturesque landscape of the Home. Other campus amenities include a bowling center, several hobby shops, a theater, and an art colony. AFRH-W often hosts social events that contribute to a sense of community and shared experiences for the Residents and staff including dances, volunteer events, speakers, concerts, and movies. AFRH-W Residents also enjoy the numerous opportunities afforded by the Home's location in the heart of our Nation's Capital, including the proximity to museums, theaters, sports venues, and parks. A short ride on the off-campus shuttle can take Residents to the Smithsonian museums, the White House, and many of our nation's most impressive memorials, including the Washington Monument and Arlington Cemetery.

Today, the AFRH-W is a CARF-accredited CCRC that provides Residents with a comfortable and beautiful setting in which they can age in place. Private Resident rooms are located steps away from the dining hall, library, theater, hobby shops, computer center, bowling center, mailroom, chapels, and PX. The friendly, professional staff of AFRH-W provides Residents with five unique levels of care: Independent Living, Independent Living Plus Pilot Program, Assisted Living, Memory Support, and Long Term Care. General health and wellness services include dental, podiatry, and vision programs, as well as urology, psychiatry, internal medicine, and COPD. Adjacent to campus are the renowned Washington Hospital Center and the VA Hospital, augmenting to the advanced health services available to Residents.



AFRH has adopted a new philosophy of Person-centered Care in each aspect of Resident and health services. Staff members identify and consider the needs of each Resident, recognizing that they are active participants in guiding and charting their own lives. Each Resident is treated with dignity and respect, and is encouraged to exercise choice, self-determination, and purposeful living within the support structure of a caring environment.

Since this plan was developed early in 2011, a 5.8-magnitude earthquake hit Washington, DC in August 2011 and caused major damage to the historic Sherman Building among other buildings at

AFRH-W. Luckily, no member of the AFRH community was harmed as a result of the event. Four days later, a tropical storm swept through the District, exacerbating earthquake damage already done to buildings on campus. The natural disasters of August 2011 left lasting effects on the built environment and the daily operations of AFRH-W. The FY2012 CIP update reflects Agency efforts to recover from the earthquake by rehabilitating the Sherman Building and reclaiming valuable office and common space for the Agency's administration.

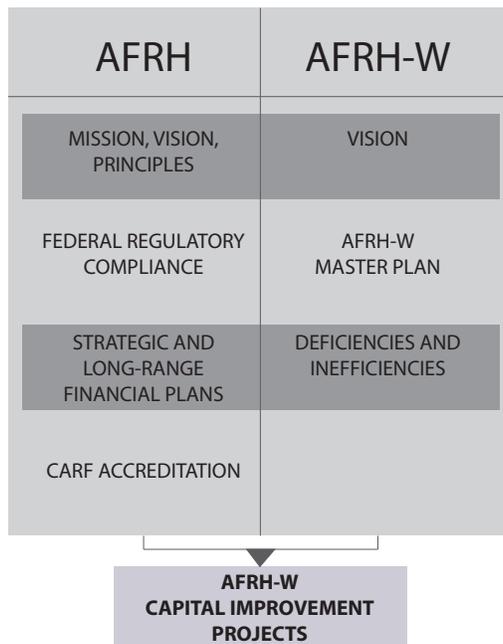
# METHODOLOGY



## Project Identification

To create the AFRH-W CIP, the AFRH identified capital improvement projects that would address the needs and goals of both the Agency and the Washington campus. Management first evaluated the Agency’s needs related to fulfilling the vision for AFRH-W, addressing AFRH-W operational and infrastructure deficiencies and inefficiencies, and meeting the objectives of the AFRH-W Master Plan (2008).

AFRH then identified discrete capital improvement projects that will address those needs. At the Agency level, each capital improvement project identified for AFRH-W will both reinforce and be consistent with the AFRH Mission, Vision, and Guiding Principles, relevant Federal regulations, all CARF standards and guidelines, and relevant Agency Plans (Strategic, Business, and Long Range Financial Plan).



## Project Definition

The scope of each capital improvement project was defined based on campus and Agency needs and visions, as well as the various types of compliance relevant to the Washington campus.

Areas of project compliance include:

- **AFRH Mission, Vision, and Guiding Principles:** All capital improvement projects at AFRH-W must be consistent with and in furtherance of the Agency's Mission, Vision, and Guiding Principles
- **CARF Accreditation:** AFRH-W received a five-year accreditation from the Commission on Accreditation of Rehabilitation Facilities-Continuing Care Accreditation Commission (CARF-CCAC) for the Washington Campus in 2008. As such, the AFRH must ensure all capital improvement projects at AFRH-W are consistent with the Quality Standards set by CARF-CCAC to maintain its accreditation
- **AFRH-W Master Plan:** All proposed capital improvement projects at AFRH-W should be consistent with the NCPC-approved AFRH-W Master Plan (2008). Any material deviation from the Master Plan will require a Master Plan Amendment, which triggers other regulatory compliance related to historic preservation and environmental impacts
- **National Environmental Protection Act (NEPA):** To comply with NEPA, every capital improvement project at AFRH-W must include consideration and analysis of its impacts on the environment, as well as on the relationship of people with the environment. Specifically, each project must comply with the AFRH NEPA compliance policies established in 38 CFR Part 200 in November 2009
- **National Historic Preservation Act (NHPA):** Since AFRH is a Federal Agency, it must comply with the National Historic Preservation Act of 1966, as amended (NHPA) and its associated regulations and guidelines. The AFRH complies with the NHPA through implementation of the AFRH-W Historic Preservation Plan and the stipulations of the AFRH-W Programmatic Agreement. Most NHPA compliance for a Federal Agency is related to Section 106, Section 110, and Section 111 of the Act
- **Executive Order 13423:** AFRH-W capital improvement projects that have an environmental impact through use and management of energy will be subject to Executive Order (EO) 13423. AFRH as a Federal Agency must comply with the entirety of the EO; capital improvement planning should take this into account for projects that involve new construction and renovation, or that have the potential to reduce greenhouse gas emissions and water consumption intensity
- **Executive Order 13514:** AFRH must comply with Executive Order (EO) 13514 to exhibit leadership in environmental, energy, and economic performance in its capital improvement projects. As an expansion of EO 13423, this Order places more specific requirements and target dates for compliance. AFRH must also consider the US Green Building Council's standards for achieving and maintaining the LEED Gold certification of the new Scott Building.
- **The Health Insurance Portability and Accountability Act:** Since AFRH provides healthcare services to Residents, the Agency must comply with the Health Insurance Portability and Accountability Act of 1996 (HIPAA). Capital improvement projects will be subject to compliance with both the Privacy and Security Rules under HIPAA
- **The Americans with Disabilities Act (ADA):** AFRH must comply with the ADA and ensure that all facilities at AFRH-W are safe and accessible for Residents, staff, and visitors of all abilities

See Appendices for detailed information about each area of compliance.

## Project Objectives

- **Safety and Security:** The project addresses a security or safety concern or deficiency at AFRH-W
- **Resident Priority:** The project addresses specific concerns/wants/needs voiced by AFRH-W Residents
- **Compliance:** The project addresses the Agency's need to comply with regulations, standards, and guidelines that are relevant to its operation as a Federal Agency and a CARF-accredited Continuing Care Retirement Community (CCRC)
- **Financial Impact:** The project results in a short- or long-term cost avoidance or may bring in additional income for the Agency
- **Agency/Campus Image:** The project affects how AFRH-W is perceived by potential Residents, the surrounding community, the Department of Defense, and Congress

## Project Dependencies

- **Functional Dependencies:** Groups of projects that should be done in a specific sequence or simultaneously to optimize operations at AFRH-W or to ensure uninterrupted operations during project completion
- **Cost Dependencies:** Groups of projects that, if done together, could result in cost savings for the Agency. Cost savings are based on similar scopes of work and the ability to consolidate contractor agreements, materials procurement, regulatory reviews, and other costly efforts



## AFRH-W Project Sets

The AFRH is planning 43 discrete capital improvement projects at AFRH-W. These projects have been identified by the Agency in its assessment of its long-term financial and operational objectives, as well as the overall vision for the Washington campus. These projects are grouped into five Sets:

- **The Scott Project:** those projects necessary to replace the old Scott Building (circa 1954) with a new modern facility and to consolidate residential and health functions in the north end of campus
- **Environmental and Systems:** projects necessary to improve the energy and functional efficiency of the infrastructure and buildings at AFRH-W and to meet the Agency's obligations under Executive Orders 13423 and 13514
- **Preservation and Stabilization:** projects necessary to preserve and stabilize the Home's historic buildings and to meet the Agency's obligations under the National Historic Preservation Act
- **Safety and Security:** projects necessary to ensure a safe and secure environment at AFRH-W and to meet standards and requirements of CARF and ADA
- **Outdoor and Activity Programming:** projects that enhance and increase the activities programming for Residents and elevate the role of the AFRH-W campus as an amenity to Residents and staff, including a comprehensive program of landscape improvements from the AFRH-W Master Landscape Plan.

## Project Facts

Each individual project features a summary of the description and necessity of each project, plus easily accessible information on the project status. Altogether this information includes:

- **Description:** a description of the project's scope, including design where applicable
- **Necessity:** a summary of the project need relative to the AFRH Mission, Vision, and Guiding Principles, as well as to the various regulations, standards, and guidelines that impact the Agency
- **Lead:** identification of the party in charge of determining the project scope and design (AFRH Corporate, AFRH-Washington, or AFRH-Gulfport)
- **Manager:** identification of the party in charge of managing all project construction (Office of Campus Operations, General Services Administration, etc.)
- **Location:** a summary of where the project will take place and the buildings affected
- **Status:** the AFRH fiscal year in which the project will begin. A range of fiscal years has been identified for projects that will be completed in phases.

# CAPITAL IMPROVEMENT PROJECTS

## Campus Consolidation and Modernization

The AFRH has planned a variety of projects to take the historic Washington campus into the 21st Century. The anchor of the campus improvement initiative is “the Scott Project” – a series of projects managed by both GSA and AFRH. Starting in 2010, the AFRH began the Scott Project, which marks a pivotal moment in the history of the Home. This initiative will result in the consolidation of AFRH-W operations in the north end of the 272-acre campus and a comprehensive modernization of its facilities and systems. The Scott Project revolves around the replacement of the outdated 1954 Scott Building with a new facility that embodies modern philosophies in sustainability and senior care. Through the replacement of one of the Home’s primary residential and commons facilities, the Agency has the opportunity to holistically review and improve its existing systems, facilities, and operations to further the AFRH goals for energy efficiency and Resident care. The grouping of these consolidation and modernization projects into a three-year span allows AFRH to leverage the substantial changes involved in the Scott Building Replacement and to update the campus efficiently, cost-effectively, and with minimal disruption to Residents and personnel.

The Scott Project will be completed through several individual capital improvement projects that collectively result in the consolidation and modernization of AFRH-W. Some of these capital improvement projects are directly related to the replacement of the Scott Building and are presented in this Capital Improvement Plan under the “Scott Building Project” group. The list of projects within the Scott Building Project provides a sense of the new construction and physical changes required for demolition and new construction on the Scott Building site. However, it does not reflect the true extent of updates and investments that will be completed by the time the new building opens its doors in 2013. These additional projects are organized in this Capital Improvement Plan based on the other major initiatives being undertaken by the Home, such as the furtherance of outdoor and activity programming, improvement of safety and security on campus, and improvement of energy efficiency and campus systems. The table below provides a comprehensive list of updates and modifications that are driven by the larger Scott Project consolidation and modernization initiative, all of which are slated for completion by FY2013.

PROJECT SETS	PROJECTS DRIVEN BY THE SCOTT PROJECT
<b>SCOTT PROJECTS (GSA-MANAGED)</b>	Scott Building Replacement/Modernization IT Hub Relocation New Chiller Sherman-Scott Sidewalk Realignment New Elevators in Sheridan Building Exterior Renovations for Assisted Living
<b>SCOTT PROJECTS (AFRH-MANAGED)</b>	Sherman Building Transition Sheridan Building Transition
<b>ENVIRONMENTAL AND SYSTEMS</b>	Heating System Replacement
<b>SAFETY AND SECURITY</b>	Eagle Gate Renovation (GSA-Managed) Sheridan Elevator Replacement Interior Renovations for Assisted Living Keyless Entry Safe Deposit Boxes Security Cameras and Wandering Alarm Fire Alarm System Updates
<b>OUTDOOR &amp; ACTIVITY PROGRAMMING</b>	Golf Club House Replacement Community Gardens Relocation Golf Cart/PMV Parking and Charging

**SYSTEMS MODERNIZATION AND CAMPUS CONSOLIDATION (2010-13)**

**UTILITY SYSTEMS**

Heating System Replacement

**SAFETY AND SECURITY SYSTEMS**

Eagle Gate Renovation  
Sheridan Elevator Replacement  
Keyless Entry System  
Safe Deposit Boxes  
Security Cameras  
Wandering Alarm System  
Fire Alarm System Updates

**OUTDOOR PROGRAMS**

Golf Club House Replacement

**RESIDENT SERVICES**

New Scott Building  
Sherman Transition  
Sheridan Transition  
Renovations for Assisted Living

**OUTDOOR PROGRAMS**

Sherman-Scott Sidewalk Realignment  
Relocation of Community Gardens  
Golf Cart/PMV Parking and Charging

**MODERNIZATION**

**CONSOLIDATION**

**The Scott Project**

# PROJECT SET: THE SCOTT PROJECT



*Artist's rendering of the new Scott Building*

The Agency's vision for the Scott Project is part of a larger effort to consolidate AFRH-W residential and healthcare operations and to provide facilities that meet modern senior living standards. Today, Assisted Living (AL), Long Term Care (LTC), and Memory Support (MS), Residents live in the LaGarde Building, located in the southern section of the campus. Independent Living (IL) is currently housed in the Sheridan Building and previously in the old Scott Building in the northern section of the campus (campus core). AFRH currently provides separate dining and commons functions for the north and south ends of campus, but it will increase operational and programmatic efficiency by consolidating all residential operations in the north end, thus eliminating duplicative functions.

The Scott Project also addresses the modernization of AFRH-W facilities. At the time of its demolition, the old Scott Building, constructed in 1954, was outdated and did not sufficiently accommodate the needs and interests of the Residents and staff. Further, veterans from recent war theaters will have different medical and accessibility needs than current Residents. The new facilities will be designed to address changing needs, maximize energy efficiency, meet current building codes, and reflect the latest standards and practices in senior housing and healthcare. In sum, the Scott Project will address the following Operational and Design Objectives identified by the AFRH:

- Improve consistency with contemporary philosophies in senior living, particularly the concept of "small house" design for skilled memory support and long term nursing care
- Enhance programs and space will facilitate a more unified community and create ease of mobility from room to room, rooms to commons, and within the commons area itself
- Increase energy and operational efficiency—including reduced energy consumption, water consumption, and greenhouse gas emissions per square foot—and contribute to the Agency's compliance with requirements under EO 13423 and EO 13514.
- Build complex building infrastructure systems for modern medical and residential needs
- Create efficient and modern commons spaces that accommodate the needs of all Residents
- Apply modern gerontological design principles to support physical, sensory, and cognitive challenges faced by the Residents
- Create in-house health care that promotes the concept of Aging in Place, and
- Improve contextual design and compatibility with the historic character of the surrounding AFRH-W Historic District and the adjacent National Historic Landmark



### **SCOTT PROJECTS MANAGED BY GSA**

General Services Administration (GSA) has implemented or plans to complete all necessary activities to demolish the old Scott Building, construct the new Scott Building, provide needed infrastructure, and integrate the new building into the current landscape. These vital projects include:

1. Scott Building Replacement and Modernization (Including designs for new Scott Landscape and Sheridan Plaza)
2. IT HUB Relocation
3. New Chiller
4. Sherman-Scott Sidewalk Realignment
5. Exterior Renovations for Assisted Living
6. New Elevators in Sheridan Building



### **SCOTT PROJECTS MANAGED BY AFRH**

The AFRH has implemented other critical projects needed to achieve continuous operations and activities by creating temporary spaces for administrative and Resident use until the opening of the new building in 2013. Those projects are included in the following:

7. Sherman Building Transition
8. Sheridan Building Residence Transition

# SCOTT BUILDING REPLACEMENT (GSA-MANAGED)

Project



*The new Scott Building under construction*



*Aerial rendering of the new Scott Building from SW*

## **Description:**

The AFRH demolished the old Scott Building in FY2011-12 and is constructing a new, approximately 170,000 gsf, facility in the same location. The new facility is called the new Scott Building, or simply the Scott, and is programmed to include a Health Center, a Wellness Center, common activity spaces, as well as office space. The building will also include a Hall of Honor, a functionally and symbolically important space that is located prominently on the center of the first floor. The Health Center will provide a skilled nursing facility for 36 LTC Residents and 24 MS Residents. The new facilities will be consistent with modern standards for senior living, namely the “small house” philosophy of clustered residences around common living and dining spaces.

The building will also house shared amenity and support spaces which will create a center of activity for the entire AFRH-W community. The Scott will provide a place where Residents come together for socializing, physical fitness, educational pursuits, musical interests, business, and other recreational activities. The Scott Building will also include a central kitchen and dining hall where most of the Residents will dine three times a day. The Wellness Center of the new facility will address Residents’ primary medical needs, ranging from dental to psychological. The facility will also house new efficient and modern workspaces for a majority of the staff and administration of the AFRH-W.

The new building is designed to meet LEED Gold standards as part of the Agency’s efforts to improve resource efficiency and achieve more sustainable operations. The design of the building will also create a more sensitive and appropriate presence on the historic quadrangle in the north end of campus and will recognize the formality and axial alignment of the dominant existing historic structures on the campus. The building will have a compact footprint that opens up additional landscaped spaces and views on the site. The area between the Sheridan and Scott Buildings will become Sheridan Plaza, which is being redesigned and pedestrianized as an extension of the new facility’s landscape.

The operational requirements of the program will be distributed on three floors: the ground floor and first floor will house common activity spaces, the Wellness Center, Hall of Honors, and administrative offices, while the second and third floors will house the Health Center for LTC and MS. Service and ambulance access will be located at the rear of the building, and an enclosed corridor along the north side of the ground floor will provide service directly from the loading dock and office spaces to the Sheridan tunnel. The tunnel will be expanded to provide separate paths for both

<b>Lead:</b>	<b>AFRH-AGENCY</b>	<b>Begins:</b>	<b>FY11</b>
<b>Manager:</b>	<b>GSA</b>	<b>Status:</b>	<b>IN PROGRESS</b>
<b>Location:</b>	<b>SCOTT BUILDING (NO. 80), SOUTH SIDE OF MAIN NORTH QUADRANGLE</b>		

Residents and service. The new Scott Project will drive other consolidation and modernization projects that implement the person-centered philosophy of senior care and make campus facilities compliant with current ADA standards and requirements.

Scott Building Replacement and Modernization projects include installation of keyless entry on all Resident units, updating of the wandering alarm and security systems, updating of the fire alarm system, interior and exterior modifications for ADA compliance, and extensive renovations to the Sheridan Building for AL spaces.

**Necessity:**

- The AFRH is condensing all Resident services to the north end of campus and must move LTC and MS Residents out of the existing LaGarde Building
- The old Scott Building was not efficient in terms of energy costs and maintenance costs; the new Scott Building will increase energy and operational efficiency and contribute to compliance requirements under EO 13423 and 13514.
- The old Scott Building did not meet contemporary standards for senior living, and the renovations required to meet these standards were cost prohibitive. New construction will allow the Agency to meet these standards in a cost efficient way
- The old Scott Building was not compatible with the AFRH-W Historic District and blocked a significant historic view from the Lincoln Cottage to downtown Washington, DC; the new Scott Building will achieve a design more sensitive to the Historic District
- The old Scott Building did not meet established accessibility requirements, which was problematic for the large number of Residents who experience physical, sensory, and/or cognitive limitations
- The new Scott Building will serve as the catalyst for improvements to safety and security systems that will benefit a large portion of the campus
- The new Scott Building will help consolidate Resident functions around the existing quadrangle, creating a more unified community and eliminating duplicative and costly operations for the Agency
- The new Scott Building will align the AFRH-W with the “small house” design philosophy for skilled nursing care, in contrast with the institutional setting of the old Scott Building
- The new Scott Building will better accommodate in-house medical care that promotes the concept of Aging in Place
- The new Scott Building will create programmatic and spatial adjacencies to allow ease of mobility for both Residents and staff from room-to-room and from room-to-commons
- The Agency’s CARF accreditation is dependent upon sound financial planning and management, conservation of financial resources, and enhancement of Resident living environments; this project will assist in all of these areas
- The new Scott Building will improve issues of architectural, environmental, and communications accessibility issues that must be addressed for the Agency’s CARF accreditation



*Approximate Site plan for Sheridan Plaza at the northeast corner of the new building*

## IT HUB RELOCATION (GSA-MANAGED)

### Description:

The Agency relocated its IT Hub from the AFRH-W old Scott Building to the basement of the Sherman Building (corridor and rooms G01, G02, G04). Various interior changes were minor in scope and included: new wall and floor penetrations for conduit, construction of walls for mounting of IT equipment, alterations to provide required fire rating, removal of piping and non-original finishes, installation of new ducts and finishes, and installation of IT equipment for all campus communications.



*Construction of a new IT Hub room at AFRH-W*

Interior work also included the storage and/or relocation of the AFRH memorabilia that was displayed in these basement rooms. The exterior work involved installation of four condenser units in the areaway on the west side of the building to meet mechanical requirements, as well as trenching to route new cable from the Sherman Building to Quarters 8. Trenching occurred across the Lincoln Cottage grounds, but the path was routed as far south as possible to avoid direct effects to the Lincoln Cottage and identified areas of archeological sensitivity. All other IT connections were routed through existing conduits.

### Necessity:

- The IT Hub had to be relocated before the old Scott Building was demolished in 2011-12
- All phone and Internet connections run through the IT Hub, and all campus operations, including security, administration, and maintenance are dependent on the IT Hub
- The Agency's CARF accreditation is dependent upon sound financial planning and management, and safeguarding Resident and Agency information. IT improvements and new operational space for IT assist in all of these areas
- Relocation of the IT Hub was necessary to protect personally identifiable Resident information, which is necessary to comply with HIPAA
- This project was necessary to support the implementation of the Scott Building Replacement, and thus also contributes to safety and security of the Residents and staff, the financial impact on Agency operations, the reputation of AFRH, and compliance with applicable regulations

**Lead:** AFRH-AGENCY

**Begins:** FY10

**Manager:** GSA

**Status:** COMPLETED

**Location:** SHERMAN BUILDING (NO. 14), BASEMENT INTERIOR AND EXTERIOR

## NEW CHILLER (GSA-MANAGED)



*New cooling tower and interior view of new chiller at AFRH-W*

### **Description:**

The AFRH created a new chilled water plant in the Sheridan Building and constructed an on-grade cooling tower, approximately 27 feet in height and 46 feet in length. The enclosure of the tower is constructed on a CMU base with red brick masonry walls and metal louvers. The tower is located in the northeast corner of Parking Lot 5, adjacent to the North Capitol Street boundary of the campus. The tower has been designed to minimize noise disturbance for the Residents in the Sheridan Building.

### **Necessity:**

- The old chiller plant was located in the basement of the old Scott Building, and the previous cooling tower was located on the roof of the old Scott Building. The demolition of the Scott Building necessitated the relocation of the plant and tower
- The relocation of the cooling tower away from Resident spaces helps reduce noise and minimize visibility of the tower from the historic quadrangle
- This project was necessary to support the implementation of the Scott Building Replacement, and thus also contributes to safety and security of the Residents and personnel, financial impact on Agency operations, the reputation of AFRH, and compliance with applicable regulations

**Lead:** AFRH-AGENCY

**Begins:** FY10

**Manager:** GSA

**Status:** COMPLETED

**Location:** PARKING LOT 5, NEAR NORTH CAPITOL STREET BOUNDARY

# SHERMAN-SCOTT SIDEWALK REALIGNMENT (GSA-MANAGED)

Project

### Description:

The AFRH will realign the pedestrian connection between the Sherman Building and the new Scott Building to directly align with the entrances of the two buildings. The existing landscaping, site furnishings, lighting, and flagpole will be relocated and reconfigured accordingly.

In addition to the realignment of the pedestrian connection and associated landscaping and furnishings, AFRH will simultaneously add a communications conduit connecting the Sherman and Scott Buildings, running adjacent to the new walkway approximately one foot below the surface.

The conduit will include six four-inch pipes within a rectangular concrete casing measuring about 18"-12" across and 18" deep. All ground disturbance will be contained within the approved work area; archaeological investigations have already been completed for this location and revealed nothing to prevent the completion of this work.



*View of pedestrian connection before demolition of the old Scott Building*

### Necessity:

- Realigning the pedestrian connection will reinforce the north-south axis through the campus that was diminished by the construction of the old Scott Building, but has been restored by the design of the new Scott Building
- The National Capital Planning Commission (NCPC) approved the new Scott Building design, yet stipulated a recommendation that the Agency evaluate the alignment of the pedestrian connection
- The realignment of the pedestrian connection was strongly encouraged by the Commission of Fine Arts during its review of the design for the new Scott Building
- The communications conduit will provide the new Scott Building with sufficient telephone connections to accommodate full capacity at the facility

**Lead:** AFRH-AGENCY

**Begins:** FY12

**Manager:** GSA

**Status:** IN PROGRESS

**Location:** MAIN NORTH QUADRANGLE BETWEEN BUILDING 14 AND BUILDING 80

# EXTERIOR RENOVATIONS FOR ASSISTED LIVING (GSA-MANAGED)

**Description:**

The AFRH will move its AL Residents and equipment from the LaGarde Building to the second and third floors of the two southern towers of the Sheridan Building. The exterior of the Sheridan Building will be altered to accommodate the new program on the interior of the building. The existing masonry panels outside the corner rooms on the second and third floors at the south end of the Sheridan Building will be removed, and the existing punched openings will be expanded to accommodate floor-to-ceiling glass. The increased glazing will dramatically improve visibility to the exterior from new AL day rooms and activity spaces.



Project

*Artist's rendering of proposed exterior renovations*

**Necessity:**

- Relocating AL Residents from the LaGarde Building to the Sheridan Building is the primary component of consolidating the Home's operations in the north end of the campus and is crucial to decreasing operating costs for the Agency. Changes to the Sheridan Building are required to accommodate this
- This project contributes to the Person-centered Care goals related to the Agency's CARF accreditation
- Providing more modern, light-filled spaces will greatly enhance the attraction of the facility to new and potential AFRH-W Residents and their families
- AL Residents may have limited mobility and may not be able to fully enjoy the amenities and common areas that the Agency provides on other parts of the campus. Increasing the visibility of the campus from day rooms and activity rooms is an important part of providing a comfortable, appealing, and calming setting for AL Residents, while also providing a sense of connection between these Residents and the activities taking place outside the building

**Lead:** AFRH-WASHINGTON

**Begins:** FY12

**Manager:** GSA

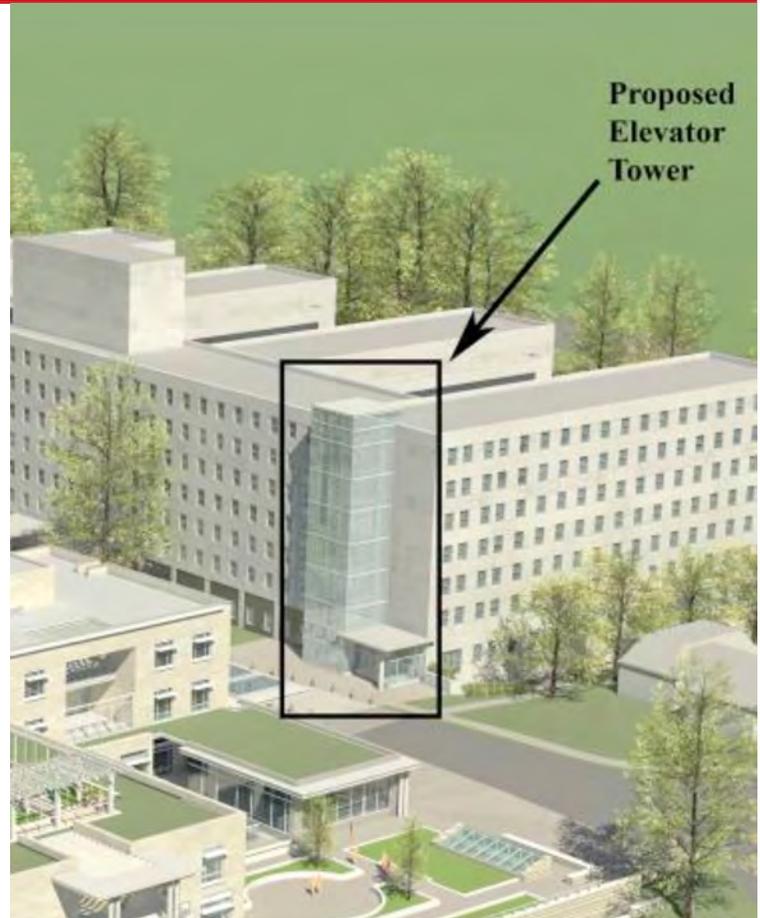
**Status:** IN PROGRESS

**Location:** SHERIDAN BUILDING (NO. 17), EXTERIOR AT SOUTHWEST CORNER

# NEW SHERIDAN BUILDING ELEVATORS (GSA-MANAGED)

**Description:**

The AFRH will build a new glass / steel elevator tower for the Sheridan Building, which is required for closing the LaGarde Building and moving AL Residents to the 2nd and 3rd floors of the Sheridan Building south towers. New elevators will be used by all Residents to access all Sheridan floors – as well as for food service to use between the new Scott Building kitchen and the relocated AL Residents in the Sheridan. They will also assist in moving supplies and delivering services between the new Scott Building and the two AL floors. Staff will also use new elevators to transport AL Residents to the wellness clinic, offices, and activity spaces in the new Scott. The new tower will house two elevator shafts and will infill a section of the recessed bay of the southwest corner.



**Necessity:**

- The new elevators will minimize the distance for transporting meals between the kitchen and the AL floors of the Sheridan Building, making food service more efficient and cost effective
- Transporting bulk food a shorter distance between the kitchen and AL floors will contribute to a higher quality of food where hot and cold temperatures are maintained during transit
- The AFRH seeks to minimize food travel distance and avoid moving food through common areas. The existing elevators require dining staff to travel through the central activity spaces and the primary corridors of the Sheridan Building to access AL Residents. Yet, new elevators will allow staff to move directly to AL from the service tunnel between the new Scott Building and the Sheridan Building
- The new elevators will provide additional convenience and mobility to all Residents traveling from the new Scott Building to the Sheridan building, as the elevators will serve all floors of Sheridan
- New elevators will minimize travel distance for transporting AL Residents to the wellness clinic in the new Scott Building, which improves safety and comfort for Residents and personnel
- New elevators will minimize travel distance to the new Scott Building for all IL Residents in the south towers of the Sheridan Building, which is vital for many who have decreased mobility
- Elevators used to transport AL Residents on stretchers must allow enough space for additional medical equipment and for larger than typical patients and medics, per building code requirements. The existing elevators in the Sheridan building can accommodate a stretcher on a diagonal, but they do not provide enough additional space. The new elevators will meet existing code

**Lead:** AFRH-WASHINGTON

**Begins:** FY12

**Manager:** GSA

**Status:** IN PROGRESS

**Location:** SHERIDAN BUILDING (NO. 17), EXTERIOR AT SOUTHWEST CORNER

- Maximizing the Residents' efficient and safe utilization of their living environment, promoting their access to supportive services, and enhancing the quality of food service are all important components of Person-centered Care, a key focus of CARF accreditation
- Enhancing the Residents' ability to safely and more easily move throughout the Sheridan Building will meet the goals for environmental and communications accessibility stated in CARF Quality Standards



*New Sheridan elevator tower under construction*

# SHERMAN BUILDING TRANSITION\*

Project



*Climate-controlled tunnel to temporary dining hall*



*Interim Sherman Dining Hall  
(moved to Sheridan Building in 2011 due to earthquake)*

**Description:**

*\*The August 2011 earthquake in Washington, DC caused significant damage to the Sherman Building, Sherman Annex, and Sherman North. The temporary activities that were operating in these buildings as a result of this project were all relocated in the aftermath of the disaster.*

The AFRH placed temporary facilities in the Sherman Building, Sherman Annex, and Sherman North to allow for the continuation of essential operations during the construction of the new Scott Building. The basements and first floors of these buildings housed a dining facility, a theater, and a multi-purpose room. Alterations were required to existing elevators, restrooms, finishes, and site to accommodate the temporary uses and the increased Resident traffic.

These uses will be relocated to the new Scott Building after completion in 2013. The first floors of the Sherman Annex and Sherman North were converted into a temporary dining facility that was used by all AFRH-W Residents.

The existing kitchen facility has been retained in the LaGarde Building, and food is transferred from the kitchen to the temporary dining facility where the food is served. Interior alterations for dining included the construction of partial-height partitions for dish washing, trash, locker rooms, the installation of required window vents and a trash chute, and installation of new floor treatments and furnishings.

In the Sherman Annex, a temporary theater facility was accommodated by the removal of non-original partitions and construction of a small projection room. Restrooms on the first floor and basement level of the Sherman Building were renovated to accommodate Residents, and surface treatments in the basement-level corridor of the Sherman Annex and Sherman Building were refreshed to respond to an increase in Resident traffic through the spaces.

To accommodate use of the elevator in Sherman North by dining service staff, the previous elevator cab was replaced, and the elevator mechanical room conditioned and fire-rated to meet code. An existing basement-level room in the Sherman Building served as a multi-purpose room for meditation, bingo, and cards. Asbestos floor tiles were removed and abated in the dining area, theater, and second-floor corridor of Sherman North.

<b>Lead:</b>	<b>AFRH-WASHINGTON</b>	<b>Begins:</b>	<b>FY11</b>
<b>Manager:</b>	<b>OFFICE OF CAMPUS OPERATIONS</b>	<b>Status:</b>	<b>COMPLETED</b>
<b>Location:</b>	<b>SHERMAN BUILDING (NO. 14), SHERMAN ANNEX (NO. 15), SHERMAN NORTH (NO. 16)</b>		

On the building exterior, the AFRH constructed a concrete pad for a temporary trash compactor and dumpster. A new wheelchair-accessible route has been provided between the Sheridan Building and the east side of the Sherman Building by trenching a ramped walkway into the parking lot and constructing an interim ramp in the areaway surrounding the Sherman Building. A small section of the existing areaway wall was temporarily removed where the trenched ramp enters the areaway. A temporary cover for this new path provides Resident shelter during inclement weather.

***Necessity:***

- Temporary spaces must be provided for dining and entertainment to accommodate the transition from the demolition of the Scott Building (2011-12) to the construction of the new Scott Building (estimated completion 2013)
- Temporary accommodations were located in the Sherman Building to keep program space in close proximity to Residents, most of whom are housed in the adjacent Sheridan Building
- This project was necessary to support the implementation of the Scott Building Replacement, and thus also contributes to safety and security of the Residents and personnel, financial impact on Agency operations, the reputation of the AFRH, and compliance with applicable regulations

# SHERIDAN RESIDENCE TRANSITION

Project



*The library was also moved to Sheridan for resident convenience*



*The reception desk was moved to Sheridan during the transition*

**Description:**

To accommodate the demolition of the old Scott Building and the temporary relocation of facilities located in that building, AFRH-W remodeled the first floor of the Sheridan Building for new temporary uses.

The 1300 wing now houses Resident Services, and the 1400 wing and main south hallway now house Wellness Services. Some modification of previous Resident rooms was required for the accommodation of wellness spaces, including removing and rebuilding shelves, converting a closet to an eye inspection room, installing blackout blinds, mounting partitions, and installing desks.

A reception desk was moved into the hallway to control access to the wellness spaces. Rooms that were slated for alteration were previously Resident rooms and are mostly vacant.

Other temporary modifications within the Sheridan Building are:

- The Pentagon Federal Credit Union moved into the old wrapping room, requiring the addition of an ATM, store-front glass, and a data room
- A new canteen operates out of one of the previous wood shop rooms in the basement
- The mail storage room was converted into a wrapping room
- Several areas on the 2nd through the 7th floors were converted from day areas to libraries
- A moving platform was added to the loading dock behind the Post Office to accommodate deliveries that would otherwise be blocked by a temporary smoking shelter, and
- A second sliding-glass door was installed in Sheridan Building north entrance, adjacent to the existing one, for additional traffic to the temporary dining facilities in the Sherman Building

<b>Lead:</b>	<b>AFRH-WASHINGTON</b>	<b>Begins:</b>	<b>FY11</b>
<b>Manager:</b>	<b>OFFICE OF CAMPUS OPERATIONS</b>	<b>Status:</b>	<b>COMPLETED</b>
<b>Location:</b>	<b>SHERIDAN BUILDING (NO. 17), INTERIOR</b>		

**Necessity:**

- Temporary spaces had to be provided for wellness, Resident services, and other required programming to accommodate the transition from the demolition of the old Scott Building (2011) to the construction of the new Scott Building (estimated completion 2013)
- Temporary accommodations were relocated in the Sheridan Building to keep program space in close proximity to Residents, most of who are housed in the Sheridan Building
- This project was necessary to support the implementation of the Scott Building Replacement, and thus contributes to safety and security of the Residents and personnel, financial impact on the Agency's operations, the reputation of the AFRH, and compliance with applicable regulations

# PROJECT SET: ENVIRONMENTAL AND SYSTEMS

The Environmental and Systems capital improvement projects are part of the Agency's effort to measure, report, and reduce energy and water consumption, waste generation, and greenhouse gas (GHG) emissions while improving operational efficiency. This effort has become a core component of Agency operations in response to the 2007 signing of Executive Order (EO) 13423: Strengthening Federal Environmental, Energy, and Transportation Management, as well as the 2009 signing of EO 13514: Federal Leadership in Environmental, Energy, and Economic Performance.

These Executive Orders require the implementation of a wide range of sustainable practices for all Federal agencies. Executive Order 13423 directs agencies to improve energy efficiency; use renewable energy sources; reduce water consumption intensity; use sustainable environmental practices in acquisitions of goods and services; reduce pollution and use recycling programs; ensure sustainable design and high-performance buildings; ensure sustainable practices in operations of motor vehicles; and to ensure proper electronics stewardship.

Executive Order 13514 expands and deepens these provisions, adding a requirement that agencies develop a greenhouse gas (GHG) inventory and take steps to reduce GHG emissions.

AFRH is pursuing opportunities to mitigate its environmental impact in response to these Executive Orders. As part of this effort, AFRH has identified capital improvement projects that will promote operational efficiency and sustainability. Building energy audits and renewable energy opportunity assessments have been completed at both campuses to identify cost-effective energy efficiency, water efficiency, and renewable/alternative energy project opportunities. AFRH has prioritized these opportunities according to cost, compliance, and technical considerations and has integrated select projects into the Capital Improvement Plan.

Environmental and Systems projects will also benefit the Agency by reducing its long-term utility expenses. They will help to mitigate rising electricity, fuel, and water prices, which represent a substantial and increasing burden on AFRH's operating costs. The aging infrastructure and buildings at the Washington Campus present numerous opportunities for improvements, but also the challenge of balancing historic preservation and senior care requirements with operational efficiency. AFRH has established a review process to ensure that it only undertakes Environmental and Systems projects that are consistent with all of these requirements.

The following projects each have a key environmental or energy component and respond to goals and standards set forth in Executive Orders 13423 and 13514:

1. Heating System Replacement
2. Sheridan Building Envelope Improvements
3. Water, Gas, and Electric Meter Systems
4. Water Infrastructure Repair
5. Quarters Interior Renovations



## Environmental and Systems Projects Considerations:

### Funding and Additional Projects

In addition to the broad range of Environmental and Systems projects that AFRH will implement as part of the CIP, the Agency will also consider other potential improvements to meet its long-term goals and milestones related to Executive Orders 13423 and 13514. These projects will further reduce the Agency's utility and operational expenses and demonstrate the Agency's commitment to efficiency and sustainability.

Due to the high initial capital investments that many energy-efficiency projects demand, AFRH cannot plan for all of its intended improvements within the bounds of its annual capital resources. AFRH remains dedicated to meeting its goals under EO 13423 and 13514, and plans to explore third-party financing options for energy efficiency and renewable energy projects in the Capital Improvement Plan.

There are two financing options that appear to be the most compatible with AFRH's operations:

- **Energy Service Performance Contracts (ESPC):** Under an ESPC, an energy services company (ESCO) would incur the costs of implementing energy efficiency and renewable energy projects at AFRH. The ESCO would arrange to provide the project capital through third-party financial institutions. AFRH would pay an agreed-upon portion of all measured and verified energy cost savings to the ESCO while keeping the rest of the savings for itself. This "shared savings" structure ensures that payments to the ESCO would never exceed actual savings in a given year.

As a federal Agency, AFRH would be able to take advantage of the Department of Energy's Federal Energy Management Program's (FEMP) ESPC guidance and support. This is a free service the DOE provides to help Federal agencies develop ESPC projects that are technically, legally, and financially sound.

The screening and preparation process for hiring an ESCO can take from a few months to more than a year, as can project development after the contract has been awarded. Contracts undertaken through the DOE ESPC program can have a maximum duration of up to 25 years, and operations and maintenance of energy efficiency and renewable energy projects are typically covered by the ESCO. Because of the uncertainty surrounding the schedule of an ESPC, the projects listed on the following page are considered to be at the concept level, and have not been incorporated into the timeline of CIP projects.

- **Utility Energy Service Contract (UESC):** Under an UESC, AFRH would partner with its local utilities (Mississippi Power in Gulfport and Pepco in Washington), rather than an ESCO, to finance energy efficiency and renewable energy projects. The utility would provide energy and water efficiency improvements, demand side management improvements, and possibly renewable energy generation. The project financing and repayment process is similar to that under an ESPC, and utilities often subcontract to ESCOs under an UESC. Utilities companies, however, may be able to offer better financing, easier grid connectivity, and the ease of partnering with a utility with whom AFRH already has an established relationship.

The ESPC and UESC structures are most likely the avenues that AFRH will pursue, but there are two additional third-party financing strategies under consideration:

- **Energy Service Agreements (ESA):** An ESA adds an additional layer to the ESPC model. Under an ESA, an investment fund would serve as a point of contact with AFRH and manage the process of hiring an ESCO. The ESCO would then establish an ESPC with AFRH to finance energy efficiency and renewable energy projects to be funded by the investment fund.
- **Power Purchase Agreement (PPA):** Under a PPA, a provider would finance and install renewable electricity generation capacity on-site at AFRH, then sell the green electricity produced by these technologies to AFRH at a prefixed price. However, the PPA model is not applicable to energy efficiency projects and is typically used to finance larger-scale renewable energy projects (i.e. above 500kw).

AFRH will implement these projects to the extent possible during the timeline of this Capital Improvement Plan through the funding options described on the previous page:

<b>Interior Light Sensors</b>	The AFRH will install infrared light sensors in commonly used interior spaces in the Sherman and Sheridan Buildings where traditional light switches exist. Targeted locations include common rooms, common restrooms, and possibly individual Resident rooms and/or bathrooms. Infrared sensors are designed to sense occupancy rather than motion. Infrared sensors may be programmed for activity during specific times, or they can accommodate manual controls as needed.
<b>Sherman &amp; Sheridan Lighting Upgrades</b>	AFRH will consider lighting upgrades in the Sherman Building to improve energy and operational efficiency. Upgrades may include any combination of the following: reducing the wattage of existing lamps and ballasts, replacing existing incandescent lamps with equivalent compact fluorescent lamps, de-lamping from four lamps to two lamps in areas that are overlit, and installing new efficient LED fixtures. AFRH will take steps to ensure that lighting upgrades do not negatively impact lighting hue and meet requirements for safe light levels for retirement communities.
<b>Sheridan HVAC System Updates</b>	AFRH will consider several updates to the HVAC system for Sheridan Building to meet the current needs of the facility including: modification to the heating systems to eliminate simultaneous heating and cooling; retrofit of the chilled water systems to reset the chilled water and condenser water temperatures through integrated control strategies; and modification to the ventilation systems. Additionally, AFRH may install a variable speed drive for Air-handling system 10 (AHU 10).
<b>Solar Photovoltaic Parking Shelters</b>	AFRH will consider the installation of solar Photovoltaic (PV) panels in Parking Lot 5 in an elevated structure (“canopy”) above parked cars. Canopies will be designed to minimize (or completely avoid) loss of parking spaces, allowing continued use of the parking lot while generating renewable electricity from the solar PV panels. This installation would have approximately 150kWDC rated capacity with an annual energy production of approximately 187,500AC kWh/yr.
<b>Water Efficiency Improvements</b>	AFRH may install sink aerators, showerheads, and toilets to improve the end-use water efficiency of the Washington campus. Standard-flow sink aerators would be replaced with low-flow aerators, toilets would be replaced with more efficient 1.6 gallon-per-flush toilets, and standard-flow showerheads would be replaced with low-flow showerheads. AFRH would ensure that convenience for staff and residents is maintained as part of all water efficiency improvements.
<b>Vending Machine Controls</b>	AFRH will consider installing controls to improve the energy efficiency and lifespan of its vending machines throughout the Washington campus. Vending machines are very energy intensive and usually operate at full capacity even when they are not in use. These controls detect motion at the vending machines, turning off lighting and managing compressor cooling cycles when they are not needed.
<b>Rooftop Solar Thermal or Photovoltaic</b>	AFRH will consider installing a solar water heating system (SWH) or solar photovoltaic (PV) panels on the roof of the Sheridan Building to generate hot water and/or electricity. SWH and solar PV are not mutually exclusive because they use the same space; as such, AFRH will

**Rooftop Solar Thermal or Photovoltaic (cont'd)**

consider systems marketed that generate both, if possible. Because the installation of any roof mounted solar technology requires that the roof membrane has 15 to 20 years of useful life remaining, AFRH would only consider this project after the next phase of roof repairs.

**Sherman Solar Shingles**

As part of the Sherman Building renovation, AFRH will replace the existing roof. The option to use solar photovoltaic (PV) shingles as an alternative to conventional roofing materials during this renovation will meet both sustainability and historic preservation requirements. Solar PV shingles are solar cells designed to look like conventional asphalt shingles to achieve consistency with the historic character of the building.





- Maintaining appropriate environmental conditions for Residents is key for CARF accreditation
- Depending on the replacement system, it is likely that the new boilers will improve fuel combustion efficiency, reduce line losses, and reduce overall natural gas consumption. If CHP fuel cells or microturbines are used, they will likely generate electricity with fewer greenhouse gas emissions per kilowatt-hour than electricity currently purchased from the grid, in addition to improving combustion efficiency for hot water production. These changes will reduce energy consumption and greenhouse gas emissions and contribute to targets under EO 13423 and EO 13514.

# SHERIDAN BUILDING ENVELOPE IMPROVEMENTS



*Exterior details of Sheridan Building at southwest corner*

## **Description:**

The AFRH will increase energy efficiency in the Sheridan Building through improvements to the building envelope and systems. The perimeter of windows will be re-caulked, with window replacement where the seal has been compromised beyond repair. Exterior doors will be fitted with weather stripping and door sweeps. Air intake vents, air handlers, and associated control mechanisms will be replaced.

## **Necessity:**

- Existing windows date from the building's construction and have not been well maintained. Some Residents complain that they can feel air come in around the windows. So, windows need to be recaulked or replaced to improve energy efficiency and Resident comfort
- The intake vents and air handlers are in poor condition causing energy loss via air infiltration
- This project will help AFRH reduce costs and reach goals under EO 13423 and EO 13514
- The Agency's CARF accreditation is dependent upon sound financial planning and management, conservation of financial resources, and enhancement of Resident living environments; this project will assist in all of these areas

**Lead:** AFRH-WASHINGTON

**Begins:** FY14

**Manager:** OFFICE OF CAMPUS OPERATIONS

**Status:** PROGRAMMED

**Location:** SHERIDAN BUILDING (NO. 17)

## WATER, GAS, AND ELECTRIC METER SYSTEMS



Older meter system at the AFRH

### Description:

AFRH will install individual water, gas, and electric meters for each of the occupied buildings occupied by AFRH-W and its tenants to measure the Agency's building-specific energy use, water consumption, and gas consumption. Meters will also be installed for buildings that AFRH anticipates will be occupied in the near future, such as Building 45 and Building 90. All meters will be digitally synced to a central hub that will continuously chart energy usage.

### Necessity:

- The ability to monitor building-specific consumption will help the AFRH meet goals and reporting requirements set under EO 13423 and EO 13514. The intake vents and air handlers are in poor condition causing energy loss via air infiltration
- The meters will enable the AFRH to more easily and accurately identify problem areas to target for improvement by providing a higher quality of energy data collected, such as measuring energy consumption per square footage
- Monitoring energy consumption on campus will help AFRH to manage funds more efficiently, which will support CARF goals of sound financial management and planning
- The AFRH goal to operate green buildings will improve the Agency and campus image

**Lead:** AFRH-WASHINGTON

**Begins:** FY13

**Manager:** OFFICE OF CAMPUS OPERATIONS

**Status:** PROGRAMMED

**Location:** ALL OCCUPIED BUILDINGS WITHIN AFRH ZONE

# WATER INFRASTRUCTURE REPAIR

## Description:

The Agency will replace the aging water infrastructure on the AFRH-W. The four primary connections to the public water system will be maintained. A new system of Schedule 80 PVC (10 inches in diameter or less) and steel (twelve inches in diameter) will be laid. Most of the existing piping will be left in place. Replacement of the water infrastructure will occur over a six-year period in five phases:

### Phase 1/Year 1:

Planning and design.

### Phase 2/Year 2:

Complete first half of the main trunk of the central campus loop for storm, sewer, and water lines. This involves trenching and construction along main roads. This will include installation of lateral tie-ins that are underneath roads so as to minimize disturbance of roads in later phases. Roads that are disturbed during construction will be repaved.

### Phase 3/Year 3:

Complete second half of the main trunk for storm, sewer, and water lines, including lateral tie-ins under roads. Roads that are disturbed during construction will be repaved.

### Phase 4/Year 4:

Install any remaining lateral connections that are necessary from the main loop, and tie-in all buildings to the new system. Many buildings will be tied in to the main 12-inch line, while several of the Quarters buildings will be tied in to the existing eight-inch line that AFRH does not currently use.

### Phase 5/Year 5:

Install fire loops that serve campus hydrants; disconnect & cap old water utilities. Final cap-offs and all clean-up to cover ground disturbance.

## Necessity:

- The existing infrastructure is aging and in poor condition. Some terra cotta piping is still in use. The condition of the system resulted in five major breaks in 2010 alone
- The existing system requires extensive maintenance to operate
- Some valves no longer function properly, making it impossible to isolate parts of the system. This condition results in frequent water shut-offs during maintenance or repairs, which inconveniences the Residents and staff
- There is little existing documentation of previous modifications to the existing system, which makes locating pipes difficult during maintenance and repairs
- A lack of proper maintenance has led to substantial calcium build-up in the pipes, resulting in inefficient water service and less than optimal water pressure
- Parts of the system are at risk of catastrophic failure, which would lead to major cost and operations issues for the Agency

**Lead:** AFRH-WASHINGTON

**Begins:** FY14

**Manager:** OFFICE OF CAMPUS OPERATIONS

**Status:** PROGRAMMED

**Location:** THROUGHOUT AFRH-W CAMPUS

- There are potential health issues associated with an aging system
- The AFRH CARF accreditation is dependent upon sound financial planning and management, maintaining appropriate environmental conditions, and providing a safe and healthy environment for Residents and staff; new water infrastructure will support all of these areas



# QUARTERS INTERIOR RENOVATIONS AND REMODELING

Project



*Typical kitchen in Quarters*



*View of Quarters 45 after remodel, 2012*

**Description:**

The AFRH will renovate the interior finishes and spaces of each of the occupied Quarters, which are currently leased as residences for the AFRH staff. Work will include the repair of plaster walls and ceilings, repainting of interior surfaces (wood trim, plaster, doors, windows), refinishing floors, replacing carpets, restoring operation of fireplaces, renovation of kitchens and bathrooms, and caulking of windows. Work may also include the installation of insulation and upgrading of HVAC systems.

As a subset of this effort, Quarters 45 was the only Quarters to be completely remodeled to prepare the space for new tenants. Interior design consultants provided a new layout for Quarters 45, which AFRH implemented in FY2012. The scope for this building also extended to the exterior as well as the interior, including a new carport structure.

**Necessity:**

- Leasing of the quarters is an existing revenue source for the Agency, and improving the conditions of the quarters will allow the AFRH to justify increased rents to tenants
- Maintenance and preservation of existing historic resources is part of the Agency’s historic preservation compliance under Section 110 of the NHPA
- Residents of the Home have voiced the desire to see the Quarters occupied and maintained
- Renovations may be designed to meet LEED standards for the renovation of existing buildings as part of the Agency’s compliance with EO 13423 and EO 13514

**Lead:** AFRH-WASHINGTON                      **Begins:** FY11  
**Manager:** OFFICE OF CAMPUS OPERATIONS                      **Status:** IN PROGRESS  
**Location:** QUARTERS 1-6 (NOS. 1-6), QUARTERS 45 (NO. 45)

# PROJECT SET: HISTORIC PRESERVATION AND STABILIZATION

This set of capital improvement projects are part of the Agency's efforts to both celebrate the history of the campus and to satisfy the AFRH historic preservation regulatory responsibilities. Preservation of historic resources maintained at AFRH-W is also vital to fulfilling one of the six Guiding Principles of the AFRH, which is to honor the heritage of the US Armed Forces. Maintaining the historic buildings, structures, objects, and landscapes that are located at AFRH-W illustrates the Home's efforts to provide innovative Resident care in a comfortable and therapeutic setting. Advancing and celebrating that history connects current Residents to the Home's rich history and generations of veterans that have preceded them in Washington.

The AFRH-W is recognized as having a national level of historic significance because of the important role it has played in US military history, as well as its history of politics, medicine, agriculture, landscape, and architecture. About 102 historic buildings, structures, and objects, dating from 1842 to 1944, are located here, along with several historically significant landscape features.

As a Federal Agency that manages historically significant properties, the AFRH must comply with all Federal historic preservation regulations of the National Historic Preservation Act of 1966 (NHPA). The Preservation and Stabilization capital improvement projects identified for AFRH-W address two specific obligations under the NHPA, as identified in the AFRH-W Historic Preservation Plan:

- The AFRH must endeavor to keep historic buildings in productive use and consider new uses for underutilized resources
- The Agency must identify preservation needs at AFRH-W and incorporate those into the AFRH budgeting and planning processes

The Home's most pressing preservation need is the recovery of several of its historic buildings following the August 2011 earthquake in Washington, DC. The Agency was forced to close the iconic Sherman Building due to the severe damage sustained by the structure during the earthquake. The Sheridan Building and several Officers' Quarters were also affected. In 2012, AFRH will embark on a substantial stabilization, and reconstruction effort to return the Sherman Building to service and perform necessary repairs to bring all affected buildings back to their pre-earthquake condition.

AFRH will also implement several other preservation projects that reflect the Agency's ongoing preservation program at the Home. Since the Home's establishment in 1851, it has undergone significant shifts in operations, resulting in the vacancy of several historic buildings on the campus. Many of these vacant buildings are located in Zone A, as defined by the AFRH-W Master Plan, and are slated for long-term lease by a third party. The AFRH has identified preservation and stabilization projects for these buildings that will increase their appeal to potential tenants and will assist in the preservation of these buildings and their historic materials until tenants and new uses are identified.

For vacant buildings that will continue to be managed by the AFRH, management proposes capital improve-



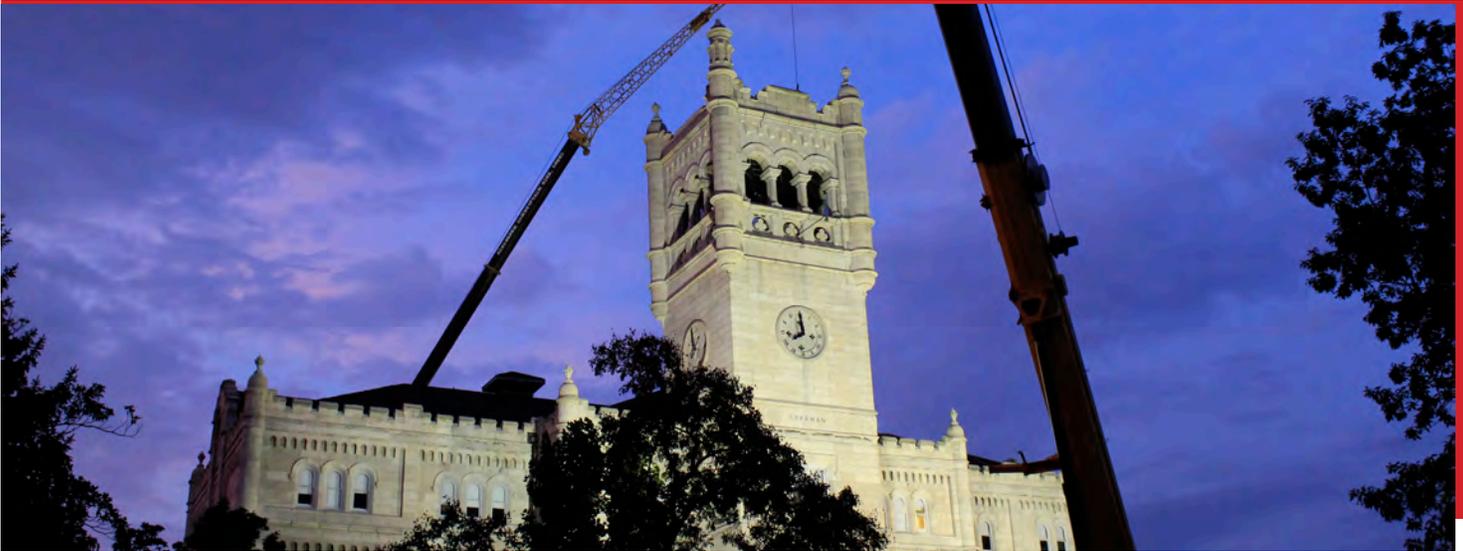
ment projects that will enable AFRH-W to reuse vacant or underutilized buildings in a way that preserves their historic character and restores the value of the buildings to the campus, the Residents, and the Agency. Other capital improvement projects, such as the rehabilitation of the perimeter fence and wall, are required mitigation actions, as identified in the Programmatic Agreement for the AFRH-W Master Plan. AFRH has also identified several projects that address historic resources currently used by the Agency that are in need of improvement or repair.

The Preservation and Stabilization set includes the following discrete projects:

1. Sherman Building Earthquake Recovery
2. Sherman Exterior Rehabilitation
3. Grant Building Parapet Repair
4. Forwood Clock Tower Repair
5. Barnes and Forwood Exterior Painting
6. Quarters Exterior Wood and Porch Repairs
7. Historic Perimeter Fence and Wall Rehabilitation
8. Sherman Clock Tower Renovation



# SHERMAN BUILDING EARTHQUAKE RECOVERY



## Description:

On August 23, 2011, a 5.8-magnitude earthquake hit our nation's capital and severely damaged buildings at AFRH-W. The Sherman Building, the Home's most iconic structure, sustained the most severe damage. Stones originating from the building's ornamental parapet, chimney, and clock tower fell through its roof and around the building perimeter. Many of the stones that remained on the building shifted during the seismic event, creating a dangerous condition around the building site. The structure of the building's clock tower was compromised, requiring immediate stabilization. The interiors of the buildings sustained structural damage, as well, from both the seismic forces and the impact of falling stones. Many sections of the roof were destroyed, leaving the interior open to the elements. In addition to the Sherman Building, the chimneys of Quarters 1 and 2 shifted and partially collapsed, and the Sheridan Building sustained damage to its exterior stone and two of its elevators.

Immediately following the earthquake, AFRH evacuated and closed the Sherman Building due to the severity of its damage. The Agency relocated equipment and reconfigured spaces in the Sheridan Building to provide temporary accommodations for the administrative and dining facilities that were in the Sherman Building prior to the earthquake. The Agency also mobilized a team of engineers and contractors to make temporary repairs to all buildings affected by the earthquake to stabilize structures and ensure the safety of the campus.

Following the Agency's extensive effort to provide temporary accommodations and to stabilize its structures, the Agency will now embark on a full recovery to bring all affected buildings back to their pre-earthquake condition. All structural damage sustained by the Sherman Building will be repaired, and the exterior stonework will be restored. The Sherman Building's ornamental parapet and chimneys will be reconstructed, site features will be restored, and the clock tower structure will be augmented to withstand future seismic events. Damage sustained by the quarters and the Sheridan Building will also be repaired. Throughout all earthquake recovery work, AFRH will ensure the protection and preservation of the landmark through consistency with all relevant standards, guidelines, and requirements. Where possible, AFRH will use the recovery effort as an opportunity to employ innovative technologies and methods that further the Agency's sustainability goals and preservation program. For example, roof repair will include the use of photovoltaic shingles that are compatible with the historic character of the Sherman Building and will provide a renewable energy source to reduce the Agency's greenhouse gas emissions.

**Lead:** AFRH-AGENCY

**Begins:** FY12

**Manager:** OFFICE OF CAMPUS OPERATIONS

**Status:** IN PROGRESS

**Location:** QUARTERS 1-6 (NOS. 1-6), SHERMAN BUILDING (NO. 14), SHERMAN ANNEX (NO. 15), SHERMAN NORTH (NO. 16), SHERIDAN BUILDING (NO. 17)

**Necessity:**

- The Sherman Building (Building 14), Quarters 1, and Quarters 2 comprise much of the Soldiers' and Airmen's Home National Historic Landmark and require the highest level of protection at AFRH-W. Recovery of these historic resources is key to ensuring the preservation of the Home's rich history and historic integrity.
- AFRH's administrative offices and dining facilities were displaced and temporarily relocated in the Sheridan Building and in Quarters 8 due to the earthquake damage; recovery efforts will allow AFRH to move back into its administrative space and once again manage daily operations at its optimum level.
- As a symbol of the Home, restoring operations within the Sherman Building is important to the AFRH administration.
- The Sherman Building is a visual landmark of AFRH-W from points throughout Washington, DC. Its protection and preservation is vital to maintaining a positive public image of the campus.
- The protection and preservation of historic resources is part of the Agency's compliance with Federal historic preservation regulations.
- The Agency's CARF accreditation is dependent upon maintenance of a safe environment that minimizes risk of harm to Residents and staff. The earthquake recovery work will address this CARF goal.



# SHERMAN EXTERIOR REHABILITATION



*Partial east elevation of Sherman Annex*

*Examples of exterior staining and window modifications*

## **Description:**

The AFRH will rehabilitate the exterior of the Sherman Building, Sherman Annex, and Sherman North based on a 2009 study of the building conditions. Many of the exterior conditions will be addressed as part of the earthquake recovery effort, but there are several additional opportunities to improve the condition, operation, and general appearance of the buildings. The primary effort will be focused on the repair of all existing wood windows, the removal of non-functioning louvers and vents, and porch repairs not included in the earthquake recovery scope. The project scope may also include restoration measures that reverse poor previous replacements and repairs including replacement of light fixtures, replacement of all non-original exterior doors, addition of missing cast iron security grilles on basement windows, and uncovering the vaulted ceiling within the front portico.

## **Necessity:**

- Sherman Building is located within the Soldiers' and Airmen's Home National Historic Landmark and is one of four buildings at AFRH-W with a "Key" level of historic significance. Given this, the building requires the highest level of preservation and protection within the AFRH-W Historic District
- The Sherman Building is a visual landmark of AFRH-W from points throughout Washington. Its protection and preservation is vital to maintaining a positive public image of the campus
- The protection and preservation of historic resources is part of the Agency's compliance with Federal historic preservation regulations
- Some previous replacements and repairs have been detrimental to the image of the building, and addressing these conditions would greatly improve the image of the Home's historic quadrangle and the campus in general
- The poor condition of the areaway ("moat") wall is a safety hazard for Residents & staff
- Access to the building does not comply with ADA
- Improvements to the building envelope may lead to a decrease in maintenance issues on the building's interior and improve energy efficiency

**Lead:** AFRH-WASHINGTON

**Begins:** TBD

**Manager:** OFFICE OF CAMPUS OPERATIONS

**Status:** PROGRAMMED

**Location:** SHERMAN BUILDING (NO. 14), SHERMAN ANNEX (NO. 15), SHERMAN NORTH (NO. 16)



# FORWOOD CLOCK TOWER REPAIR

## Description:

The AFRH stabilized the deteriorated wood and iron structure of the Forwood Building clock tower – which was temporarily shored to create a safe environment for repairs. Repairs included the replacement and augmentation of the framing lumber and replacement of deteriorated sections of the tower walls and flooring. Roofing conditions that caused water infiltration in the tower were assessed and repaired as necessary to ensure no further deterioration of the tower or building interiors.

The repair effort also extended to minor renovation work at both King Hall and the LaGarde Building.

## Necessity:

- The deterioration of the tower diminished its structural integrity, and the tower was in danger of collapse
- The condition of the tower created an unsafe environment for staff and potential tenants who might tour the building
- The Forwood Building is located in Zone A and is slated for rehabilitation, lease, and reuse by a third party. Improving the condition of the building makes it more conducive to leasing and increases potential for income from tenants
- The tower is a prominent visual landmark of the AFRH-W from points throughout Washington, DC and is a focal point of the plan for Zone A. Its protection and preservation is important to maintaining a positive public image of the campus
- The condition of the tower resulted in substantial water infiltration on the interior of the building, resulting in severe deterioration of interior historic building fabric
- The operating theater of the Forwood Building is one of the building's most significant interior spaces and is located directly below the clock tower. The stabilization and repair of the tower was crucial to the preservation of the operating theater
- The protection and preservation of historic resources is part of the Agency's compliance with Federal historic preservation regulations



*The Forwood clock tower, showing signs of distress*

**Lead:** AFRH-WASHINGTON

**Begins:** FY11

**Manager:** OFFICE OF CAMPUS OPERATIONS

**Status:** COMPLETED

**Location:** FORWOOD BUILDING (NO. 55), INTERIOR

# BARNES AND FORWOOD EXTERIOR PAINTING

Project



*West balcony of Barnes Building with Forwood tower behind*



*Exterior woodwork on Barnes Building*

**Description:**

The AFRH will repaint the exterior wood and metal surfaces of the Forwood Building and Barnes Building in the historic hospital complex at AFRH-W. Painted surfaces include cornices, windows, doors, porches (columns, floors, ceilings, railings), and other exterior ornamentation.

Prior to painting, surfaces will be prepped, and loose paint will be removed. All paint removal processes will comply with lead abatement regulations set by the EPA in 2010. Surfaces will be repainted using elastic acrylic paint to protect the wood and metal and to encapsulate any lead paint that might remain.

**Necessity:**

- The Forwood and Barnes Buildings are located in Zone A and are slated for rehabilitation, lease, and reuse by a third party. Improving the condition of the buildings will make them more attractive to leasing and will increase potential income from tenants
- The deterioration of the exterior surfaces is causing water infiltration on the buildings' interiors and is leading to destruction of interior historic fabric. Repainting the interiors will retard further deterioration and decrease repair and maintenance costs
- Addressing the deterioration of the buildings will help maintain their structural integrity, creating a safer overall environment
- The poor condition of the buildings' exterior wood is detrimental to the Agency's image
- Protection of exterior surfaces is important to the preservation of these historic resources and is thus part of the Agency's compliance with Federal historic preservation regulations
- Painting of exterior surfaces is part of a general mothballing effort for vacant historic buildings

<b>Lead:</b>	<b>AFRH-WASHINGTON</b>	<b>Begins:</b>	<b>FY19</b>
<b>Manager:</b>	<b>OFFICE OF CAMPUS OPERATIONS</b>	<b>Status:</b>	<b>PROGRAMMED</b>
<b>Location:</b>	<b>BARNES BUILDING (NO. 52), FORWOOD BUILDING (NO. 55), EXTERIORS</b>		

## QUARTERS EXTERIOR WOOD AND PORCH REPAIRS

### Description:

The AFRH will repair and/or replace deteriorated exterior woodwork on the porches of Quarters 1-6 and on the roof soffits of Quarters 1 and 2. Sections of exterior woodwork on the front, rear, and side porches of these Quarters have deteriorated and show various degrees of rot and poor previous repairs. All exterior wood on the Quarters buildings will be repainted as part of the repair process.

### Necessity:

- The deteriorated conditions are a burden on campus operations, requiring frequent maintenance and sporadic repairs
- The conditions of some of the porch structures create safety hazards for residents of the Quarters
- The Quarters are all historically significant, and the maintenance and repair of these buildings is important to preserving the historic character of the campus
- The poor condition of the exterior woodwork detracts from the beauty of the campus
- The Agency's CARF accreditation is dependent upon sound financial planning and management, conservation of financial resources, and enhancement of resident living environments; this project will assist in all of these areas
- Preservation & maintenance of historic buildings is part of the AFRH compliance with NHPA Section 110



*View of Quarters 4 porch*



*Typical porch conditions, 2010*

**Lead:** AFRH-WASHINGTON

**Begins:** FY11

**Manager:** OFFICE OF CAMPUS OPERATIONS

**Status:** IN PROGRESS

**Location:** QUARTERS 1-6 (NOS. 1-6), EXTERIORS

# HISTORIC PERIMETER FENCE AND WALL REHABILITATION

**Description:**

The AFRH will rehabilitate the historic masonry and iron fence and wall that runs along the west and north perimeter of the campus. A conditions assessment of the fence and wall was completed in November 2010 and included recommendations for repair. The brick columns will be repaired, with some reconstruction as necessary. All brick columns will be repointed and repainted. The stone components of the fence, including the knee wall and coping, will be repaired as necessary with select repointing of the wall. The fence will be sanded and painted, with possible replacement of missing components as necessary. Razor wire and other appurtenances that have been applied to the top of the fence will be removed, and a new secondary security system will be designed and installed.

**Necessity:**

- The fence and wall date to the 1870s and are significant resources to the AFRH-W Historic District
- The iron fence has not benefited from regular maintenance, and its condition has been exacerbated by the application of razor wire and chain link on top of the fence. The brick columns of the fence are in poor condition and show signs of structural deterioration or failure. The rehabilitation of the resource is important to minimizing further damage and more costly repairs in the future
- The assessment and repair of the fence and wall is included as a required mitigation action in the AFRH-W Programmatic Agreement
- The project is consistent with the NCPA-approved AFRH-W Master Plan Objectives to encourage the rehabilitation of historic resources; to avoid, minimize, and mitigate adverse effects on Historic District resources; and to respect the character of the adjacent communities
- The fence and wall is one of the only historic resources visible to the public, and the repair of the fence and wall is important to improving the public image of the campus
- Local community groups and neighboring citizens have expressed strong interest in the rehabilitation of the fence and wall
- AFRH-W Residents have expressed concern over the condition of the perimeter wall and fence
- Ensuring perimeter safety and security addresses Agency requirements for its CARF accreditation



Project

**Lead:** AFRH-WASHINGTON                      **Begins:** FY15  
**Manager:** OFFICE OF CAMPUS OPERATIONS                      **Status:** PROGRAMMED  
**Location:** CAMPUS PERIMETER

# SHERMAN BUILDING CLOCK TOWER RENOVATION



## Description:

The AFRH renovated the clock tower of the Sherman Building by replacing the inoperable clock mechanism. The Agency also installed a new digital bell carillon system and upgraded the sound system.

## Necessity:

- The Sherman Building is one of the most historically significant buildings at AFRH-W, as it was originally opened in 1857 to house more veterans
- Renovation of the Sherman clock tower was an important contribution to the building's preservation
- The carillon system is enjoyed by all Residents and celebrates the military heritage of the campus
- The Sherman clock tower is a prominent feature of the campus' main quadrangle, and its upkeep is necessary to maintain the public image of AFRH-W

**Lead:** AFRH-WASHINGTON

**Begins:** FY10

**Manager:** OFFICE OF CAMPUS OPERATIONS

**Status:** COMPLETED

**Location:** SHERMAN BUILDING (NO. 14)

# PROJECT SET: SAFETY AND SECURITY

At the heart of the AFRH Mission is serving Residents. Great attention to their needs, including physical safety and security, defines many of the capital improvement projects for the AFRH-W community. Person-centered care is a key focus of the Agency's CARF accreditation. The mission of CARF is to promote the quality, value and optimal outcomes of services that center on enhancing the lives of the persons served, that is, the AFRH Residents. Key among the CARF principles is the core value that "All people should have access to needed services that achieve optimal results," a belief also shared by AFRH. Toward this goal, AFRH has identified several projects that will enable Residents to benefit from a more supportive lifestyle and to more safely utilize the physical environment in which they reside.

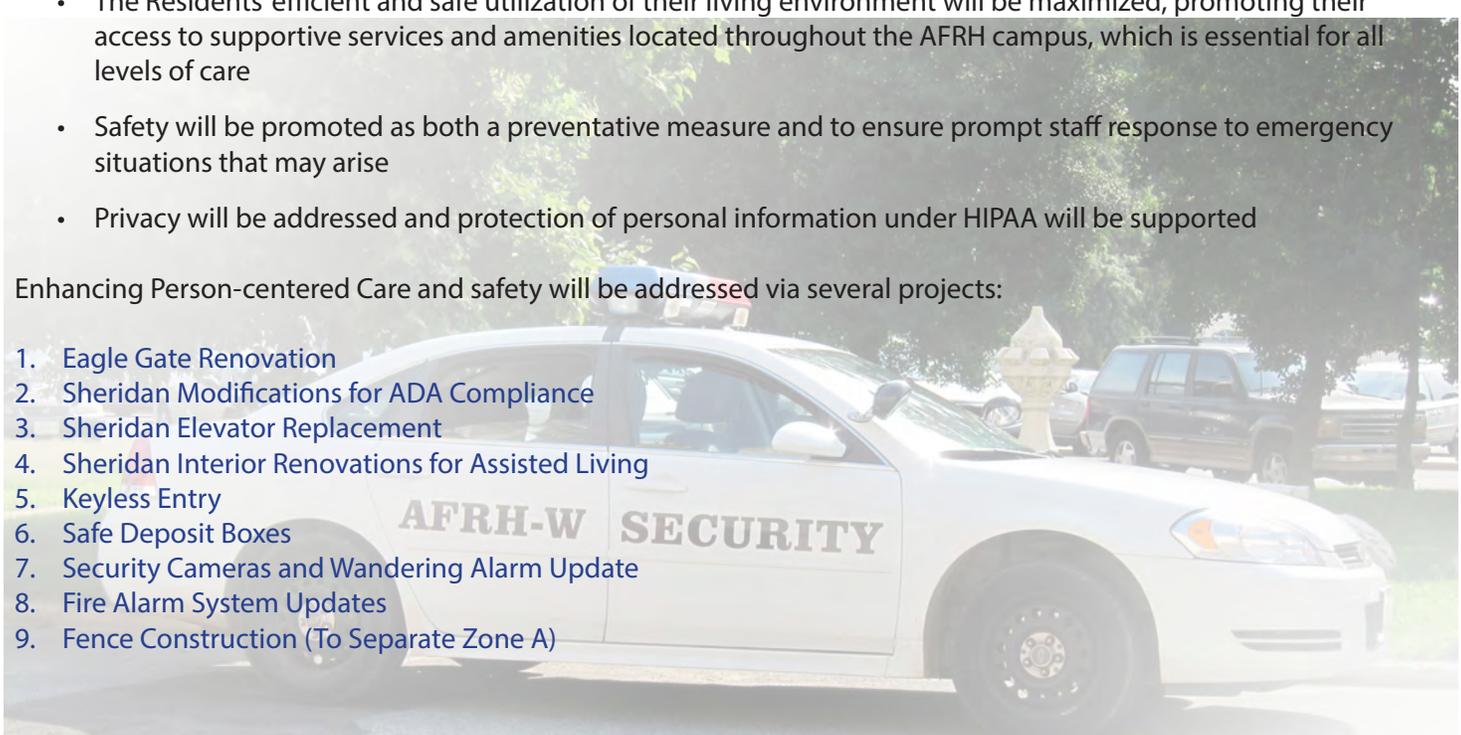
Upon entering AFRH-W, Residents and visitors will benefit from a redesigned Eagle Gate that stresses efficiency and safety for both pedestrians and vehicles. Newly paved and striped roadways and parking areas will also support the more convenient and safer use of the AFRH campus. Assisted Living (AL) Residents will be relocated to one area of the Sheridan Building, thus requiring that both Resident rooms and common areas be adapted for their new use. Interior and exterior renovations to the building will focus on the needs of both AL and Independent Living Residents. Fire and life safety upgrades to Sheridan and other buildings on the campus, including security cameras, the emergency location/response system, fire and smoke detection/alarm systems, and emergency access, are essential for Residents, staff and visitors alike.

The Safety and Security projects will meet many important AFRH goals:

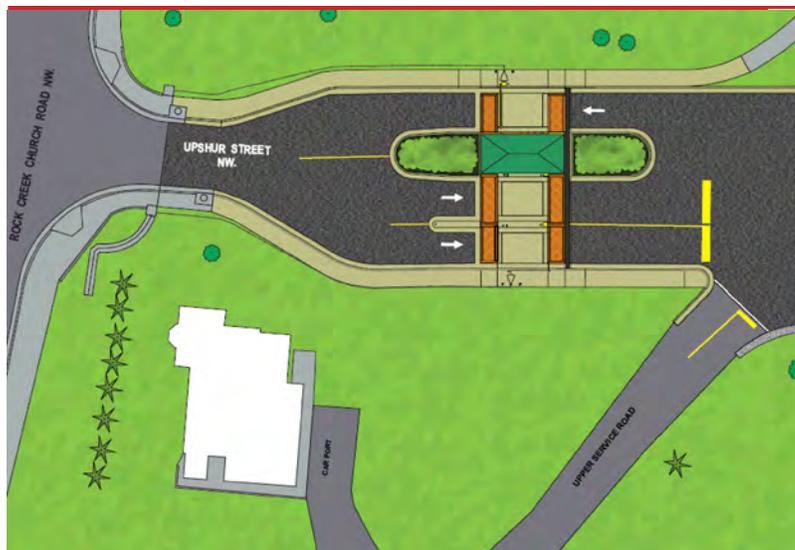
- Existing buildings and outdoor areas which do not currently meet ADA accessibility design standards will be updated to enable Residents with physical, sensory and/or cognitive limitations to more independently utilize and move about their rooms, public and activity spaces, and the grounds
- Service delivery to the Residents will be enhanced, which will at the same time increase operating efficiencies at AFRH
- Resident and staff circulation within and between buildings will be improved and made safer as a result of the replacement of antiquated elevators in the Sheridan Building, the addition of new elevators, and the redesign of the adjacent grounds
- The Residents' efficient and safe utilization of their living environment will be maximized, promoting their access to supportive services and amenities located throughout the AFRH campus, which is essential for all levels of care
- Safety will be promoted as both a preventative measure and to ensure prompt staff response to emergency situations that may arise
- Privacy will be addressed and protection of personal information under HIPAA will be supported

Enhancing Person-centered Care and safety will be addressed via several projects:

1. Eagle Gate Renovation
2. Sheridan Modifications for ADA Compliance
3. Sheridan Elevator Replacement
4. Sheridan Interior Renovations for Assisted Living
5. Keyless Entry
6. Safe Deposit Boxes
7. Security Cameras and Wandering Alarm Update
8. Fire Alarm System Updates
9. Fence Construction (To Separate Zone A)



## EAGLE GATE RENOVATION



*Site plan of proposed Eagle Gate renovations*



*Sketch of proposed design*

### **Description:**

AFRH will improve the security, appearance, and traffic flow through the Eagle Gate. The existing Eagle Gate Guard House, constructed in 1985, will be replaced with a new one-story guard house.

The existing three vehicular traffic lanes will be reconfigured and widened to accommodate a central location for the new guard house and to provide separate entrance lanes for staff and visitors. A new sidewalk will be constructed on the north side of the entrance.

Vehicular and pedestrian traffic control devices will be installed, including control arms at entrance and exit lanes, CAC readers at all access points, and an ADA-compliant swing gate at both the north and south sidewalks. Pavers and a planted median will be installed around the new guard house to improve the appearance of the entrance.

Existing plantings and sections of non-historic fence will be relocated and/or replaced to accommodate the widening of the vehicular lanes and construction of the sidewalk. Energy efficiency will be addressed in the selection of a cooling and heating system for the new guard house.

### **Necessity:**

- The Agency must update its campus security to comply with Homeland Security Presidential Directive 12, including installation of CAC card access
- Traffic flow through Eagle Gate is inefficient. AFRH-W staff often must wait behind visitors who are going through security before entering or exiting the campus. This results in traffic back-ups, especially during peak traffic hours
- Currently, there is a sidewalk on the south side of the entrance but not on the north side of the entrance. Pedestrians must cross vehicular lanes in a high-traffic area to access the facilities on the north side of the campus, such as the Lincoln Cottage visitor's center. This condition creates a safety risk for visitors and Residents

**Lead:** AFRH-WASHINGTON

**Begins:** FY11

**Manager:** OFFICE OF CAMPUS OPERATIONS

**Status:** IN PROGRESS

**Location:** EAGLE GATE GUARD HOUSE (NO. 25), EAGLE GATE LANDSCAPE

- Security guards must cross traffic lanes to assist visitors exiting the campus or to access the driver's side of cars entering the campus. This condition creates a safety risk for security staff
- The Eagle Gate is highly visible to the public, and renovation of the entrance will improve the image of the campus to the adjacent communities, visitors, Residents, and staff
- Providing a safe living environment and enhancing access to the local community are both efforts that support the Agency's CARF accreditation
- The project is included in the AFRH-W Master Plan



# SHERIDAN MODIFICATIONS FOR ADA COMPLIANCE



*North entrance to the Sheridan Building*

*Main entrance to the Sheridan Building*

## **Description:**

The AFRH will make exterior and interior modifications at the Sheridan Building (Building 17) to comply with ADA accessibility design and safety standards. Signage will be designed to be part of a more efficient and memorable wayfinding system. New exterior railings and ramps will be installed at entrances as necessary and possible.

New interior railings will be installed along select corridors. The slope of some exterior sidewalk ramps will be modified, and some new ramps and curb cuts will be implemented.

## **Necessity:**

- The Sheridan Building dates prior to ADA and is not ADA compliant
- Modifications for ADA compliance will support the AFRH goals of maintaining a safe environment, minimizing risk of harm to Residents and staff, and providing adequate architectural and environmental accessibility to facilities, all of which is necessary for the Agency's CARF accreditation
- Creating accessible spaces at AFRH will create a safer environment for Residents and visitors. A safe environment is a priority for Residents, as they often communicate accessibility deficiencies to the AFRH-W staff
- Creating a safe and accessible environment will enhance the image of the campus to current and prospective Residents and their families

**Lead:** AFRH-WASHINGTON

**Begins:** FY13

**Manager:** OFFICE OF CAMPUS OPERATIONS

**Status:** PROGRAMMED

**Location:** SHERIDAN BUILDING (NO. 17)

# SHERIDAN ELEVATOR REPLACEMENT



*Existing elevator bank in Sheridan Building lobby*

## **Description:**

The AFRH will replace the existing five elevators in the Sheridan Building by installing five new ADA-compliant hoist elevators within the existing elevator shafts. Replacement will include new elevators cars, cables, and mechanisms.

## **Necessity:**

- The existing elevators in the Sheridan Building have not been renovated since 1984. The cars look outdated and show significant wear and tear, and replacement would improve the campus image
- The elevators mechanisms are in poor condition and require frequent and costly maintenance
- The elevators break down frequently, creating safety issues for Residents; replacing elevators to function reliably will improve quality of life for Residents
- The elevators are not energy efficient
- Compliance with ADA 2010 accessibility design standards will enhance the Residents' abilities (including those with physical, sensory & cognitive limitations) to more easily and safely use the elevators
- Ensuring a safe living environment and providing architectural, environmental, and communications accessibility are necessary for the Agency's CARF accreditation

**Lead:** AFRH-WASHINGTON

**Begins:** FY19

**Manager:** OFFICE OF CAMPUS OPERATIONS

**Status:** PROGRAMMED

**Location:** SHERIDAN BUILDING (NO. 17), INTERIOR

# SHERIDAN INTERIOR RENOVATIONS FOR ASSISTED LIVING

## Description:

The AFRH will complete interior renovations of the Sheridan Building prior to moving the AL spaces and Residents from the LaGarde Building to the Sheridan Building. Interior spaces on the second and third floors of the southern two towers of the building will be remodeled to provide new day rooms, dining areas, food prep areas, and staff spaces specifically for the AL program.

Resident rooms will be remodeled to be ADA compliant, providing an adequate turning space for wheelchairs and other mobility devices within the bathroom and living/sleeping area, providing access to storage accommodations and environmental controls, enhancing Resident safety, and accommodating the needs of Residents with a wide range of visual, hearing, mobility, and other physical impairments.

## Necessity:

- Closing the LaGarde Building is the primary component of condensing AFRH-W operations onto the north end of the campus and is crucial to decreasing operating costs for the Agency
- Existing spaces in the Sheridan Building cannot adequately accommodate the higher level of care required for AL. The standard of care for AL is the inclusion of dining and activity spaces that are used solely by AL Residents, as well as space programmed specifically for AL Residents and staff. Further, spaces must be accessible for persons with physical, sensory, and cognitive limitations
- Renovations are necessary for optimum levels of safety and accommodation for all AL Residents
- Maintaining a healthy, safe, and clean environment to support quality Person-centered Care is necessary for the Agency's CARF accreditation.
- Creating a new AL Unit that meets ADA design standards also addresses CARF goals for architectural, environmental, and communications accessibility



**Lead:** AFRH-WASHINGTON

**Begins:** FY12

**Manager:** OFFICE OF CAMPUS OPERATIONS

**Status:** IN PROGRESS

**Location:** SHERIDAN BUILDING (NO. 17), INTERIOR

## KEYLESS ENTRY

### **Description:**

The AFRH will install keyless entry on all interior doors in the Sheridan Building and the Sherman Building. All existing door hardware will be removed or modified, and doors will be fitted with proximity card readers that eliminate the need for keys and avoid card swiping.

The card readers will be battery operated to minimize the impact of installation.

### **Necessity:**

- The current key lock system is a burden for campus operations because of the frequent need to re-key locks
- Keys are difficult for many Residents to use, particularly those with arthritis, Parkinson's disease and other conditions that impair grasping and fine motor skills
- Residents are concerned with security and would like to be able to track entries into their rooms
- Improving surveillance capabilities for areas storing Resident health and financial information is consistent with HIPAA regulations
- The Agency's CARF accreditation is dependent upon maintenance of a safe and secure living environment for Residents as well as staff offices and storage accommodations.
- Keyless entry will also address CARF goals for architectural accessibility on campus
- Keyless entry will be an attraction to potential AFRH-W Residents and their families

**Lead:** AFRH-WASHINGTON

**Begins:** FY12

**Manager:** OFFICE OF CAMPUS OPERATIONS

**Status:** PROGRAMMED

**Location:** SHERMAN BUILDING (NO. 14), SHERIDAN BUILDING (NO. 17)

## SAFE DEPOSIT BOXES

### Description:

The AFRH will install one new safe deposit boxes in each Resident room in the Sheridan Building. The safe deposit boxes will either be accessed by the same proximity card readers used to enter resident rooms (per the Keyless Entry project), or by a digital code.

### Necessity:

- Improving capabilities for areas storing Resident health and financial information and providing individual safety deposit boxes are both consistent with HIPAA regulations
- The Agency's CARF accreditation is dependent upon maintenance of a safe and secure living environment for Residents as well as staff offices and storage accommodations
- The previous safe deposit boxes were in the Scott Building, which is being replaced. Providing safety deposit boxes to Residents prior to demolition is a priority
- Currently, a Resident must request that a staff member open his or her safe deposit box, which was located in a single area in the Scott Building. Providing a safety deposit box in each Resident room allows Residents to have 24/7 access to the boxes and greatly reduces the burden on campus operations
- There are currently not enough safe boxes to provide one for each Resident
- Safe deposit boxes will be an attraction to potential AFRH-W Residents and their families



**Lead:** AFRH-WASHINGTON

**Begins:** FY14

**Manager:** OFFICE OF CAMPUS OPERATIONS

**Status:** PROGRAMMED

**Location:** SHERIDAN BUILDING (NO. 17)

## SECURITY CAMERAS AND WANDERING ALARM UPDATE

### Description:

The AFRH will install new security cameras and update the wandering alarm system. A new security facility will be housed in the new Scott Building and will provide an updated security system for the whole campus. The Agency will replace existing outdated security cameras and install new security cameras in select areas of campus that are compatible with the new digital security systems. Most cameras will be placed around entrances and exits to the Sheridan Building, Sherman Building, Stanley Chapel, Eagle Gate, and Rose Chapel. The cameras will be mounted on poles. Some ground disturbance may be necessary if existing light conduit is not usable for connections to the new security cameras. A few interior cameras will be added in common areas. The AFRH will also replace the existing wandering alarm system with an updated system, which will require new pole-mounted boxes and replacement of some Resident alert pendants. The entire security and wandering alarm system will be compatible with similar types of equipment being purchased and installed in the new Scott and Health Care Center as part of The Scott Project. Many of the new emergency response systems display a Resident's important personal medical information when that Resident activates their personal help button, thus alerting staff of the potential need for assistance. HIPAA guidelines will be taken into consideration when selecting and placing such equipment within AFRH-W.



*Personal safety pendant*

### Necessity:

- The existing security system is outdated and depends on VHS tapes. There is limited capacity for new cameras in the existing system. A new digital system will allow for more effective and efficient security operations and for expansion of the security system
- The existing wandering alarm system is outdated. A new system will provide more accurate locating on campus, which will improve response time to distressed Residents
- New wandering alarm system boxes have better coverage, and fewer boxes will be needed, minimizing the visual impact of the system on the campus
- Some individual alert pendants no longer operate properly, creating a safety hazard for Residents
- Providing a more effective wandering alarm system will make Residents feel more secure about leaving their dormitories and will encourage more activity around the campus
- Increased safety and security efforts, minimizing risk of harm to Residents, personnel, and other stakeholders support Agency goals related to its CARF accreditation
- Risk management, health and safety, and technology goals all support AFRH CARF accreditation

**Lead:** AFRH-WASHINGTON

**Begins:** FY13

**Manager:** OFFICE OF CAMPUS OPERATIONS

**Status:** IN DEVELOPMENT

**Location:** SHERIDAN BUILDING (NO. 17), AREAS NEAR POINTS OF ENTRANCE/EGRESS

## FIRE ALARM SYSTEM UPDATES



*Sheridan Building fire alarm control panel*



*Sheridan Building fire alarm annunciator*

### Description:

The AFRH will update the existing fire alarm system in Sheridan Building, Sherman Building, Stanley Chapel, Rose Chapel, Quarters 8, and Quarters 40. The existing systems are outdated and frequently malfunction. New smoke and carbon monoxide sensors will be installed in all rooms. New fire alarm sub-panels will be installed in each building and will be connected to the new fire alarm panel that is part of the design of the new Scott Building. A new PA system with upgraded equipment will be installed and will use existing wiring. The existing sprinkler system will be retained, and a new sensor and alarm system will be connected to the existing flow and tamper switches of the sprinklers. New strobe systems and high frequency alarms will be installed in common areas and Resident rooms to alert Residents with visual and hearing impairments.

### Necessity:

- The existing alarm systems date from the 1970s and are obsolete. Building code requires that obsolete systems be replaced because no replacement parts are available for repair and maintenance. Malfunctioning alarms pose safety and financial risks
- The alarm system in the Sheridan Building frequently malfunctions, which is a nuisance and safety hazard for Residents and staff; AFRH-W receives regular complaints about the system
- Carbon monoxide sensors are currently not installed in all rooms, which poses safety risks
- Existing sound alerts do not meet the new decibel requirements set by ADA regulations, and existing strobe systems are outdated
- The Agency's CARF accreditation is dependent upon maintaining appropriate environmental conditions and providing a safe environment for Residents and staff that minimizes risk of harm. Updating the fire alarm system will contribute to safety on campus. Adding strobe systems and high frequency alarms will support the CARF goal of maximizing environmental and communications accessibility for Residents with physical, sensory, or cognitive limitations

**Lead:** AFRH-WASHINGTON

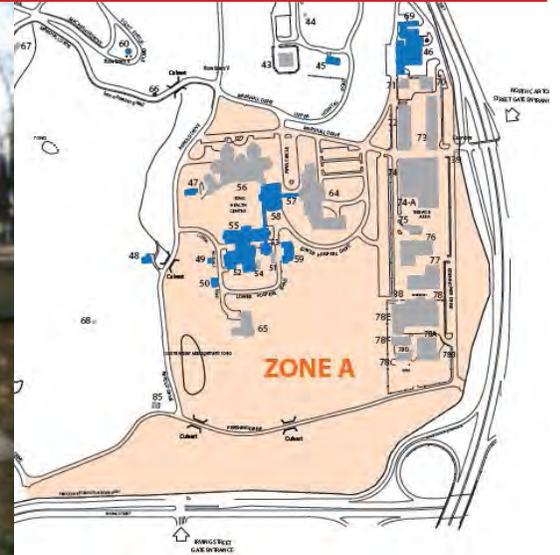
**Begins:** FY12

**Manager:** OFFICE OF CAMPUS OPERATIONS

**Status:** IN DEVELOPMENT

**Location:** QUARTERS 8 (NO. 8), SHERMAN BUILDING (NO. 14), SHERMAN ANNEX (NO. 15), SHERMAN NORTH (NO.16), SHERIDAN BUILDING (NO. 17), STANLEY CHAPEL (NO. 20), QUARTERS 40 (NO. 40), ROSE CHAPEL (NO. 42)

## FENCE CONSTRUCTION (TO SEPARATE ZONE A)



Approximate area of Zone A

### Description:

The AFRH will build a fence separating the AFRH Zone from Zone A on campus. Zone A is approximately 77 acres of the southeast section of the campus and has been identified as excess to the needs of AFRH-W. Redeveloping Zone A will allow AFRH to leverage its real estate and to supplement funds for core operations of the Home and services to Residents. A Master Plan was completed in 2008, with redevelopment guidelines.

The design guidelines specified for this fence are:

“The fence shall not be penetrable except at designated access points. It shall be high enough to deter entry, with the height at any particular location depending on the topography. However, the fence shall not inhibit views or become a visual barrier; people shall be able to see through and/or over the fence. The design of the fence and its access points shall be in keeping with the historic examples extant on the property and not significantly detract from the historic character of the surrounding area. A contemporary, visually subtle design might be used if it is compatible with the historic character.”

### Necessity:

- Per the FY08 Master Plan for the AFRH-W, 77 acres of Zone A are slated for sale or lease. The Master Plan stipulates that a fence should be built along this new security line
- The fence is needed to secure the perimeter of the AFRH Zone, which will continue to house and serve Residents at AFRH-W
- The Agency’s CARF accreditation is dependent upon maintaining appropriate environmental conditions, and providing a safe environment for Residents and staff that minimizes risk of harm.
- Building a fence to enclose the AFRH campus will increase safety and security for Residents, staff, and all visitors at AFRH-W

**Lead:** AFRH-WASHINGTON

**Begins:** FY19

**Manager:** OFFICE OF CAMPUS OPERATIONS

**Status:** PROGRAMMED

**Location:** ALONG THE BOUNDARY SEPARATING AFRH ZONE FROM ZONE A

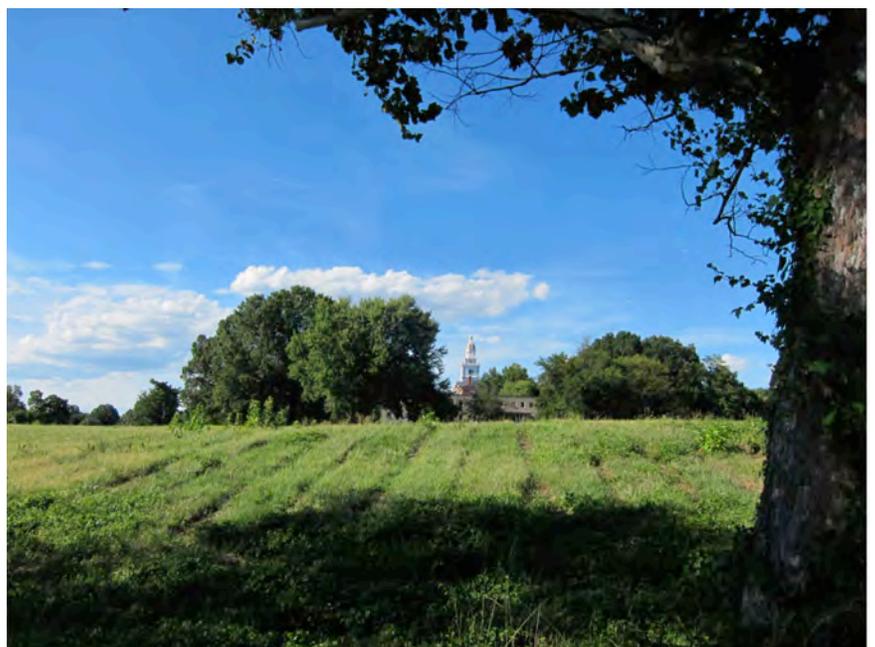
# PROJECT SET: OUTDOOR AND ACTIVITY PROGRAMMING

The Outdoor and Activity Programming capital improvement projects are part of the Agency's effort to restore the campus as an amenity to the organization and to its Residents. As the core operations of AFRH-W are being consolidated at the north end of campus, this program will encourage Resident activity through greater use of and appreciation for the nearly 200 acres in the AFRH Zone. Historically, the campus was designed and used as a park and accommodated a range of recreational activities for Residents and the surrounding community. The AFRH now recognizes an opportunity to restore and celebrate the natural beauty and rich history of its campus, broaden the range of activities offered to Residents, and improve access throughout the campus. Programming will also provide ways for Residents, families, and community members to learn more about the history of the campus and to make the Agency's historic buildings and landscapes valuable resources that differentiate the Home from other retirement communities. Outdoor and Activity Programming includes improvements to roads and pedestrian paths, new community gardens and outdoor gathering areas, a new entrance plaza, updates to indoor activity spaces, and efforts to modernize and improve the golf course. The outdoor program and the specific projects involved to bring this vision to fruition are discussed in further detail in the Master Landscape Plan (MLP) for Washington. The MLP is summarized in this section, but the full document provides a comprehensive concept-level plan for the entirety of the campus.

Outdoor and Activity Programming projects will aim to provide optimal levels of Person-centered Care beyond Resident rooms and common spaces by allowing Residents of various abilities, needs, and interests to use and enjoy the campus. These projects will promote camaraderie, physical activity, independence, and social activity – all of which contribute to a balanced and healthy lifestyle and complement the philosophy of Aging in Place. Planned improvements will encourage and support Resident health and wellness, freedom to move about the campus, and the enjoyment of the natural environment at the Home. This group of projects is closely aligned with the Agency's CARF accreditation, which requires providing appropriate environmental conditions for the benefit of the Residents, as well as architectural and environmental accessibility on campus.

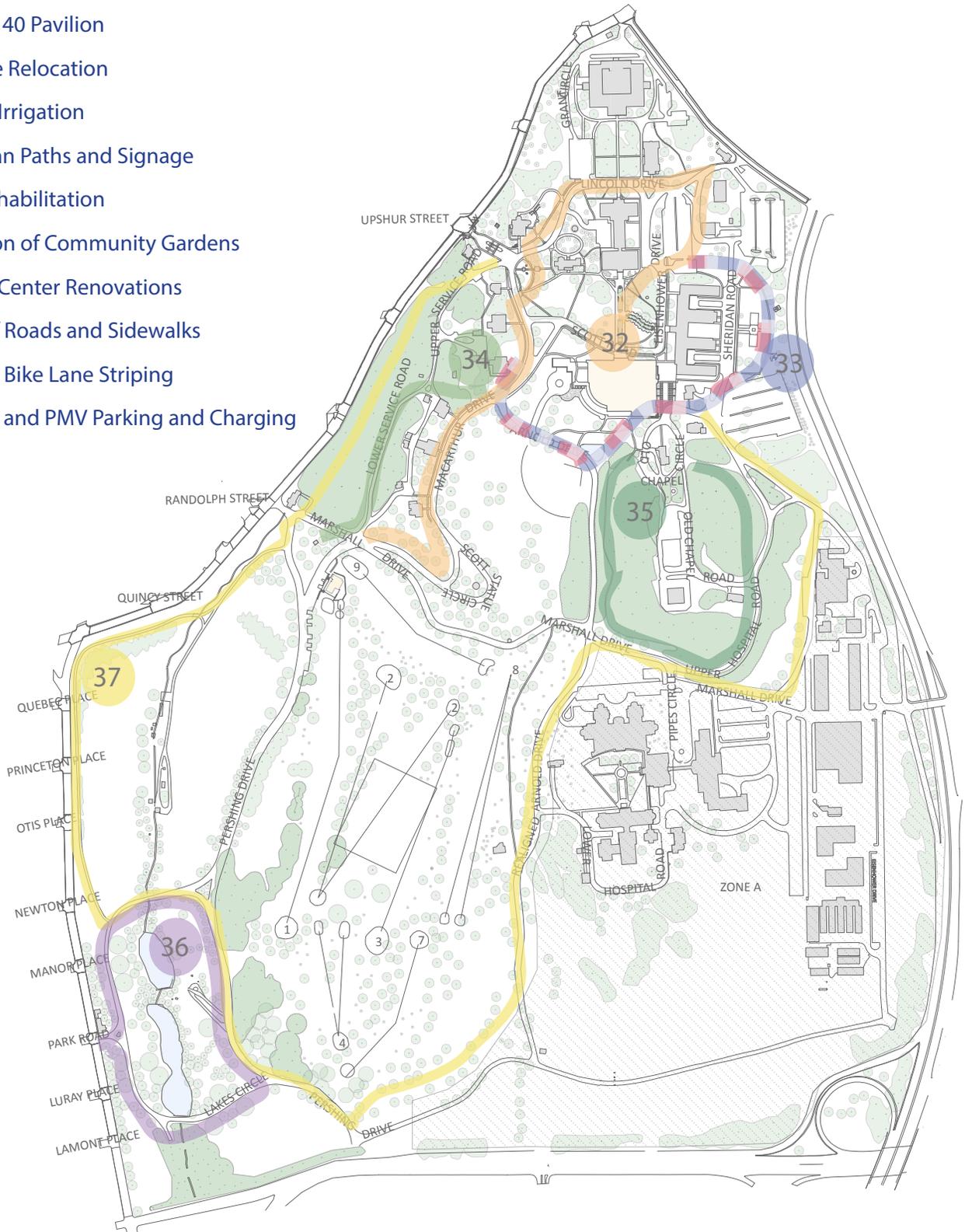
Projects like creating a golf cart parking area near the new Scott Building and moving the community gardens closer to the main quadrangle are part of the Agency's effort to consolidate residential and medical services. They are consistent with the Agency's person-centered approach to care, making outings to the gardens, the lakes, and the golf course more convenient for Residents. At the same time, this will allow AFRH-W to eliminate the costly and environmentally unfriendly shuttle service on campus. Similarly, outdoor improvements at the golf course will not only be immediately valuable for aesthetic and operational reasons, but will also improve the Agency's image to guests, visitors, and potential Residents. The overall effect will be lower costs, increased revenue for the Resident activity fund, and improved operating efficiency for AFRH-W.

The Outdoor and Activity Programming projects will help to achieve several of the Agency's goals: restoring the campus as a natural resource and park for Residents, as it was originally planned; accommodating Person-centered care throughout the campus; meeting and exceeding requirements of CARF accreditation; creating an inviting, comfortable, and easily navigable environment for Residents, personnel, and visitors; and achieving efficient and sustainable campus operations.



Outdoor and Activity Programming includes the following discrete projects:

1. Master Landscape Plan
2. Senior TV
3. Golf Club House Replacement
4. Quarters 40 Pavilion
5. Golf Hole Relocation
6. Campus Irrigation
7. Pedestrian Paths and Signage
8. Lakes Rehabilitation
9. Relocation of Community Gardens
10. Bowling Center Renovations
11. Repair of Roads and Sidewalks
12. PMV and Bike Lane Striping
13. Golf Cart and PMV Parking and Charging



Base image: A map from the Master Landscape Plan showing concepts for proposed trail routes

# MASTER LANDSCAPE PLAN



Project

**Description:**

AFRH is developing Master Landscape Plans (MLPs) for both of its campuses. The MLP for Washington guides AFRH in realizing the potential of its Washington property and restoring the campus as an amenity to residents, staff, and the surrounding community. The MLP supplements the AFRH-W Master Plan (2008) to provide a cohesive program of landscape improvement projects that promotes a therapeutic environment and creates new opportunities for activity and fellowship in the Home’s bucolic setting. These landscape improvements are also part of the Agency’s vision of restoring limited public access to defined areas of the campus and providing opportunities to engage the community in the residents’ experience of the landscape. Implementation of the MLP will achieve the following objectives:

- Beautify the campus;
- Encourage activity throughout the grounds;
- Integrate Agency programming with the landscape;
- Create a welcoming and safe environment;
- Celebrate campus history and military heritage;
- Incorporate and expand sustainability goals; and
- Engage the surrounding community.

AFRH will consider several concept-level projects from the Washington MLP as part of the Outdoor and Activity Programming grouping of the CIP. These projects are not currently included in the CIP schedule or budget, but may be implemented as funding becomes available.

**Lead:** AFRH-WASHINGTON                      **Begins:** FY12  
**Manager:** OFFICE OF CAMPUS OPERATIONS                      **Status:** IN PROGRESS  
**Location:** AFRH-W CAMPUS, ALL

**Necessity:**

- The expansive property and natural resources at AFRH-W are underutilized
- Additional outdoor spaces for gathering, gardening, and recreation will encourage Resident fitness, health, and camaraderie at AFRH-W
- Providing a picturesque and therapeutic landscape for Residents and visitors was an original design intention of the Washington campus, and is a historically significant feature that should be restored
- Educational signage throughout the campus will promote awareness of the rich military heritage at AFRH as well as its nationally-significant historic buildings and landscape features
- A more active and inviting landscape at AFRH-W will provide opportunities to engage with the surrounding community
- Improving outdoor infrastructure and circulation routes to create an accessible landscape is an important initiative to meet Agency goals of both Person-centered Care and ADA compliance
- The Agency’s CARF accreditation is dependent upon maintaining appropriate environmental conditions, and providing a safe environment for Residents and staff that minimizes risk of harm helps to achieve this goal
- A cohesive landscape and planting plan will help to restore the bucolic setting at AFRH-W, and will act as a visual reinforcement that AFRH is a good neighbor and a valuable resource of our nation’s Capital

The development of the MLP is its own discrete project, but it provides scopes and guidelines for several landscape improvement projects that are currently included in the CIP budget and schedule for the next ten years. The MLP contains additional information on the following projects that are included or mentioned in this plan:

<b>The Scott Project</b>	Sherman-Scott Sidewalk Realignment Sheridan Plaza New Scott Building Landscape
<b>Preservation and Stabilization</b>	Perimeter Fence and Wall Rehabilitation
<b>Safety and Security</b>	Fence Between AFRH Zone and Zone A
<b>Outdoor and Activity Programming</b>	Quarters 40 Pavilion Golf Hole Relocation Raised Garden Boxes Golf Club House Replacement Campus Irrigation Lakes Rehabilitation Pedestrian Paths and Signage PMV and Bike Lane Striping Road and Sidewalk Repair Golf Cart and PMV Parking and Charging

The MLP includes the following concept-level Outdoor and Activity Programming projects for future consideration by AFRH:

<b>Outdoor Gathering Areas</b>	AFRH is considering several new outdoor gathering areas to provide attractive, accessible locations for fellowship and activity throughout the AFRH-W landscape. The gathering areas will include seating, as well as accommodations for picnicking. New sites being considered for gathering areas include Scott Statue and the area east of Stanley Hall Chapel.
<b>Meadow Landscape Restoration</b>	AFRH plans for the restoration of the Meadow landscape after construction of the new Scott Building is complete. The meadow will be returned to an open space with expansive views of AFRH’s picturesque landscape and the city beyond.
<b>Scott Statue Viewshed</b>	AFRH will consider pruning and removing overgrown vegetation that obscures the historic viewshed from the Scott Statue to the skyline of Washington, DC.
<b>Woodland Rehabilitation</b>	AFRH will clear much of the overgrown understory and debris of Quarters Woods to improve views of the campus from the public road and accommodate residents, staff, and visitors who want to walk through the natural setting of the woodland.
<b>Quarters 9 Rehabilitation</b>	AFRH envisions using Eagle Gatehouse as a coffee shop to provide an opportunity for interaction between the Home’s residents and the community. Possible rehabilitation efforts will focus on accommodating a new use for the building while maintaining its historic character.
<b>Gatehouse Rehabilitation (Quarters 89 and 90)</b>	AFRH will consider the rehabilitation of Quarters 89 and Quarters 90 at Park Road Gate and Randolph Street Gate, respectively. The repair and adaptive use of these historic gatehouses will provide additional opportunities for programming that supports the use of the adjacent landscape and the potential for public accessibility.
<b>Meditation and Healing Garden</b>	AFRH will consider providing a meditation and healing garden adjacent to Rose Chapel. This area will provide opportunities for residents, staff, and visitors to get away to a peaceful setting. AFRH will also consider adding a contemplative nature area along the proposed Quarters Woods path.
<b>Raised Gardens</b>	AFRH will consider providing raised garden plots for resident use in close proximity to dormitory buildings at the north end of campus. The beds would be on an accessible, impervious surface and at least 30” in height to accommodate vegetable root growth and comfortable seating.
<b>Greenhouse Relocation</b>	In addition to installing raised garden boxes in proximity to the dormitory buildings, AFRH will consider relocating a greenhouse currently not in use from the south end of campus to serve the new gardening area. If moving a greenhouse is not feasible, AFRH will consider purchasing a new greenhouse.

<b>Plane and Tank Rehabilitation</b>	AFRH will clean and repaint the M48 Patton Tank and the F-86 Saber Jet Airplane. In addition to repainting the commemorative objects, AFRH will consider adding informational plaques for the plane and tank.
<b>Commemorative Objects</b>	AFRH will consider the installation of additional commemorative objects on campus to celebrate the military heritage of the Home.
<b>Sheridan-Sherman Landscape</b>	Once the New Scott Building is opened, AFRH will remove the temporary enclosed pedestrian connection between the two buildings and restore the surrounding site to its condition in 2010.
<b>Bridge Rehabilitation</b>	AFRH will consider the rehabilitation of two historic bridges that are located on the north and south ends of the Lakes to beautify the landscape and improve safety in this area.
<b>Sheridan Buffer Plantings</b>	AFRH will consider enhancing the plantings along the eastern fence separating the Sheridan Landscape from North Capitol Street. Supplementing these plantings and removing invasive species would improve the visual and sound boundary in this area; this project would be consistent with the Master Plan.
<b>Community Recreation Areas</b>	To accommodate the use of the southwest corner of the campus for community recreation, AFRH provides guidelines for the design of amenities such as dog parks, picnic areas, recreation fields, and the reuse of the garden plots in the former Alfalfa Field.
<b>Park Trail</b>	In addition to the proposed informative historical and nature trail systems, AFRH will accommodate the design of a Park Trail to be located around the Lakes. The Park Trail will educate the community about the Home's historic use for public recreation and agriculture.
<b>Orientation and Education</b>	AFRH will consider developing a program of orientation and education materials that make the landscape more accessible to residents. The program may include maps and guides, tours, and tools and exhibits that bring the landscape to residents who have limited or no mobility.



# GOLF CLUB HOUSE REPLACEMENT

Project



*Proposed floor plan for new Golf Club House*



*Proposed elevation for new Golf Club House*

**Description:**

AFRH will demolish the existing 1,000 square foot Golf Club House and construct a new 3,000 square foot Golf Club House in the same location on the northwest corner of the AFRH-W Golf Course. The new Club House will provide indoor space for a game room, a vending room, plus men’s and women’s locker rooms. Additional outdoor seating and a golf cart parking area will be provided on the exterior of the club house. The general appearance of the facility will be improved, including new landscaping and hardscaping. AFRH will also incorporate best practices in efficiency and sustainable building design in the construction of the new Club House.

**Necessity:**

- The existing Golf Club House was built in 1974; the facility and its aesthetic nature are outdated
- The AFRH-W Golf Course is an important component of public relations for the Agency, and the modernization of its facilities will greatly improve the image of the Agency and campus
- The project is included as part of the NCPC-approved AFRH-W Master Plan and is thus in compliance with that Plan
- The existing Golf Club House does not provide adequate space for Resident activities
- Because of the poor condition of the Golf Club House and lack of proper facilities, AFRH cannot justify an increase in the user fee rates for the Golf Course. User fees is an important contributor to the Resident Non-Appropriated Funds (RNAF)
- Renovations to the Golf Club House will support Agency goals for architectural accessibility necessary for CARF accreditation
- The new Golf Club House represents an opportunity for AFRH to improve efficiency, reduce operating costs, and improve compliance with EO 13423 and EO 13514

<b>Lead:</b>	<b>AFRH-WASHINGTON</b>	<b>Begins:</b>	<b>FY18</b>
<b>Manager:</b>	<b>OFFICE OF CAMPUS OPERATIONS</b>	<b>Status:</b>	<b>IN DEVELOPMENT</b>
<b>Location:</b>	<b>GOLF CLUB HOUSE (NO. 67), NORTHWEST EDGE OF GOLF COURSE</b>		

# QUARTERS 40 PAVILION



*Sample sheltered setting for smoking area*



AFRH SMOKING SHELTER  
SIDE ELEVATION

Project

## Description:

The AFRH will provide a covered shelter where Residents can smoke outside the Sheridan Building. The open-air shelter will be about 280 square feet in area and will be designed to provide adequate air circulation.

The shelter will be fitted with radiant heat and removable side panels for colder weather. A fire pit will be provided in the north end of the shelter to provide extra heat and a focal point for gathering.

The open space around the new shelter will be improved with a walkway from the Sheridan Building and small plantings. The shelter will be located so as to take advantage of the proximity to the patio east of Quarters 40, which will get a new canopy, outdoor furniture, providing added outdoor gathering space for Residents.

The project will be funded and implemented in two phases: 1) planning and design, and 2) construction of the shelter.

## Necessity:

- This will replace the interim smoking shack located behind the Sheridan Building loading docks
- A pleasant space designated to accommodate smoking will encourage Residents not to smoke in prohibited areas like stairwells or their rooms. This will enhance safety in residential buildings and address ongoing complaints from non-smoking Residents
- The Agency’s CARF accreditation requires AFRH to honor the rights of both smokers and non-smokers; providing a smoking area will help achieve this goal
- The smoking area will be designed to improve the appearance of the area around Quarters 40, which will contribute to a positive campus image

**Lead:** AFRH-WASHINGTON      **Begins:** FY11 (PHASE 1), FY13 (PHASE 2)  
**Manager:** OFFICE OF CAMPUS OPERATIONS      **Status:** IN DEVELOPMENT  
**Location:** EAST OF QUARTERS 40 (NO. 40), EXTERIOR

# GOLF HOLE RELOCATION (GSA-MANAGED)

Project



**Description:**

The AFRH will relocate two existing golf holes (#2 and #3) to accommodate the new development planned for Zone A. The new locations for the two holes were developed as part of the Master Planning process for AFRH-W in 2007, and will be to the northeast of the existing course. The relocation will include minor upgrades and re-grading throughout to accommodate proper drainage and to adjust the tees, fairways, and greens.

The fairways will consist of gentle rolls and swales, and vegetation will be consistent with the new design. Any trees that must be removed for the project will be replaced on a one-to-one basis with in-kind plantings or other native trees that are consistent with the genus of the removed plantings. The chosen replacement species will accommodate the function of the existing trees, namely screening views from the Lakes (west) and from the pasture (south).

**Necessity:**

- Relocation of the golf holes is included in the AFRH-W Master Plan. The existing golf greens are located in the area identified in the Master Plan as Parcels C and D of Zone A. The Master Plan specifies relocation of the golf greens to the AFRH Zone to allow for development of those parcels
- Replanting of removed trees on a one-to-one basis for the relocation of the golf holes is specified as a required mitigation action in the Programmatic Agreement for the AFRH-W Master Plan
- The AFRH-W Golf Course is an important component of public relations for the AFRH, and the relocation of the two greens is necessary to maintain a positive image of the Agency and campus
- Without a full 9-hole course, AFRH cannot justify an increase in the user fee rates for the Golf Course, and user fees is an important contributor to the Resident Non-Appropriated Funds (RNAF); thus, this project will serve the Residents in addition to the Agency

**Lead:** AFRH-WASHINGTON

**Begins:** FY13

**Manager:** GSA

**Status:** PROGRAMMED

**Location:** GOLF COURSE, EXTERIOR

# CAMPUS IRRIGATION



Hydrology map for AFRH-W

Project

### Description:

The AFRH will install a permanent irrigation system throughout the AFRH-W Golf Course that connects to the irrigation system for the entire campus and contributes to a campus-wide stormwater management system. This system will be fed by water from the campus Lakes, and runoff from the irrigation will feed back into the Lakes. Installation will require trenching in both fairways and greens and installation of oscillating sprinklers. The Agency will explore opportunities to improve the energy efficiency of the new irrigation system, such as using a water pump with a variable speed drive or economizer or employing moisture sensors.

### Necessity:

- The AFRH currently uses mobile sprinklers and potable water to irrigate the golf course greens. This process requires continuous labor and incurs high operating costs
- Circulating non-potable water from the Lakes to the golf course for irrigation will greatly reduce the AFRH potable water consumption, which is consistent with the goals of EO 13423 and EO 13514
- The fairways are not currently watered, and the grass dies in the summer, creating an eyesore on the course. However, a new irrigation system could greatly improve the beauty of the golf course
- Because of the poor condition of the golf course fairways, the AFRH cannot justify an increase in the user fee rates. These fees are an important contributor to the Resident Non-Appropriated Funds (RNAF). Improving the condition of the course and enabling the increase of user fees will serve the Residents via the increase of available funds for activities

<b>Lead:</b>	<b>AFRH-WASHINGTON</b>	<b>Begins:</b>	<b>FY14</b>
<b>Manager:</b>	<b>OFFICE OF CAMPUS OPERATIONS</b>	<b>Status:</b>	<b>PROGRAMMED</b>
<b>Location:</b>	<b>LAKES, GOLF COURSE, EXTERIOR</b>		

# PEDESTRIAN PATHS AND SIGNAGE

Project



(1) Sign Guidelines from AFRH-W Master Plan; (2) Example of typical wayfinding station; (3) New pedestrian paths at Scott Statue

### Description:

The AFRH will enhance existing pedestrian paths. New signage will provide wayfinding information, as well as interpretive information related to campus history, military history, and natural resources in Quarters Woods and along the existing WIMSA trail. There will be a continuous route around the perimeter of the AFRH Zone, and new paths will provide a safe pedestrian route from the north end of campus to other, more isolated areas. Where possible, overgrown and buried sections of historic paths will be restored or reestablished, using as much remaining paving material as feasible. The MLP for Washington includes guidelines for furnishings along the path at select locations to provide a place for Residents to rest and gather. Pathways will be used by Residents, their families, staff, and campus visitors.

### Necessity:

- Providing a wayfinding and interpretive signage system will promote the organization’s rich heritage and will contribute to the Agency’s preservation efforts
- Development of an interpretive program is consistent with the Agency’s implementation of a historic preservation program (NHPA, Section 110)
- A walking tour will provide an activity for Residents and their families to do together during visits
- Providing connections between existing pathways will improve safety for pedestrian travel through campus, which is consistent with Agency goals necessary for its CARF accreditation
- Safer, more engaging system of pathways will encourage more outdoor Resident activity
- Accommodating safer, more efficient, and more accessible pedestrian travel will make the entire campus a more valuable asset to Residents, and is consistent with Agency goals necessary for its CARF accreditation
- The pathway and signage system will be an amenity for visitors to the campus, including neighbors from the surrounding community

**Lead:** AFRH-WASHINGTON      **Begins:** FY14  
**Manager:** OFFICE OF CAMPUS OPERATIONS      **Status:** PROGRAMMED  
**Location:** AFRH-W CAMPUS THROUGHOUT, EXTERIOR

# LAKES REHABILITATION

**Description:**

The AFRH will rehabilitate the Lakes and surrounding areas in the southwest area of the campus. Both Lakes will be dredged to allow for greater water depth and capacity. The retaining walls around the Lakes will be repaired, and collapsed sections will be re-constructed. Landscaping will also be rehabilitated, with removal of overgrown plantings, pruning of trees, and other work that will improve area appearance. The fountain in the center of each lake will be repaired to continue to aerate water but with use of re-circulated water rather than potable water. The existing chain link fence and barbed wire around the Lakes may be removed.



*View of upper lake*

Project

**Necessity:**

- The Lakes have not been dredged in recent history, the retaining walls at the perimeter are deteriorated and partially collapsed, and the surrounding landscaping is not well maintained
- Increasing the capacity of the Lakes will improve their ability to be used as part of the storm water management system at the Home and as part of the proposed irrigation system for the Golf Course
- The Lakes are significant historic landscape resources, and their preservation is important to maintaining the character of the AFRH-W Historic District
- The poor condition of the Lakes and surrounding landscape is an eyesore to the campus, and their rehabilitation will restore the visual beauty of this once picturesque area of the Home
- The AFRH would like to make the Lakes a more appealing amenity for Residents to encourage social activity in this area of the campus
- Some Residents enjoy fishing at the Lakes, and dredging them would enhance this activity
- The condition of the stone retaining walls makes the Lakes unsafe for Residents and visitors
- Current use of potable water for the fountains is not consistent with AFRH environmental sustainability objectives, and this project will help the AFRH reach its goals under EO 13423 and EO 13514
- Compliance with CARF accreditation requires appropriate environmental conditions for Residents

**Lead:** AFRH-WASHINGTON

**Begins:** FY14

**Manager:** OFFICE OF CAMPUS OPERATIONS

**Status:** PROGRAMMED

**Location:** THE LAKES, EXTERIOR



# BOWLING CENTER RENOVATIONS



*Completed bowling center renovations*

*Residents enjoying the new bowling facility*

**Description:**

The AFRH renovated the Bowling Center in the basement of the Sheridan Building. The facility received a new interior design consisting of new lighting, flooring, countertops, and chairs. New pins, balls, and score keeping equipment were also provided, and a new restroom was constructed.

**Necessity:**

- The previous aesthetic and equipment of the bowling alley was outdated
- The Bowling Center is an attraction to new visitors, volunteers and community groups and is included on all tours for potential Residents. Maintaining the condition of the facility is important to maintaining the image of the Home and recruiting new Residents
- The Bowling Center is an important campus amenity and is part of the range of activities that is provided to Residents
- Renovations to the Bowling Center were consistent with Agency goals to provide architectural and environmental accessibility to its facilities, which is necessary for its CARF accreditation
- The new bowling center includes updated pin and ball return mechanisms that greatly reduce the amount of necessary maintenance
- Modern equipment, particularly ball feeders, reduce the risk of minor injury to Residents

**Lead:** AFRH-WASHINGTON

**Begins:** FY10

**Manager:** OFFICE OF CAMPUS OPERATIONS

**Status:** COMPLETED

**Location:** SHERIDAN BUILDING (NO. 17), INTERIOR BASEMENT LEVEL

# ROAD AND SIDEWALK REHABILITATION

Project



*Large pothole on Pershing Drive, since repaired*

**Description:**

The AFRH will repair existing roads and sidewalks. Roads with potholes, cracked paving, and other signs of deterioration will be repaired and repaved with asphalt. Cracked and overgrown sidewalks will be repaired with concrete or pavers where appropriate. Curbs between sidewalks and roads will be repaired as necessary, but no new curbs will be installed. As part of the repair work, a heating system will be installed below select sidewalks and roads to avoid maintenance related to snow removal. The heating system will most likely be powered by alternative energy, such as solar, to remain energy efficient and cost effective for the Agency. Roads and sidewalks will be striped as appropriate.

**Necessity:**

- Cracked sidewalks create tripping hazards for pedestrians, and deteriorated roads make it difficult for Residents and personnel in cars, golf carts, and PMVs to travel through campus
- Pot holes, cracked asphalt and cracked sidewalks detract from the visual beauty of campus
- Snow and ice on sidewalks or roads is a safety hazard for Residents, staff, and visitors
- The AFRH must keep major pedestrian and vehicular routes clear during snowstorms for access by ambulances and other emergency personnel. Snow removal is a major cost and maintenance issue for the Agency, and heated sidewalks and roads would make campus operations more efficient
- CARF accreditation requires the AFRH to maintain a safe environment that minimizes risk of harm to Residents, personnel, and other stakeholders. Also, reduction of operating expenses due to heated sidewalks and roads is consistent with CARF goals for sound financial planning and management

<b>Lead:</b>	<b>AFRH-WASHINGTON</b>	<b>Begins:</b>	<b>FY14</b>
<b>Manager:</b>	<b>OFFICE OF CAMPUS OPERATIONS</b>	<b>Status:</b>	<b>PROGRAMMED</b>
<b>Location:</b>	<b>AFRH-W CAMPUS THROUGHOUT, EXTERIOR</b>		

## PMV AND BIKE LANE STRIPING



### **Description:**

The AFRH will re-stripe roads to delineate lanes for Personal Mobility Vehicles (PMVs) and for bikes. Pedestrian, PMV, and bike icons will be used help Residents navigate the new lanes.

### **Necessity:**

- Many Residents use PMVs to travel around campus, and there is currently no designated lane for PMVs on roads. This condition creates a safety hazard for both Residents and drivers
- There are no existing bike lanes painted on the roads
- Providing a designated lane for PMVs will allow for more Resident travel around the campus. This will encourage outdoor activity and allow Residents to take advantage of the historic grounds
- Delineating separate lanes for Residents to safely travel around campus on PMVs addresses architectural and accessibility goals for CARF accreditation. It also supports the Agency's CARF accreditation by providing special accommodations to ensure safety of Residents with limited abilities

**Lead:** AFRH-WASHINGTON

**Begins:** FY13

**Manager:** OFFICE OF CAMPUS OPERATIONS

**Status:** PROGRAMMED

**Location:** ROADS BETWEEN THE NORTH BOUNDARY AND THE GOLF COURSE; POSSIBLE EXTENTION TO THE LAKES



# CAPITAL IMPROVEMENT PLANNING OBJECTIVES

**SAFETY AND SECURITY:** The project addresses a security / safety concern or deficiency at AFRH-W

**COMPLIANCE:** The project addresses the need to comply with regulations, standards, and guidelines that are relevant to operation as a Federal Agency and a CARF-accredited CCRC

**RESIDENT PRIORITY:** The project addresses specific concerns/wants/needs voiced by AFRH-W Residents

**FINANCIAL IMPACT:** The project results in a short- or long-term cost avoidance or may bring in additional income for the Agency

**AGENCY / CAMPUS IMAGE:** The project affects how AFRH-W is perceived by potential Residents, the surrounding community, the Department of Defense, and Congress

Projects identified as having both Safety and Security and Compliance objectives were given priority in scheduling when not already identified with a dependency group (see next Section of this Volume).

On the following charts, an asterisk (\*) indicates Priority was not used to schedule project, as it is complete.

## Priority Considerations: The Scott Project

PROJECT	SAFETY AND SECURITY	COMPLIANCE	RESIDENT PRIORITY	FINANCIAL IMPACT	AGENCY/ CAMPUS IMAGE
SCOTT BUILDING REPLACEMENT	✓	✓	✓	✓	✓
IT HUB RELOCATION*		✓	✓	✓	
NEW CHILLER*		✓		✓	
SHERMAN-SCOTT SIDEWALK REALIGNMENT		✓			✓
EXTERIOR RENOVATIONS FOR ASSISTED LIVING		✓			✓
NEW SHERIDAN BUILDING ELEVATORS	✓	✓	✓	✓	✓
SHERMAN BUILDING TRANSITION*	✓	✓	✓	✓	✓
SHERIDAN RESIDENCE TRANSITION*	✓	✓	✓	✓	✓

## Priority Considerations: Environmental and Systems

PROJECT	SAFETY AND SECURITY	COMPLIANCE	RESIDENT PRIORITY	FINANCIAL IMPACT	AGENCY/ CAMPUS IMAGE
HEATING SYSTEM REPLACEMENT	✓	✓		✓	
SHERIDAN BUILDING ENVELOPE IMPROVEMENTS		✓	✓	✓	
WATER, GAS, AND ELECTRIC METER SYSTEMS		✓		✓	
WATER INFRASTRUCTURE REPAIR	✓	✓	✓	✓	
QUARTERS INTERIOR RENOVATIONS AND REMODELING		✓		✓	

Planning Objectives



## Priority Considerations: Historic Preservation and Stabilization

PROJECT	SAFETY AND SECURITY	COMPLIANCE	RESIDENT PRIORITY	FINANCIAL IMPACT	AGENCY/ CAMPUS IMAGE
SHERMAN BUILDING EARTHQUAKE RECOVERY	✓	✓	✓	✓	✓
SHERMAN EXTERIOR REHABILITATION	✓	✓	✓		✓
GRANT BUILDING PARAPET REPAIR	✓	✓	✓		✓
FORWOOD CLOCK TOWER REPAIR*	✓	✓			✓
BARNES AND FORWOOD EXTERIOR PAINTING		✓		✓	✓
QUARTERS EXTERIOR WOOD AND PORCH REPAIRS	✓	✓			✓
HISTORIC PERIMETER FENCE AND WALL REHABILITATION	✓	✓	✓	✓	✓
SHERMAN CLOCK TOWER RENOVATION*			✓		✓

## Priority Considerations: Safety and Security

PROJECT	SAFETY AND SECURITY	COMPLIANCE	RESIDENT PRIORITY	FINANCIAL IMPACT	AGENCY/ CAMPUS IMAGE
EAGLE GATE RENOVATION	✓	✓		✓	✓
SHERIDAN BUILDING MODIFICATIONS FOR ADA COMPLIANCE	✓	✓	✓		✓
SHERIDAN ELEVATOR REPLACEMENT	✓	✓	✓	✓	
INTERIOR RENOVATIONS FOR ASSISTED LIVING	✓	✓	✓		
KEYLESS ENTRY	✓	✓	✓	✓	
SAFE DEPOSIT BOXES	✓	✓	✓	✓	
SECURITY CAMERAS/ WANDERING ALARM UPDATES	✓	✓		✓	
FIRE ALARM SYSTEM UPDATES	✓	✓	✓	✓	
FENCE CONSTRUCTION (BETWEEN AFRH ZONE AND ZONE A)	✓	✓	✓		

Planning Objectives

## Priority Considerations: Outdoor and Activity Programming

PROJECT	SAFETY AND SECURITY	COMPLIANCE	RESIDENT PRIORITY	FINANCIAL IMPACT	AGENCY/ CAMPUS IMAGE
MASTER LANDSCAPE PLAN	✓	✓	✓		✓
SENIOR TV		✓	✓		
GOLF CLUB HOUSE REPLACEMENT		✓	✓	✓	✓
QUARTERS 40 PAVILION	✓	✓	✓		✓
RELOCATION OF GOLF GREENS		✓		✓	✓
CAMPUS IRRIGATION		✓		✓	✓
PEDESTRIAN PATHS AND SIGNAGE		✓			✓
LAKES REHABILITATION	✓	✓		✓	✓
RELOCATION OF COMMUNITY GARDENS	✓	✓	✓	✓	✓
BOWLING CENTER RENOVATIONS*	✓		✓		✓
REPAIR OF ROADS AND SIDEWALKS	✓	✓	✓	✓	✓
PMV AND BIKE LANE STRIPING	✓	✓	✓		✓
GOLF CART/PMV PARKING AND CHARGING	✓		✓		✓

# AFRH-W CIP DEPENDENCIES

The AFRH identified project dependency groups to inform the planning process for the capital improvement projects. Two types of dependency groups are relevant to AFRH-W:

- 1. Functional Dependencies:** Groups of projects that should be done in a specified sequence or simultaneously to optimize operations at AFRH-W or to minimize interruptions to operations during project completion. NOTE: some functional dependencies also result in cost savings, but the functional dependency takes precedent over any potential cost dependency.
- 2. Cost Dependencies:** Groups of projects that, if done together, could result in cost savings for the Agency (based on similar scopes of work and the ability to consolidate contractor agreements and efforts).

Six different dependency groups were identified in the list of the AFRH-W capital improvement projects. (Several capital improvement projects included in this Plan do not fit into a dependency group and are classified as Group 7: Independent Projects.)

The primary Five Dependency Groups include:

- Group 1: Scott Project
- Group 2: Infrastructure
- Group 3: Outdoor Programming
- Group 4: Stormwater Management
- Group 5: Sherman Building



## DEPENDENCY GROUPS: SNAPSHOT

DEPENDENCY GROUP	DRIVING PROJECT	FUNCTIONAL DEPENDENCIES	COST-SAVING DEPENDENCIES
<b>GROUP 1 Scott Project</b>	<b>Scott Building Replacement and Modernization</b>	<ul style="list-style-type: none"> <li>• New Elevators in Sheridan Building</li> <li>• Update Fire Alarm System</li> <li>• Security Cameras and Home-Free System</li> <li>• New Chiller</li> <li>• IT Hub Relocation</li> <li>• Interior Renovations for Assisted Living in Sheridan Building</li> <li>• Exterior Building Renovations for Assisted Living</li> <li>• Sheridan Building Transition</li> <li>• Sherman Building Transition</li> </ul>	<ul style="list-style-type: none"> <li>• Relocating Community Gardens</li> </ul>
<b>GROUP 2 Infrastructure</b>	<b>New Water Infrastructure</b>		<ul style="list-style-type: none"> <li>• Repair and Heating of Roads and Sidewalks</li> </ul>
<b>GROUP 3 Outdoor Programming</b>	<b>Master Landscape Plan (MLP)</b>		<ul style="list-style-type: none"> <li>• Outdoor Gathering Areas</li> <li>• Pedestrian Paths and Signage</li> <li>• Golf Cart Parking and Charging</li> <li>• Smoking Area</li> </ul>
<b>GROUP 4 Stormwater Management</b>	<b>Campus Irrigation</b>	<ul style="list-style-type: none"> <li>• Lakes Rehabilitation</li> </ul>	<ul style="list-style-type: none"> <li>• Golf Greens Relocation</li> </ul>
<b>GROUP 5 Sherman Building</b>	<b>Sherman Building Earthquake Recovery</b>	<ul style="list-style-type: none"> <li>• Sherman Exterior Restoration</li> </ul>	

## DEPENDENCY GROUPS: A LOOK AT PLANNING CONSIDERATIONS

### Group 1: The Scott Project

Dependency Group 1 was driven by the need to demolish the old Scott Building and to construct the new Scott Building. This group includes both functional and cost dependencies.

GROUP 1 FUNCTIONAL DEPENDENCIES	
PROJECT	DESCRIPTION OF DEPENDENCY
Scott Building Replacement and Modernization	The Scott Building Replacement project is the driver of this dependency group.
New Sheridan Building Elevators	New elevators must be constructed in the Sheridan Building to accommodate the new service paths from the new Scott Building to the new Assisted Living spaces on the second and third floors of Sheridan.
Fire Alarm System Updates	The scope of the new Scott Building includes installation of a new control panel for the fire alarm system. Updating the fire alarm system throughout the campus should be done in coordination with the construction of the new building to ensure consistency in systems and operations.
Security Cameras and Wandering Alarm System	The scope of the new Scott Building includes new facilities for the AFRH-W Security Division. Updates to security cameras and the wandering alarm system throughout the campus should be done in coordination with the construction of the new building to ensure consistency in systems and operations.
New Chiller	The previous chiller plant was located in the basement of the old Scott Building, and the previous cooling tower was located on the roof of the old Scott Building. The demolition of the Scott Building necessitated the relocation of the plant and tower.
IT Hub Relocation	The previous IT Hub was located in the Scott Building, and demolition of the Scott Building required immediate relocation of the IT Hub to the Sherman Building to avoid interruptions to these operations.
Interior Renovations for Assisted Living	The interior renovations for Assisted Living in the Sheridan Building are required before Residents can be moved from the LaGarde Building. These renovations should be completed prior to the completion of construction of the new Scott Building to avoid operational redundancies once the new building opens.
Sheridan Building Transition	Resident and wellness services are currently located in the Scott Building. Demolition of the Scott Building required immediate accommodation of temporary spaces for those services until the new building opens.
Sherman Building Transition	Dining and activity spaces were located in the old Scott Building. Demolition of the Scott Building required immediate accommodation of temporary spaces in the Sherman Building until the new building opens.
Exterior Building Renovations for Assisted Living	The exterior renovations for Assisted Living in the Sheridan Building are required before Residents can be moved from the LaGarde Building. These renovations should be completed prior to the completion of construction of the new Scott Building to avoid operational redundancies once the new building opens.

GROUP 1 COST DEPENDENCIES	
PROJECT	DESCRIPTION OF DEPENDENCY
Scott Building Replacement and Modernization	The Scott Building Replacement project is the driver of this dependency group.

**GROUP 1 COST DEPENDENCIES**

<b>PROJECT</b>	<b>DESCRIPTION OF DEPENDENCY</b>
Community Gardens Relocation	Currently, Residents are transported to the community gardens in the same shuttle that is used for the LaGarde Building. Once the LaGarde Building is decommissioned and Residents are moved to the new Scott Building, the AFRH will need to continue to pay for shuttle service to maintain the use of the community gardens. Relocating the community gardens before the completion of the new Scott Building will allow cost savings through immediate termination of shuttle service.

**Group 2: Infrastructure**

Dependency Group 2 consists of cost dependencies only.

**GROUP 2 COST DEPENDENCIES**

<b>PROJECT</b>	<b>DESCRIPTION OF DEPENDENCY</b>
Water Infrastructure Repair	The Water Infrastructure Repair project is the driver of this dependency group.
Road and Sidewalk Repair	The repair of the water infrastructure throughout the campus will result in the disturbance of much of the road and sidewalk system. Repair of deteriorated roads and sidewalks should take place after sections of the water system have been repaired to avoid the cost of repeating work.

**Group 3: Outdoor Programming**

Dependency Group 3 consists of cost dependencies only.

**GROUP 3 COST DEPENDENCIES**

<b>PROJECT</b>	<b>DESCRIPTION OF DEPENDENCY</b>
Master Landscape Plan	The Master Landscape Plan is the driver of this dependency group.
Quarters 40 Pavilion MLP Projects: Pedestrian Paths and Signage; Golf Cart Parking and charging; Outdoor Gathering Areas	All projects in this dependency group require similar contractors and materials that are associated with the improvement of outdoor spaces. Completion of these projects simultaneously or in succession will allow consolidation of contractor agreements and bulk purchasing of select materials.

**Group 4: Stormwater Management**

Dependency Group 4 consists of functional and cost dependencies.

**GROUP 4 FUNCTIONAL DEPENDENCIES**

<b>PROJECT</b>	<b>DESCRIPTION OF DEPENDENCY</b>
Campus Irrigation	The Campus Irrigation project is the driver of this dependency group.
Lakes Rehabilitation	The current condition of the Lakes prohibits the Lakes from being used to catch the increased runoff that will occur from the Golf Course and Campus Irrigation. The rehabilitation of the Lakes must occur before commencement of irrigation of the Golf Course.

GROUP 4 COST DEPENDENCIES	
PROJECT	DESCRIPTION OF DEPENDENCY
Campus Irrigation	The Campus Irrigation project is the driver of this dependency group.
Golf Hole Relocation	The Campus Irrigation project will result in ground disturbance throughout the golf course. The Golf Hole Relocation must be coordinated with the irrigation effort to avoid costs associated with repeating landscaping work for relocated greens.

**Group 5: Sherman Building**

Dependency Group 5 consists of Functional dependencies.

GROUP 5 FUNCTIONAL DEPENDENCIES	
PROJECT	DESCRIPTION OF DEPENDENCY
Sherman Building Earthquake Recovery	The Sherman Building Earthquake Recovery effort is the driver of this functional dependency group.
Sherman Exterior Rehabilitation	Repair of all windows is part of the scope of the Sherman Exterior Rehabilitation, and coordination of these efforts may result in cost savings associated with consolidation of contracts.

**Group 6: Independent Projects**

Not all projects are captured in the dependency groups outlined above. With no functional or cost-effective linkages to the dependency groups, the priorities of each independent project (including all projects at AFRH-G) were evaluated based on the project objectives, as outlined in the preceding section.

- Sheridan Elevator Replacement
- Bowling Center Renovations
- Quarters Exterior Wood and Porch Repairs
- Sheridan Building Envelope Improvements
- Sherman Clock Tower Renovation
- Forwood Clock Tower Stabilization
- Grant Building Parapet Repair
- Water, Gas, and Electric Meters
- New Fence (between the AFRH Zone and Zone A)
- Sherman-Scott Sidewalk Realignment
- Eagle Gate Renovation
- Golf Club House Replacement
- Heating System Update
- Keyless Entry
- Safe Deposit Boxes
- Sheridan Modifications for ADA Compliance
- Senior TV

With no functional or cost-effective linkages to the five dependency groups, the priority of the projects above was evaluated based on the Objectives described in the previous section of this Volume. Projects identified as having Safety and Security objectives and Compliance objectives received first priority in scheduling. These projects receive top priority, as they include both Safety and Security and Compliance objectives:

PROJECT	SAFETY AND SECURITY	COMPLIANCE	RESIDENT PRIORITY	FINANCIAL IMPACT	AGENCY/ CAMPUS IMAGE
Sheridan Elevator Replacement	✓	✓	✓	✓	
Heating System Replacement	✓	✓		✓	
Eagle Gate Renovation	✓	✓		✓	✓
Keyless Entry and Safe Deposit Boxes	✓	✓	✓	✓	
Sheridan Building Modifications for ADA Compliance	✓	✓	✓		✓
Quarters Exterior Wood & Porch Repairs	✓	✓			✓
Forwood Clock Tower Stabilization	✓	✓			✓
Grant Building Parapet Repair	✓	✓	✓		✓
New Fence between AFRH Zone & Zone A	✓	✓		✓	✓

These projects are moderate priority, as they include either Safety and Security or Compliance objectives:

PROJECT	SAFETY AND SECURITY	COMPLIANCE	RESIDENT PRIORITY	FINANCIAL IMPACT	AGENCY/ CAMPUS IMAGE
Senior TV		✓	✓		
Sherman-Scott Sidewalk Realignment		✓			✓
Sheridan Building Envelope Improvements		✓	✓	✓	
Water, Gas, and Electric Meter Systems		✓		✓	

These projects include neither Safety and Security nor Compliance objectives:

PROJECT	SAFETY AND SECURITY	COMPLIANCE	RESIDENT PRIORITY	FINANCIAL IMPACT	AGENCY/ CAMPUS IMAGE
Golf Club House Replacement			✓	✓	✓



Project Dependencies

## **CAPITAL IMPROVEMENT TIMELINES**

Congress authorizes the allocation of capital funds from the AFRH Trust Fund annually. Since FY08, the AFRH has received \$2 million per year for Agency-wide capital improvement spending. This amount will remain at \$2 million per year through FY13, and includes the contingency money set aside for emergency spending in campus operations. For planning purposes, the annual allocation for FY18-27 is projected to be \$2 million. The only year in the plan that operates on a larger budget is FY11, which was allocated an additional \$1 million for improvements associated with the Scott Project in Washington.

The total budget assumed for the AFRH Capital Improvement Plan for FY10-FY21, about \$21 million, was distributed between the Washington and Gulfport campuses based on relative need. Given the recent completion of the AFRH-G facility and the size and condition of the Washington campus, the majority of funds are allocated to AFRH-W. The age and historic significance of the AFRH-W campus puts greater demand on the capital improvement budget to address issues such as modernization of infrastructure and systems, plus sensitive repairs and alterations to historic resources. The earthquake that struck AFRH-W in August 2011 created an exceptional need; in response, Congress appropriated an additional \$14.6 million in capital funding to be used to repair property damage and to restore Agency operations that were disrupted and displaced by the natural disaster. All funds designated for earthquake relief at AFRH-W are kept separate from the annual \$2 million appropriation, and will not be incorporated into the capital budget to meet Agency needs unrelated to the effects of the earthquake.

The project identification process described in section 3.1 of this Volume took place in facilitated sessions at the AFRH-W campus that involved Residents, personnel, and administrative officers of AFRH. The resulting list of capital improvement projects was then reviewed and refined to ensure alignment with campus and Agency objectives. Organization of projects within the Agency's capital improvement budget was systematic to ensure that the Person-centered Care and administrative operations at AFRH-W would continue, uninterrupted, throughout the timeline of the Plan.

For planning purposes, the AFRH Chief of Campus Operations provided estimated costs for each project. These costs were in current dollars as of FY11 and based on dollar amounts from existing and comparable AFRH project contracts. The AFRH has yet to fully develop the scopes for several projects included in this Plan; and for those projects with limited information available, the costs were estimated based on existing information and increased by 20% to accommodate future development of project scopes. The annual capital improvement budget and estimated project costs were used in combination with project dependencies and objectives to determine an overall project sequencing by fiscal year. Although used in the planning process, cost information is not specified in the campus-specific volumes of the CIP because the costs may change as markets and project scopes evolve. Cost information has instead been included in Volume IV of the Capital Improvement Plan to enable the Agency to continue project planning through 2021.

To determine project chronology by fiscal year and guide Agency spending, projects were evaluated based on their inter-dependencies (six dependency groups are listed and explained in section 5 of this Volume). Efforts to keep dependency groups intact dictated much of the project timeline for this Plan, meaning that the AFRH will implement dependency groups in conjunction or in succession with one another. Leveraging the logistical and cost-saving relationships between projects in these dependency groups will be in the best interest of the AFRH, maximizing potential benefits to the Residents, the employees, and the environment.

Not all projects were incorporated into a dependency group. Those projects that did not have functional or cost-effective linkages to other projects were treated in the planning process as independent efforts. Planning for these projects was instead based on each project's purpose and need. As summarized in section 5 of this Volume, the objectives for each project were broken down into five categories: Safety and Security; Resident Priority; Agency/Campus Image; Compliance; and Financial Impact. While all five categories of project objectives were considered in evaluating independent project importance, the objectives related to Safety, Security, and Compliance took precedence over other growth and goal-oriented objectives. Once dependency groups were spaced throughout the Plan's timeline, independent projects were inserted into the timeline as appropriate based on available funds and the priority determined for each.

**FY2011 – AFRH-W Capital Improvement Projects**

Scott Building Replacement (GSA-Managed)
Sherman Building Transition
Sheridan Building Transition
Eagle Gate Renovation
Forwood Clock Tower Stabilization
Quarters 40 Pavilion (Phase 1)
Quarters Interior Remodel (for Quarters 45)
Quarters Wood and Porch Repairs

**FY2012 – AFRH-W Capital Improvement Projects**

Sherman Building Earthquake Recovery
Sherman-Scott Sidewalk Realignment (GSA-Managed)
Master Landscape Plan
Interior Renovations for Assisted Living
Exterior Renovations for Assisted Living (GSA-Managed)
Fire Alarm System Updates
New Sheridan Bldg Elevators (GSA-Managed)
Keyless Entry
Quarters Interior Renovations (Cont'd)
Quarters Exterior Wood and Porch Repairs
Senior TV

**FY2013 – AFRH-W Capital Improvement Projects**

Community Gardens Relocation (Raised Beds)
Golf Cart Parking and Charging
Heating System Replacement
Outdoor Gathering Areas
BPV and Bike Lane Striping
Quarters 40 Pavilion (Phase 2)
Quarters Interior Renovations (Cont'd)
Security Cameras and Wandering Alarm
Sheridan Building Modifications for ADA Compliance
Water, Gas, and Electric Meter Systems

**FY2014 – AFRH-W Capital Improvement Projects**

Sheridan Building Envelope Improvements
Water Infrastructure Repairs (Phase 1)
Roads and Sidewalk Repair (Phase 1)
Campus Irrigation
Lakes Rehabilitation
Pedestrian Paths and Signage
Safe Deposit Boxes

**FY2015 – AFRH-W Capital Improvement Projects**

Water Infrastructure Repairs (Phase 2)
Roads and Sidewalk Repair (Phase 2)
Historic Perimeter Fence and Wall Rehabilitation (Phase 1)

**FY2016 – AFRH-W Capital Improvement Projects**

Water Infrastructure Repairs (Phase 3)
Roads and Sidewalk Repair (Phase 3)
Historic Perimeter Fence and Wall Rehabilitation (Phase 2)

**FY2017 – AFRH-W Capital Improvement Projects**

Water Infrastructure Repairs (Phase 4)
Roads and Sidewalk Repair (Phase 4)
Historic Perimeter Fence and Wall Rehabilitation (Phase 3)

## **FY2018 – AFRH-W Capital Improvement Projects**

Water Infrastructure Repairs (Phase 5)

Roads and Sidewalk Repair (Phase 5)

Historic Perimeter Fence and Wall Rehabilitation (Phase 4)

Golf Club House Replacement

## **FY2019 – AFRH-W Capital Improvement Projects**

Historic Perimeter Fence and Wall Rehabilitation (Phase 5)

Sheridan Elevator Replacement

Grant Building Parapet Repair

Barnes and Forwood Exterior Paint

Fence Between AFRH Zone and Zone A (Phase 1)

## **FY2020 – AFRH-W Capital Improvement Projects**

Fence Between AFRH Zone and Zone A (Phase 2)



**AFRH-W Capital Improvement Timeline  
By Project Set**

Project Set	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
<b>The Scott Project</b>	Sherman Bldg Transition; Sheridan Residence Transition	Sherman-Scott Sidewalk Realignment; Exterior Renovations for Assisted Living; New Sheridan Elevators	Scott Building Replacement								
<b>Environmental and Systems</b>			Heating System Replacement; Water, Gas, and Electric Meters	Sheridan Bldg Envelope Improvements							
<b>Preservation and Stabilization</b>	Forwood Clock Tower Stabilization	Sherman Bldg Earthquake Recovery	Quarters Interior Renovations and Remodeling								
<b>Safety and Security</b>	Eagle Gate Renovation	Keyless Entry; Interior Renovations for Assisted Living; Fire Alarm System Updates	Security Camera and Wandering Alarm Update; Sheridan Modifications for ADA	Safe Deposit Boxes							
<b>Outdoor and Activity Programming</b>	Quarters 40 Pavilion (Phase 1)	Master Landscape Plan; Senior TV	Quarters 40 Pavilion (Phase 2); Community Gardens Relocation; Golf Cart/PMV Parking and Charging; Outdoor Gathering Areas; PMV and Bike Lane Striping	Campus Irrigation; Lakes Rehabilitation; Pedestrian Paths and Signage							

Fiscal Year

Timelines

# APPENDICES

- A.1: AFRH MISSION, VISION, AND GUIDING PRINCIPLES
- A.2: CARF ACCREDITATION (VALID 2008-2013)
- A.3: AMERICANS WITH DISABILITIES ACT
- A.4: THE HEALTH INSURANCE PORTABILITY AND ACCOUNTABILITY ACT
- A.5: NATIONAL ENVIRONMENTAL POLICY ACT
- A.6: AFRH-W MASTER PLAN
- A.7: NATIONAL HISTORIC PRESERVATION ACT
- A.8: EXECUTIVE ORDER 13423
- A.9: EXECUTIVE ORDER 13514

## AFRH Mission, Vision, and Guiding Principles

All capital improvement projects at AFRH-W must be consistent with and in furtherance of the Agency's Mission, Vision, and Guiding Principles, which are defined as follows:

**AFRH Mission:** To fulfill our nation's commitment to its veterans by providing a premier retirement community with exceptional residential care and extensive support services.

**AFRH Vision:** A retirement community committed to excellence, fostering independence, vitality, and wellness for veterans, making it a vibrant place in which to live, work, and thrive.

AFRH Guiding Principles:

- Person-centered
- Accountability
- Integrity
- One vision/one mission/one organization
- Workforce growth
- Honor heritage
- Inspire excellence

## Commission on Accreditation of Rehabilitation Facilities

The AFRH received a five-year accreditation from the Commission on Accreditation of Rehabilitation Facilities-Continuing Care Accreditation Commission (CARF-CCAC) in 2008 and must ensure any capital improvement projects are consistent with the Quality Standards set by CARF-CCAC to maintain its accreditation.

CARF is an independent, non-profit accrediting body whose mission is "to promote the quality, value, and optimal outcomes of services through a consultative accreditation process." AFRH applied for and received a five-year accreditation from CARF-CCAC in 2008. As part of maintaining the accreditation, AFRH is subject to periodic inspections through CARF-CCAC, during which the Agency and its facilities will be evaluated using the following Quality Standards as outlined by CARF. The CARF-CCAC Program includes:

**Mission:** The mission of CARF is to promote the quality, value, and optimal outcomes of services through a consultative accreditation process that centers on enhancing the lives of the persons served.

**Vision:** Through responsiveness to a dynamic and diverse environment, CARF serves as a catalyst for improving the quality of life of the persons served by CARF-accredited organizations and the programs and services they provide.

## Core values

- All people have the right to be treated with dignity and respect
- All people should have access to needed services that achieve optimum outcomes
- All people should be empowered to exercise informed choice

## Purposes

- To develop and maintain current, field-driven standards that improve the value and responsiveness of the programs and services delivered to people in need of rehabilitation and other life enhancement services
- To recognize organizations that achieve accreditation through a consultative peer-review process and demonstrate their commitment to the continuous improvement of their programs and services with a focus on the needs and outcomes of the persons served
- To conduct accreditation research emphasizing outcomes measurement and management, and to provide information on common program strengths as well as areas needing improvement
- To provide consultation, education, training, and publications that support organizations in achieving and maintaining accreditation of their programs and services
- To provide information and education to persons served and other stakeholders on the value of accreditation
- To seek input and to be responsive to persons served and other stakeholders

In addition, CARF is committed to:

- The continuous improvement of both organizational management and service delivery
- Diversity and cultural competence in all CARF activities and associations
- Enhancing the involvement of persons served in all of CARF's activities
- Persons served being active participants in the development and application of standards of accreditation
- Enhancing the meaning, value, and relevance of accreditation to persons served

CARF-CCAC compliance must be taken into consideration in the AFRH Master Capital Improvement Plan in two ways: first, AFRH must ensure that capital improvement projects are executed in a way that does not conflict with the CARF-CCAC quality standards; second, AFRH should plan for capital improvement projects that further illustrate the Agency's commitment to these standards.

## Americans with Disabilities Act

The AFRH must comply with the Americans with Disabilities Act (ADA) ensure that all facilities at AFRH-W are safe and accessible for Residents of all abilities.

President George H. W. Bush signed the ADA into law in 1990, and ADA Standards for Accessible Design have since been developed and enforced by the Department of Justice. The Standards, parts of Titles II and III Regulations (28 CFR Part 35 and 36), were published in 1991 and revised in 1994. New regulations were published in 2010; compliance with the new regulations is permitted as of September 15, 2010, but not required until March 15, 2012. When considering ADA Design Standards for AFRH capital improvement projects, it will be prudent to apply the 2010 Standards.

Title II regulations are applicable to State and Local Government Facilities, and Title III standards apply to Public Accommodations and Commercial Facilities. 2004 ADAAG at 36 CFR part 1191, appendices B and D, apply to both Title II and Title III facilities.

The purpose of the ADA Standards for Accessible Design is to allow individuals with disabilities to access places of Local and State Government as well as public accommodations and commercial facilities. The guidelines are to be applied during the design, construction, and alteration of buildings that are subject to compliance to these regulations under the ADA of 1990. In new construction and alteration projects, standards take into consideration building access, path of travel, and accessible features (telephones, drinking fountains, restrooms, parking, etc.).

## **The Health Insurance Portability and Accountability Act**

Because AFRH provides healthcare services to Residents, the Agency must comply with the Health Insurance Portability and Accountability Act of 1996 (HIPAA). Capital improvement projects will be subject to compliance with both the Privacy and Security Rules under HIPAA.

HIPAA (PL 104-191) became law in 1996 and stipulates the U.S. Department of Health and Human Services (HHS) develop national standards for electronic healthcare transaction security and Federal privacy protections for individually identifiable health information. In response, HHS published the Privacy Rule and the Security Rule in 2000 and 2002, respectively. Sections of these rules include regulations for real and personal property associated with medical services and health information relevant to AFRH-W capital improvement projects.

## **National Environmental Policy Act**

To comply with NEPA, every AFRH-W capital improvement project must include consideration and analysis of its impacts on the environment, as well as on the relationship of people with the environment. Specifically, each must comply with the AFRH NEPA compliance policies established in 38 CFR Part 200 in November 2009.

President Richard Nixon signed the National Environmental Protection Act (NEPA, PL 91-190, as amended) into law on January 1, 1970, requiring every Federal Agency to consider the impact of its actions on the human environment. NEPA also requires each Agency to establish Agency-specific procedures for NEPA compliance. AFRH established its Agency-specific NEPA procedures in 2009 to ensure implementation of NEPA and cooperation with related agencies, including the National Capital Planning Commission (NCPC). These procedures include guidelines for the Classification of AFRH Actions, which directs AFRH to place proposed actions into one of three classes of documentation: A Categorical Exclusion (CATEX), Environmental Assessment (EA) or Environmental Impact Statement (EIS): Some capital improvement projects may also include public involvement in the planning stages, depending on the degree of projected impacts.

## **AFRH-W Master Plan**

All proposed capital improvement projects at AFRH-W should be consistent with the NCPC-approved AFRH-W Master Plan (2008). Any material deviation from the Master Plan will require a Master Plan Amendment, which triggers other regulatory compliance related to historic preservation and environmental impacts.

The AFRH-W Master Plan is the basis for facilitating and directing future development by the private sector and Agency on the 272-acre AFRH-W campus. The AFRH-W Master Plan was approved by the National Capital Planning Commission (NCPC) in 2008 for its consistency with the Comprehensive Plan for the National Capital (Federal and District elements). The AFRH-W Master Plan divides AFRH-W into two primary zones:

- AFRH Zone: The area (195 acres) that will continue to be owned and managed by the Agency primarily for the operation of AFRH-W
- Zone A: The area (77 acres) that will be leased or sold to a private developer for the purpose of leveraging the Agency's real estate to increase revenue for the AFRH Trust Fund

For each Zone, the Master Plan specifies appropriate development footprints, as well as guidelines for land use, new construction, access and security, streets and streetscapes, parking, views and topography, open space, site perimeter, treescapes, foundation plantings, commemorative objects and sculpture, site furnishings, site materials, lighting, and

signage. Capital improvement projects proposed for AFRH-W must be consistent with development footprints and design guidelines set forth in the AFRH-W Master Plan. Any proposed work or development that is materially inconsistent with the Master Plan will require a Master Plan Amendment, which is subject to compliance procedures related to the National Environmental Protection Act (NEPA) and the National Historic Preservation Act (NHPA). The Master Plan is accompanied by a Programmatic Agreement that addresses historic preservation compliance related to the Master Plan, as well as the procedures for amending the Master Plan.

## National Historic Preservation Act

Because AFRH is a Federal Agency, it must comply with the National Historic Preservation Act of 1966, as amended (NHPA) and its associated regulations and guidelines. AFRH complies with the NHPA through implementation of the AFRH-W Historic Preservation Plan and the stipulations of the AFRH-W Programmatic Agreement. Most NHPA compliance for a Federal Agency is related to Section 106, Section 110, and Section 111 of the Act.

## AFRH-W HISTORIC PRESERVATION PLAN AND PROGRAMMATIC AGREEMENT

In 2007, AFRH adopted the AFRH-W Historic Preservation Plan (HPP) as its guiding document for compliance with Section 106, Section 110, and Section 111 of the NHPA. The HPP was prepared in accordance with the NHPA and its associated regulations and guidelines, notably the “Guidelines for Federal Agency Responsibilities under Section 110 of the National Historic Preservation Act” (53 FR 4827) and “Protection of Historic Properties” (as amended August 5, 2004; 36 CFR Part 800). The AFRH-W HPP is enforced under the AFRH-W Programmatic Agreement (PA) between the District of Columbia State Historic Preservation Office (DCSHPO), the Advisory Council on Historic Preservation (ACHP), the National Park Service (NPS), and AFRH. The PA was executed for the implementation of the approved AFRH-W Master Plan (2008). The AFRH-W HPP establishes internal policies for managing the AFRH-W campus in a manner that maintains the historic integrity of the AFRH-W Historic District and its resources while obtaining the most efficient and productive use of the Agency’s property.

## NHPA SECTION 106

All capital improvement projects at AFRH-W must be assessed for potential adverse effects on historic resources. At AFRH-W, such projects must follow the procedures set forth in HP SOP # 1 (Section 106 Review of All Undertakings).

Section 106 of the NHPA (36 CFR Part 800) requires Federal agencies to take into account the effects of their undertakings on historic properties and afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment. Once a Federal Agency has proposed an undertaking, it must identify a potential area of effect, identify historic properties within that area of effect, identify potential adverse effects to those properties, and resolve those properties through avoidance, minimization or mitigation. This process is completed in coordination with the State Historic Preservation Officer (SHPO) and could include consultation with other relevant public and private stakeholders. Because the entire 272 acres of AFRH-W have been designated a Historic District, all undertakings at AFRH-W must be assessed for potential adverse to the AFRH-W Historic District and its resources. Through the HPP and PA, AFRH-W follows a customized Section 106 process that requires documentation and review that is managed by the AFRH CR Manager. This process typically involves review by the District of Columbia SHPO through an “Undertaking Review Request.” Larger design projects may require additional review by the National Capital Planning Commission (NCPC), the Commission of Fine Arts (CFA), the National Park Service (NPS, if there is a potential adverse effect within the National Historic Landmark), and/or the Advisory Council on Historic Preservation.

## NHPA SECTION 110

In the planning of capital improvement projects, AFRH must identify and address the preservation needs of its historic resources and endeavor to keep historic resources in productive use.

The intent of Section 110 of the NHPA (16 U.S.C. 480) is to ensure that historic preservation is fully integrated into the ongoing programs of Federal agencies, including planning, budgeting, and operations. Section 110 regulations state explicit Federal Agency responsibilities, including the identification and protection of historic

properties, the avoidance of “unnecessary damage” to historic resources, and the consideration of projects and programs that further the purposes of the NHPA. This includes the declaration that historic properties under the jurisdiction or control of the Agency are to be managed and maintained in a way that considers the preservation of their historic, archeological, architectural, and cultural values. The AFRH-W HPP establishes implementation actions that ensure the Agency’s compliance with NHPA Section 110. Several of these implementation actions are specifically related to capital planning and potential capital improvement projects at AFRH-W, including:

## NHPA SECTION 111

All capital improvement projects that are related to the sale, lease, or exchange of historic properties at AFRH-G or AFRH-W must take into consideration Section 111 of the NHPA. At AFRH-W, such projects must follow the procedures set forth in HP SOPs #8, #9, and #10.

The intent of Section 111 of the NHPA (16 U.S.C. 480h-3) is to authorize Federal agencies to sell, lease, or exchange historic properties that they own or control to non-Federal entities for their mutual benefit and to encourage agencies to take measures that will preserve the historic integrity of properties once they leave Federal management. HP SOPs #8 (Disposal: Demolition/Removal), #9 (Disposal: Transfer, Negotiated Sale, Donation, or Sale), and #10 (Disposal: Ground Lease) address the disposal of historic properties at AFRH-W to ensure that the spirit of Section 111 is addressed in their internal procedures.

## Executive Order 13423

The AFRH capital improvement projects that have an environmental impact through use and management of energy will be subject to Executive Order (EO) 13423 Strengthening Federal Environmental, Energy, and Transportation Management. AFRH as a Federal Agency must comply with the entirety of the EO; capital improvement planning should take this into account for projects that involve new construction and renovation, or that have the potential to reduce greenhouse gas emissions and water consumption intensity.

This Executive Order, signed by President George W. Bush on January 24, 2007, requires the implementation of a wide range of sustainable practices for all Federal agencies. The order directs Federal agencies to: (2a) improve energy efficiency and reduce greenhouse gas emissions; (2b) use renewable energy sources; (2c) reduce water consumption intensity; (2d) use sustainable environmental practices in acquisitions of goods and services; (2e) reduce pollution and use recycling programs; (2f) ensure sustainable design and high-performance buildings; (2g) ensure sustainable practices in operations of motor vehicles; (2h) ensure proper electronics stewardship.

As an independent Federal Agency, the AFRH is subject to all sections of this order. For the purposes of planning for capital improvements, however, the Agency will focus on those requirements affecting infrastructure, renovation, and new construction. Three of the Goals for Agencies are anticipated to play the largest role in planning for compliance:

1. Section 2 (a) improve energy efficiency and reduce greenhouse gas emissions of the Agency, through reduction of energy intensity by (i) three percent annually through the end of fiscal year 2015, or (ii) 30 percent by the end of fiscal year 2015, relative to the baseline of the Agency’s energy use in fiscal year 2003;
2. Section 2 (c) beginning in fiscal year 2008, reduce water consumption intensity, relative to the baseline of the Agency’s water consumption in fiscal year 2007, through life-cycle cost-effective measures by 2 percent annually through the end of fiscal year 2015 or 16 percent by the end of fiscal year 2015;
3. Section 2 (f) ensure that (i) new construction and major renovation of Agency buildings comply with the Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings set forth in the Guiding Principles for Federal leadership in High Performance and Sustainable Buildings Memorandum of Understanding (2006), and (ii) 15 percent of the existing Federal capital asset building inventory of the Agency as of the end of fiscal year 2015 incorporates the sustainable practices in the Guiding Principles.

## Executive Order 13514

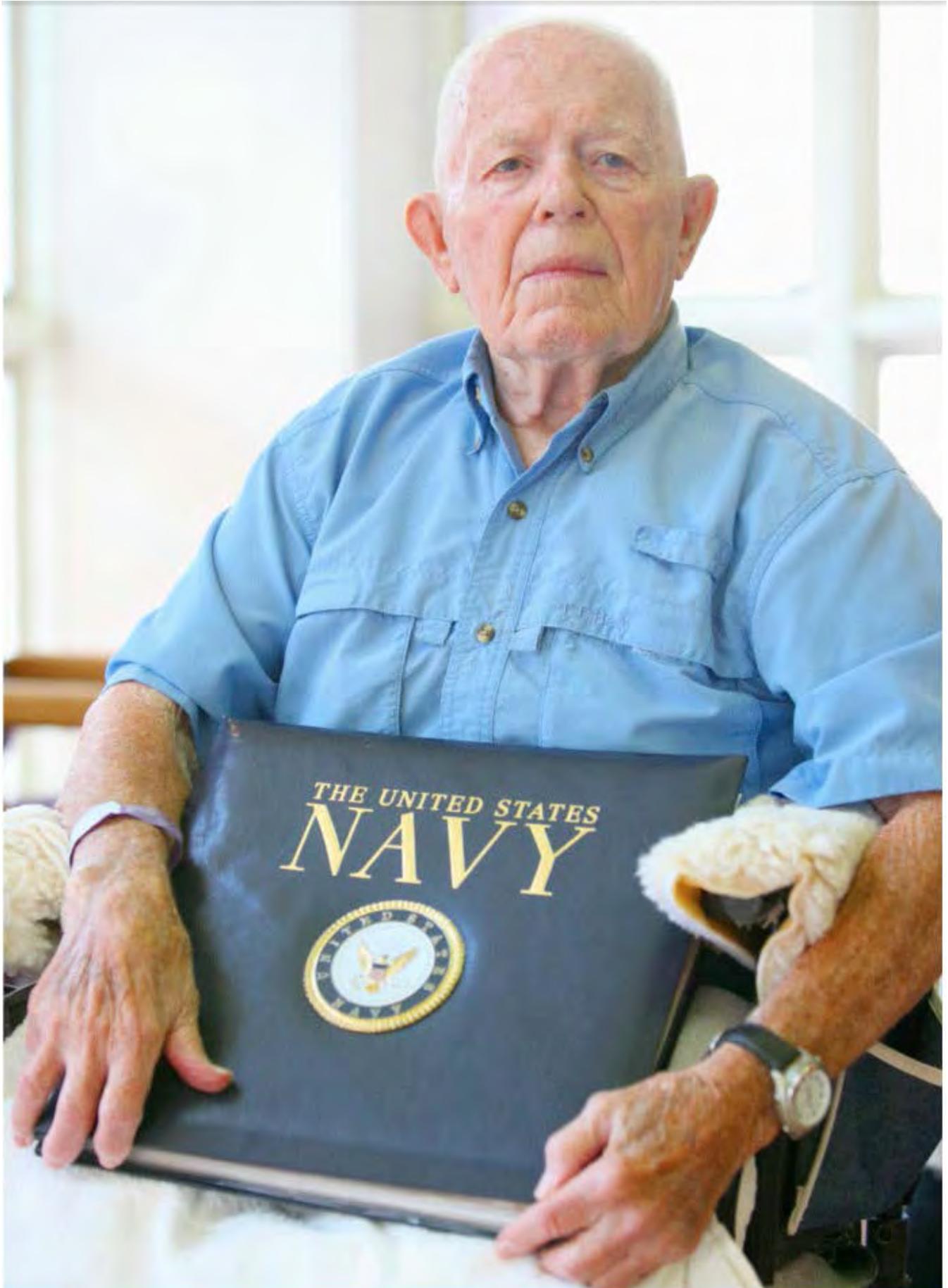
AFRH must comply with Executive Order (EO) 13514 Federal Leadership in Environmental, Energy, and Economic Performance to exhibit leadership in environmental, energy, and economic performance in its capital improvement projects. As an expansion of EO 13423, this EO places more specific requirements and target dates for compliance with the environmental regulations ordered. If capital improvement projects qualify for compliance here, they must be in keeping with the mandated Agency Strategic Sustainability Performance Plan.

On October 5, 2009, President Barack Obama ordered Federal Leadership in Environmental, Energy, and Economic Performance. It does not rescind the requirements of EO 13423, but rather expands upon them, specifically aiming “to establish an integrated strategy towards sustainability in the Federal Government and to make reduction of greenhouse gas emissions a priority for Federal agencies.”

This EO sets forth four different categories of requirements: deadlines for achieving GHG reduction targets; numerical goals for each individual Agency; non-numerical goals for each Agency; and an Agency Strategic Sustainability Performance Plan, to be developed, implemented, and updated annually. Section 2 of the order stipulates the goals that Federal agencies must meet, all of which apply to AFRH as an independent Federal Agency. The Plan for capital improvements will focus on compliance with the following Goals for Agencies:

1. Section 2 (f) advance regional and local integrated planning;
2. Section 2 (g) implement high performance sustainable Federal building design, construction, operation and management, maintenance, and deconstruction by:
  - a. Beginning in 2020 and thereafter, ensuring that all new Federal buildings that enter the planning process are designed to achieve zero-net-energy by 2030;
  - b. Ensuring that all new construction, major renovation, or repair and alteration of Federal buildings complies with the Guiding Principles for Federal leadership in High Performance and Sustainable Buildings (Guiding Principles);
  - c. Ensuring that at least 15 percent of the Agency’s existing buildings (above 5,000 gross square feet) and building leases (above 5,000 gross square feet) meet the Guiding Principles by fiscal year 2015 and that the Agency makes annual progress toward 100-percent conformance with the Guiding Principles for its building inventory;
  - d. Pursuing cost-effective, innovative strategies, such as highly reflective and vegetative roofs, to minimize consumption of energy, water, and materials
  - e. Managing existing building systems to reduce the consumption of energy, water, and materials, and identifying alternatives to renovation that reduce existing assets’ deferred maintenance costs;
  - f. When adding assets to the Agency’s real property inventory, identifying opportunities to consolidate and dispose of existing assets, optimize the performance of the Agency’s real-property portfolio, and reduce associated environmental impacts;
  - g. Ensuring that rehabilitation of Federally-owned historic buildings utilizes best practices and technologies in retrofitting to promote long-term viability of the buildings.
3. Section 2 (h) advance sustainable acquisition to ensure that 95 percent of new contract actions including task and delivery orders, for products and services with the exception of acquisition of weapon systems, are energy efficient... water efficient, biobased, environmentally preferable... non-ozone depleting, contain recycled content, or are non-toxic or less-toxic alternatives, where such products and services meet Agency performance requirements.

Further, Section 8 of the EO mandates that AFRH develop an Agency Strategic Sustainability Performance Plan for the ten years beginning in fiscal year 2011 and continuing through fiscal year 2021. The Plan must state how the Agency will achieve all sustainability goals and targets in Section 2 of the document, and therefore has the potential to affect the implementation of many capital improvement projects at AFRH.



Armed Forces Retirement Home - Washington

# MASTER LANDSCAPE PLAN



**AFRH**

The Premier  
Retirement Community  
for America's Veterans



SEPTEMBER 2012



# AFRH-W MASTER LANDSCAPE PLAN



Prepared for: Armed Forces Retirement Home (AFRH)

Prepared by: Wylly Landscape Architecture  
PRESERVE/scapes Consulting

Date: September 2012

Assistance by:

INTEC aec - Technical assistance

ICF International - Sustainability program assistance

Consult CLC - General program assistance



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# GLOSSARY

<i>TERM/ ACRONYM</i>	<i>DEFINITION</i>
Accessibility	The degree to which a product, device, service or environment is accessible to as many individuals as possible. A barrier to accessibility can be described as anything that prevents a person from fully participating in all aspects of society. AFRH strives to achieve accessibility in: architecture, attitudes, communication, community integration, employment, environment, finances, and transportation.
ADA	Americans with Disabilities Act
AFRH	Armed Forces Retirement Home; an independent agency within the executive branch of the United States Government; also referred to in this document as “the agency.” AFRH manages two campuses, which are located in Washington, DC, and Gulfport, Mississippi.
AFRH-W	The Washington, DC campus of AFRH; also referred to in this document as “the Home,” “the property,” and “the campus.”
Aging in Place	the ability of an individual to remain in one’s own home or living unit of a retirement community for as long as possible, making use of supportive services, technology, special design features, and other assistance as needed in order to live as independently and as comfortable as possible as their needs change over time. A pilot program for Aging in Place was initiated at AFRH-W in February 2010.
CARF	Commission on Accreditation of Rehabilitation Facilities; an independent, non-profit accrediting body whose mission is “to promote the quality, value, and optimal outcomes of services through a consultative accreditation process.” AFRH applied for and received a five-year accreditation from CARF in 2008.
CFA	Commission of Fine Arts; the federal agency charged with giving expert advice to the President, Congress, and the heads of departments and agencies of the Federal and District of Columbia governments on matters of design and aesthetics, as they affect the Federal interest and preserve the dignity of the nation’s capital; many capital projects at AFRH-W are subject to CFA review.
CIP	Capital Improvement Plan; the plan developed by AFRH in 2011 and updated on an annual basis to plan capital improvements on each of the agency’s two campuses for a period of ten years.
HPP	Historic Preservation Plan; the plan developed by AFRH in 2007 as part of its compliance with the National Historic Preservation Act.
MLP	Master Landscape Plan (this document)
MP	Master Plan; the development plan for AFRH-W created by AFRH and approved by NCPC in 2008.
Person-centered Care	Defined by AFRH as the careful manner in which Resident needs are considered while developing responsive plans of care and delivering meaningful services. The concept of Person-centered Care reflects a shift from “care and protection of the body” to “support of people in obtaining lives of personal satisfaction.” The form of Person-centered Care implemented at AFRH-W is often referred to as “Resident-centered Care.”
NCPC	National Capital Planning Commission; the federal government’s planning agency for the National Capital Region that protects and enhances the historic, cultural, and natural resources of the national capital; NCPC coordinates the planning efforts of federal agencies that construct and renovate facilities within the National Capital Region, and many capital projects at AFRH-W are subject to NCPC review.
PMD	Personal Motorized Device; a common form of transportation for residents with limited mobility. Also sometimes referred to as Personal Motorized Vehicle (PMV) or Battery Powered Vehicle (BPV).

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# INTRODUCTION



The Master Landscape Plan (MLP) for the Armed Forces Retirement Home – Washington (AFRH-W or Home) is a project-based plan to guide AFRH in realizing the potential of its expansive grounds as an amenity to its residents, staff, visitors and surrounding communities. AFRH will use the MLP in coordination with the AFRH-W Master Plan (2008) and the Capital Improvement Plan (CIP) to develop a cohesive program of landscape improvement projects. The implementation of the MLP will promote a therapeutic environment for residents and create new opportunities for activity and fellowship in the Home’s picturesque setting.

## CONTEXT

The Armed Forces Retirement Home-Washington (AFRH-W, or the Home) is a 272-acre campus located in our nation’s capital. The Home was established in 1851 on a large rural retreat on the outskirts of the Federal City. In the late nineteenth century, the Board of Commissioners of the Home undertook extensive landscape improvements that embraced both designed and natural landscape features. The result of these improvements was a therapeutic environment for the aging and an urban park for use by both residents and visitors. Over the next century, the Home remained a quiet enclave amidst rapid urban development, and its picturesque landscape was an amenity for communities both inside and outside its gates. The campus was officially closed to the public in the 1950s, but the Home’s residents continue to enjoy the benefits afforded by its grounds. AFRH plans to embark on a new phase of campus improvements with a renewed focus on the intersection of gerontology, landscape design, and community.

## VISION

The AFRH-W Master Landscape Plan (MLP) will guide AFRH in realizing the potential of the campus grounds as an amenity to residents, staff, and visitors. At the heart of this vision is the philosophy that a therapeutic landscape can be a powerful component of the Aging in Place concept. The grounds of AFRH-W provide numerous opportunities for recreation, fellowship, and therapy that could significantly enhance AFRH’s ability to embrace Resident-centered Care at the Home. The MLP will also guide AFRH in realizing its vision of restoring public access to defined areas of the campus and providing opportunities to engage the community in the residents’ experience of the landscape. This vision is part of the agency’s strategic goal of leveraging stakeholders and expanding its circle of influence outside the physical boundaries of the Home. Restoring public access to an improved AFRH-W campus could increase opportunities for interaction between residents and neighbors and result in the development of a mutually beneficial relationship between the agency and surrounding communities.

AFRH will use the MLP to plan landscape improvement projects that achieve its vision for the Washington campus. AFRH will incorporate select MLP project concepts into the AFRH-W CIP to be funded by the agency’s annual capital budget for the next ten years. For projects not included in the CIP and capital budget, the MLP will guide AFRH in planning for additional landscape improvement projects as additional funding becomes available.

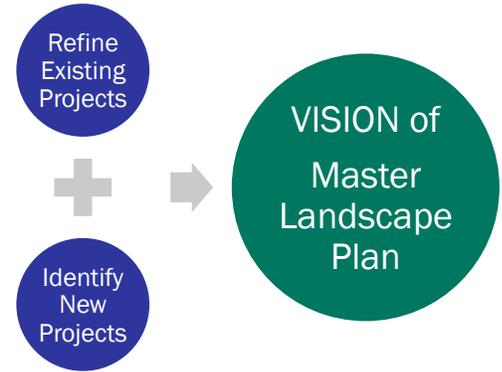
## PURPOSE

The AFRH-W MLP supplements the existing AFRH-W Master Plan (2008) to provide a comprehensive landscape program for the area of the Washington campus that AFRH will continue to use for agency purposes (AFRH Zone). The MLP includes specific projects and guidelines that collectively reflect the agency’s vision for the Washington landscape. The plan will guide both the agency and design professionals to ensure that discrete landscape improvement projects are aesthetically and programmatically cohesive in both design and implementation. AFRH should retain qualified design professionals to implement the project concepts and guidelines of the MLP.

## OBJECTIVES

AFRH establishes the following objectives for the AFRH-W MLP:

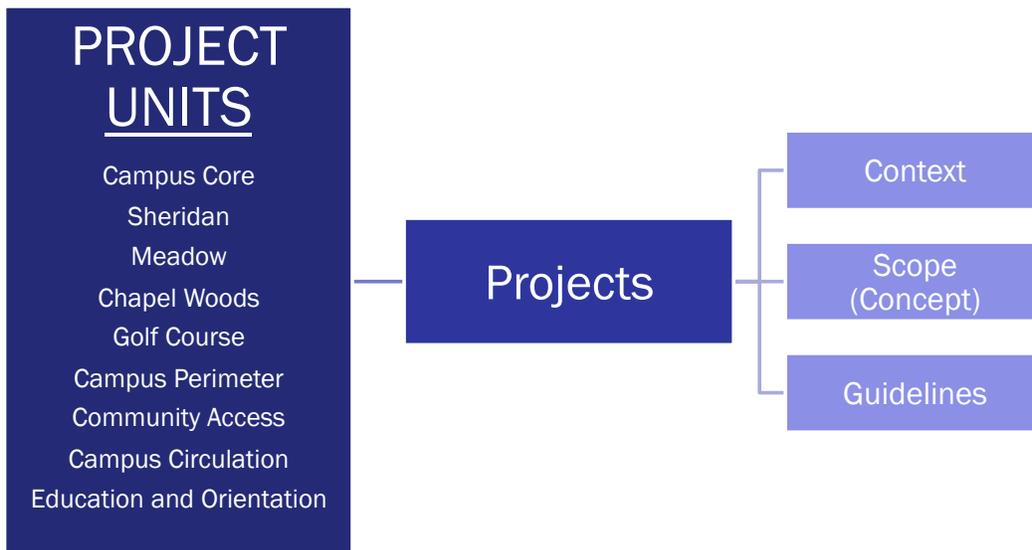
- Beautify the campus;
- Encourage activity throughout the grounds;
- Integrate agency programming with the landscape;
- Create a welcoming and safe environment;
- Celebrate campus history and military heritage;
- Incorporate and expand sustainability goals; and
- Engage the surrounding community.



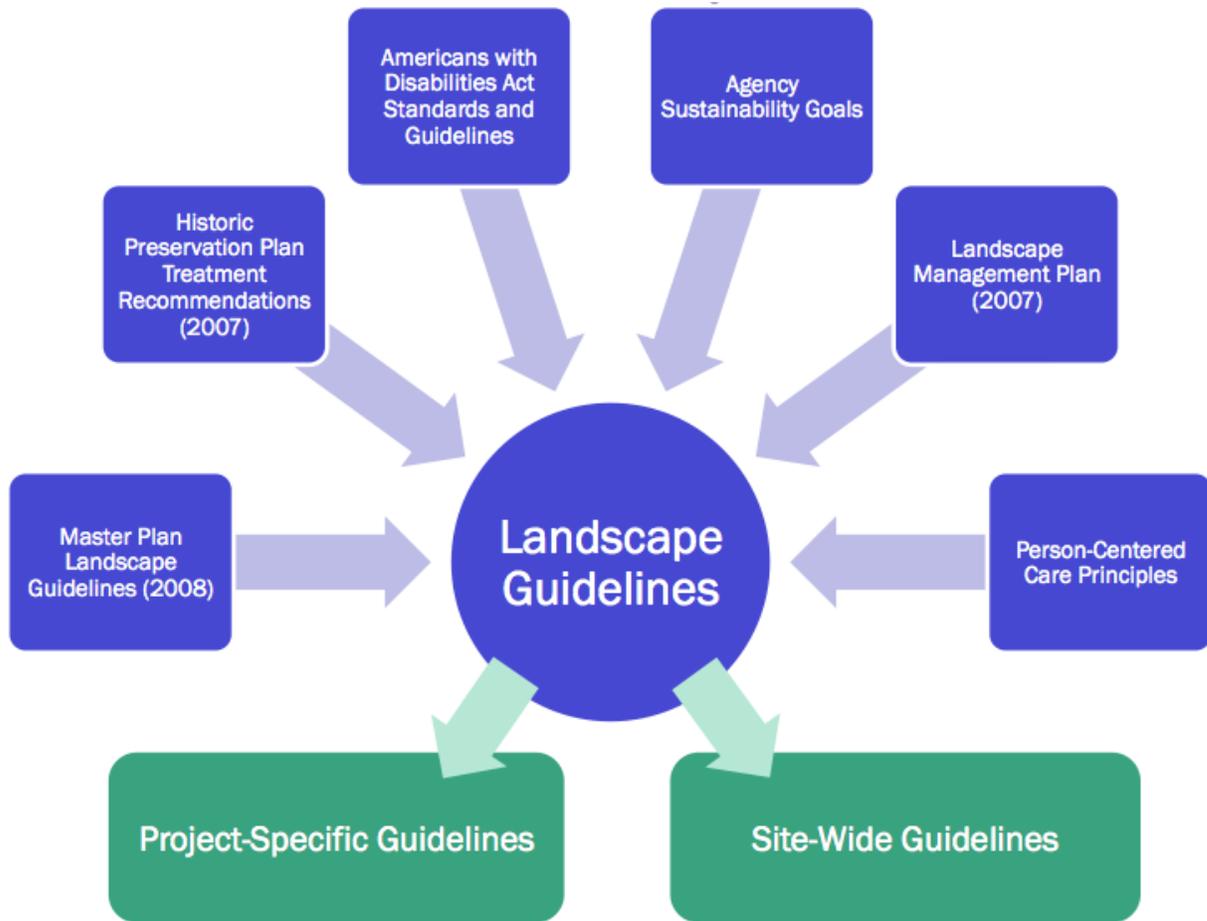
## APPROACH

To meet these objectives, the AFRH-W MLP provides concepts for discrete landscape improvement projects, as well as landscape guidelines that can be used in the implementation of these and other future projects on the campus. The program of landscape improvement projects was developed by: expanding and refining the scopes of landscape improvement projects included in the AFRH-W CIP; identifying ideas for new projects through planning sessions conducted with AFRH staff, residents, and consultants; and combining previously planned projects and new projects into a single plan that achieves the agency’s larger vision for AFRH-W.

The MLP organizes the resulting list of landscape improvement projects into nine (9) *Project Units*. The Project Units are based on programmatic and locational relationships among the individual projects within the units and provide potential groupings for project design and implementation. Within the Project Units, the MLP presents each landscape improvement project with a context statement, a concept-level scope, and project-specific guidelines.



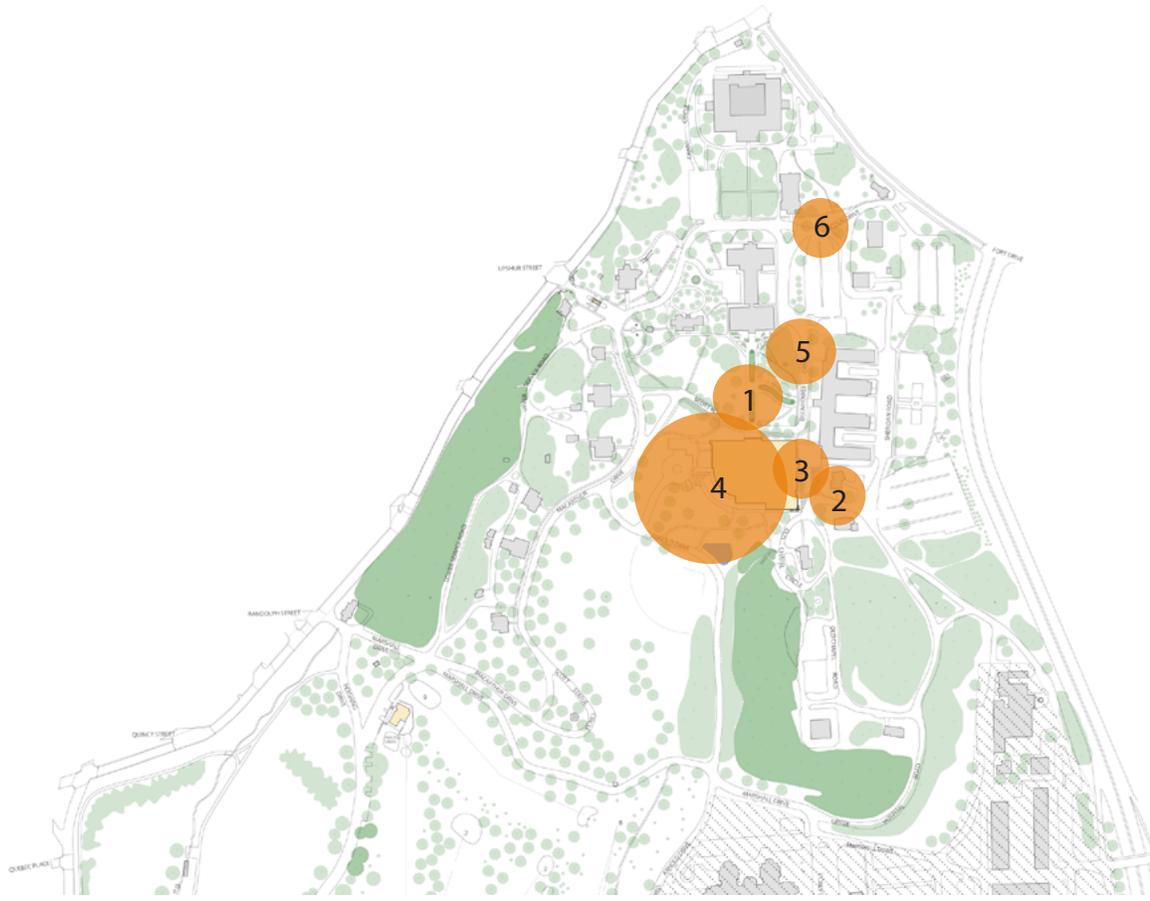
In addition to the guidelines provided for each project, the MLP also includes site-wide design guidelines that apply to all landscape improvement projects. Both project guidelines and site-wide design guidelines will ensure that all landscape improvements are consistent the AFRH-W Master Plan and AFRH-W Historic Preservation Plan, as well as with relevant standards, guidelines, principles, and best practices related to Sustainability, Accessibility, Person-centered Care, and landscape management. The guidelines incorporate and supplement guidelines from several existing AFRH-W plans and documents.



**PROJECT SUMMARY**

The following maps and tables summarize the individual landscape improvement projects presented in the AFRH-W MLP. Maps and tables are organized by Project Unit.

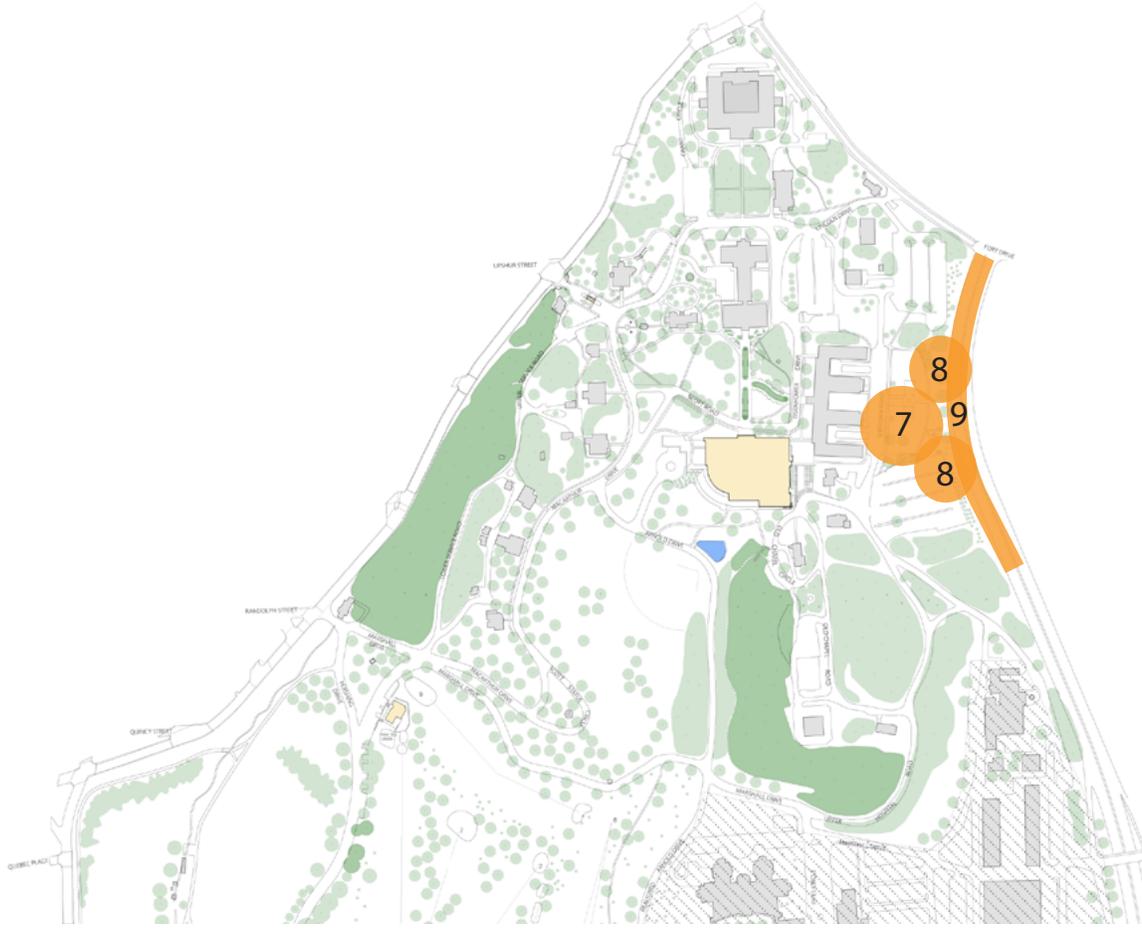
## CAMPUS CORE PROJECT UNIT



This unit focuses on the improvement of the area of campus most actively used by AFRH residents and staff. These projects are intended to support the ongoing functions of the Scott and Sheridan Buildings, to protect and enhance the historic character of the landscape, and to create an appealing place for residents and staff to enjoy the landscape in close proximity to the primary residential and healthcare facilities. Several of these projects are already being implemented as part of the construction of the new Scott Building.

1 New Scott Building Landscape	provide a setting for the new Scott Building that preserves the historic character of the site, strengthens connections to the campus, provides a therapeutic landscape for the residents, and creates a sustainable landscape incorporating environmental and low impact development design principles.
2 Sherman Promenade Realignment	realign the pedestrian connection between the Sherman Building and the New Scott Building to provide a straight path between the entrances of the two buildings, improve the overall landscape conditions of the quadrangle, and further reinforce the historic north-south axis through the campus.
3 Quarters 40 Pavilion	construct an open-air wood frame pavilion adjacent to Quarters 40 and provide new landscaping to improve the appearance of this prominent site on campus and tie Quarters 40 into the programming of the new Scott Building.
4 Sheridan Plaza	close the section of Eisenhower Drive between the Sheridan Building and the new Scott Building and construct a pedestrian plaza to provide a compatible landscape between the new and existing buildings and a safe surface connection for pedestrians.
5 Sheridan-Sherman Landscape Restoration	remove the temporary enclosed pathway between the Sheridan Building and Sherman Building and restore the landscape to its condition prior to the disturbance.
6 Stanley Chapel Picnic Area	provide a new outdoor gathering area east of Stanley Chapel, including picnic tables, chairs, and/or benches to activate this area of campus and provide a place of fellowship for the congregation of Stanley Chapel.

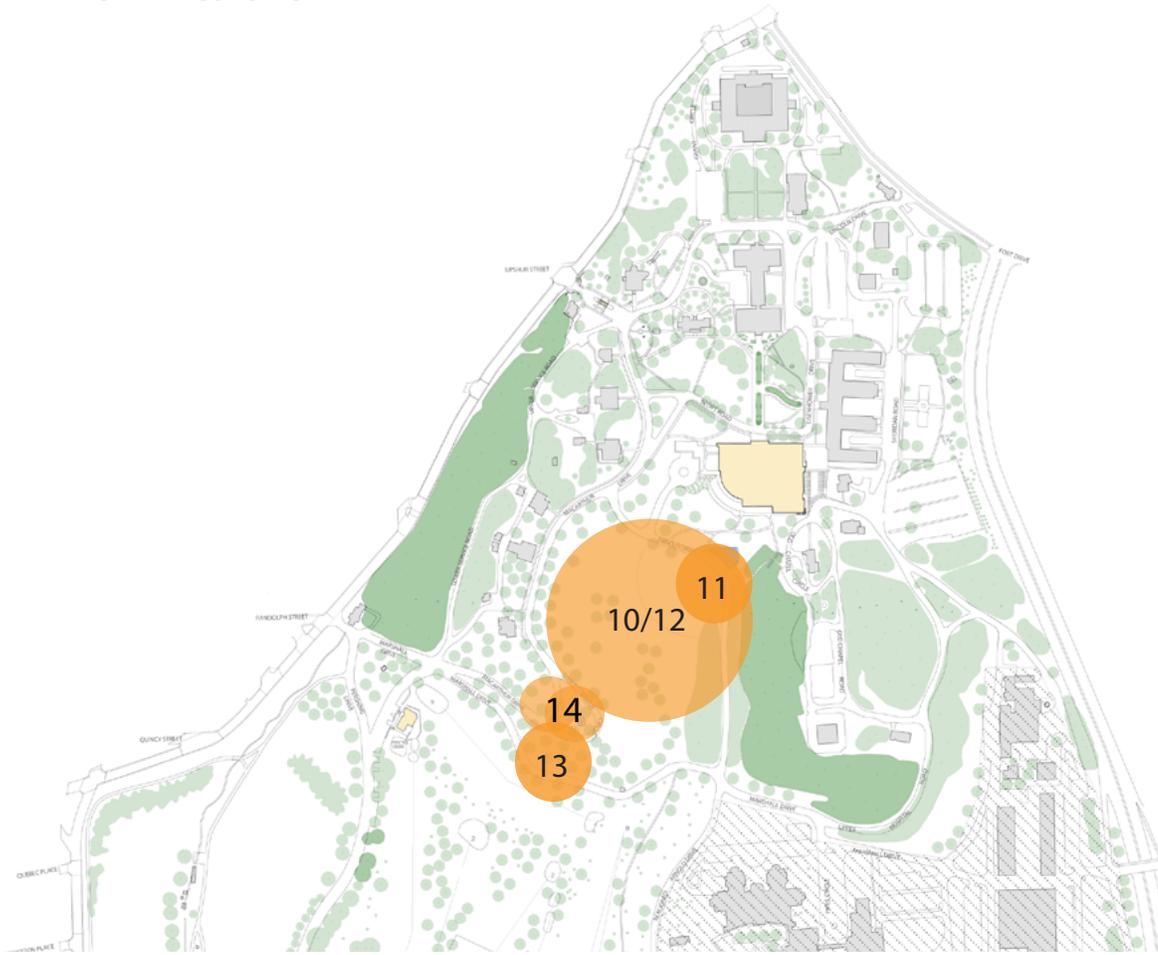
## SHERIDAN PROJECT UNIT



This project unit comprises the area between the Sheridan Building and North Capitol Street. Projects and guidelines associated with this unit are intended to encourage the use of existing amenities, maintain and enhance the formal character of the modern landscape, further activate the space to ensure that it is maintained, and improve the appearance of the campus from the public road.

7 Raised Beds and Garden Plots	provide garden plots and raised beds to support a program of gardening for residents of all levels of care and to activate this area of the campus; include general improvements that make this space more welcoming, comfortable, and attractive.
8 Plane and Tank Rehabilitation	clean and repaint the M48 Patton Tank and the F-86 Saber Jet Airplane to maintain and improve the condition of the static displays.
9 Sheridan Plantings	enhance the plantings along the east perimeter fence between the Sheridan Building and North Capitol Street to improve the visual appearance of the campus and to provide a better sound buffer from the busy public road; add shade and color to paths and seating areas by planting small flowering trees.

## MEADOW PROJECT UNIT



Projects within this unit are generally located in the open meadow area bounded by the new Scott Building (north), Chapel Woods (east), the golf course (south) and the Quarters (west). Guidelines associated with this area are intended to maintain the sweeping views of the landscape from the Scott Building, enhance the designed historic viewsheds from Scott Statue to the skyline of downtown Washington, encourage recreational use, and provide a destination within the landscape.

10 Meadow Landscape Restoration	return the meadow to an open landscape feature that considers the expansive views from the campus core, through the picturesque grounds, and to the city beyond.
11 Softball Field Restoration	restore the softball field in its original location and condition prior to the disturbance of the new Scott Building construction to provide an area for active recreation that can be enjoyed by residents and staff.
12. Golf Hole Relocation	relocate two existing golf holes to the meadow that are currently located in an area slated for development in Zone A.
13 Scott Statue Viewshed Restoration	selectively prune existing vegetation to restore the historic designed viewshed from the Scott Statue.
14 Scott Statue Gathering Area	provide a new outdoor gathering area in proximity to the Scott Statue, including picnic tables, chairs, benches, and temporary parking for golf carts.

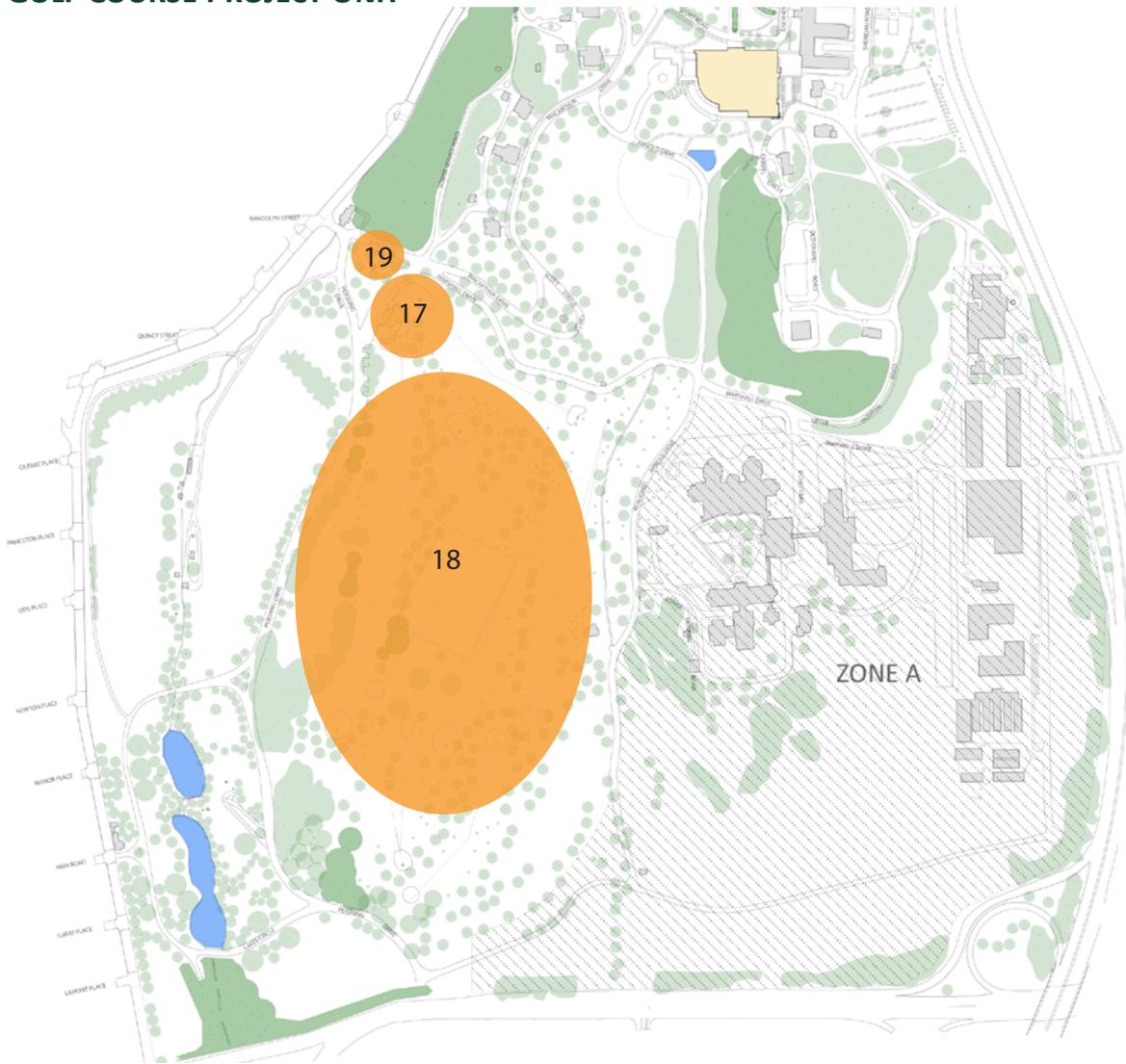
# CHAPEL WOODS PROJECT UNIT



This unit comprises projects within the wooded area around Rose Chapel. Projects and Guidelines associated with this unit are intended use the serene setting of this natural woodland for passive and active therapeutic horticulture in close proximity to the campus core.

15 Meditation/Healing Gardens	convert a small area south of Rose Chapel to a meditation/healing garden to provide a quiet place for reflection for use by residents, staff, and visitors.
16 Greenhouse	provide a greenhouse to support the gardening program for residents.

## GOLF COURSE PROJECT UNIT



The projects and guidelines associated with this unit are intended to enhance the functionality and appeal of the AFRH-W golf course for residents and visitors.

17 Golf Clubhouse	demolish the existing 1,000-square foot clubhouse and construct a new 3,000-square foot clubhouse in the same location on the northwest corner of the golf course to improve its appearance and amenities.
18 Campus Irrigation	install a permanent irrigation system as part of a larger storm water management plan for the campus to improve the appearance of the golf course and grounds, while supporting a more sustainable and comprehensive storm water system.
20 Golf Course Gathering Area	improve the existing outdoor gathering area adjacent to the AFRH-W Golf Course by creating a more accessible landscape around the existing picnic tables and chairs.

## CAMPUS PERIMETER PROJECT UNIT



The projects and guidelines for this unit are intended to improve the “public face” of the campus, to create opportunities for interaction between AFRH and the public communities of Petworth and Park View, and to provide controlled public access to the campus.

21 Eagle Gate Renovations	reconfigure and improve the appearance of the main entrance to the campus by providing three vehicular traffic lanes at Eagle Gate and a central location for a new guardhouse.
22 Woodland Rehabilitation	clear much of the overgrown understory and debris of Quarters Woods to improve the appearance of the campus from the public road and accommodate residents, staff, and visitors who want to walk through the natural setting of the woodland.
23 Wall and Fence Rehabilitation	rehabilitate the historic masonry and iron fence and wall that runs along the west and north perimeter of the campus to improve the appearance of the campus and preserve this important historic resource.
24 Gatehouse Rehabilitation	rehabilitate the historic gatehouses to support the increased utilization of the Home’s property and the possible opening of some of its gates for public access.
25 Zone A Fence	install a fence to secure all areas of the campus that will continue to be used by AFRH once Zone A is developed.

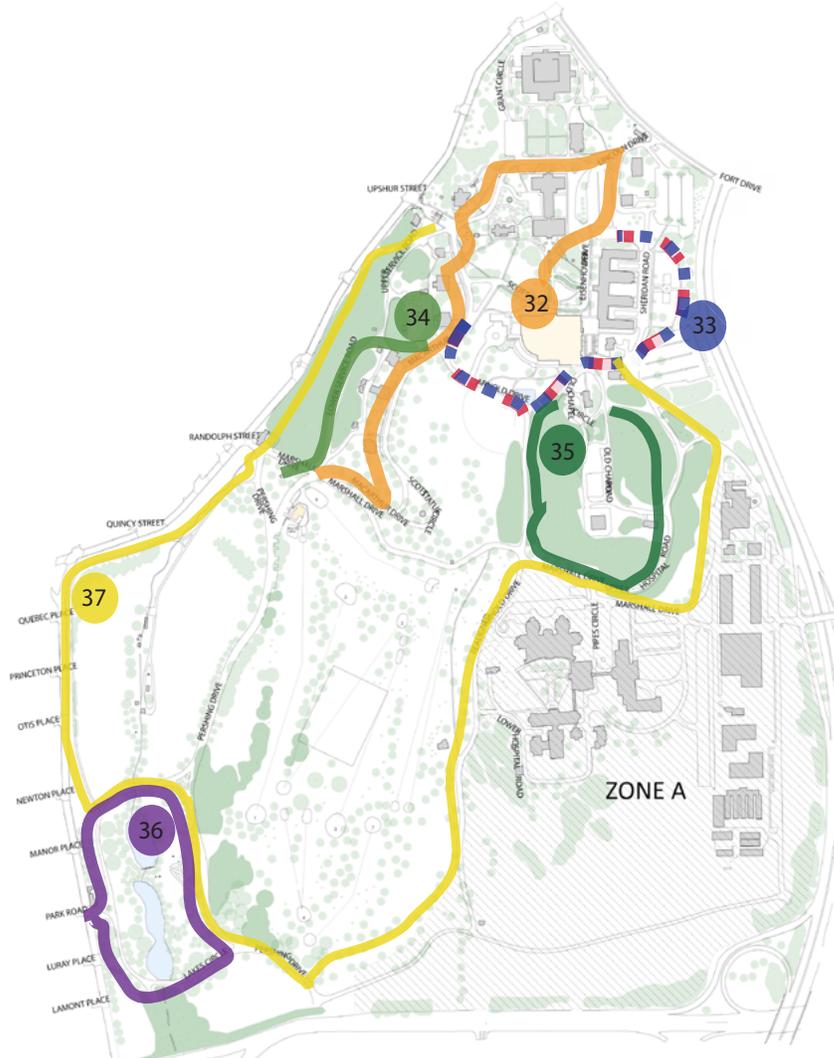
## COMMUNITY ACCESS PROJECT UNIT



This unit focuses on the southwest corner of the campus where AFRH intends accommodate and support limited public access and use. These projects will help AFRH toward reaching one of its strategic goals: to expand its circle of influence outside the physical boundaries of the Home and engage external stakeholders.

25 Garden Plots	remove the existing garden storage and terminate maintenance, upkeep, and supply of the gardens; allow the plots to return to natural fields unless they are incorporated into a program of public gardening activities supported in the southwest area of the campus.
26 Picnic Areas	work with the community to create designated picnic areas in the southwest area of the campus.
27 Dog Park	work with the community to create a dog park in the southwest area of the campus, preferably in the area south of the lakes.
28 Lakes Outdoor Gathering Area	improve the existing outdoor gathering area at the Lakes for use by both residents and the community.
29 Lakes Fence	remove the existing chain link fence and install a new fence that better meets safety and aesthetic requirements.
30 Lakes Rehabilitation	rehabilitate the lakes and surrounding areas in the southwest area of the campus, including dredging, retaining wall repair, landscaping rehabilitation, and fountain repair.
31 Bridge Rehabilitation	rehabilitate the historic bridges to beautify the lakes and improve the safety of the entire area intended for public access.

## CAMPUS CIRCULATION PROJECT UNIT



Projects and guidelines for this unit are intended to improve the existing multi-modal circulation throughout the campus, encourage additional pedestrian and PMD movement through campus, and provide educational and interpretive materials that enhance and activate the landscape.

32 Campus History Trail	create a Campus History Trail to educate residents, staff, and visitors about the history of the Home and the development of the Washington campus while providing a continuous pedestrian path from the campus core to the lower half of the campus.
33 Military Heritage Trail	create a Military Heritage Trail to educate residents, staff, and visitors about the history of the five military branches and the military heritage at the Home.
34 Quarters Woods Trail	close the Lower Service Road to vehicles and designate it as a trail for pedestrians only; add a new section of path to connect the Quarters Woods Trail to MacArthur Drive.
35 WIMSA Trail	rehabilitate the existing WIMSA trail and extend the trail around the east side of Chapel Woods to create a loop; consider relocating exercise equipment to the eastern leg of the loop to further activate the trail.
36 Park Trail	accommodate the implementation of a Park Trail by community groups or other entities to educate visitors about the historic use of the Home as a farm and public park.
37 Perimeter Trail	provide a trail that follows the inside perimeter of the campus to accommodate residents, staff, and visitors with a higher level of mobility.
38 Multi-Modal Circulation	re-stripe and re-sign roads to allow for safer circulation of PMDs and pedestrians within a multi-modal circulation system.
39 Paving and Sidewalk Repair	repair existing roads and sidewalks and improve physical accessibility throughout the campus for PMDs and wheelchairs.

## EDUCATION AND ORIENTATION PROJECT UNIT

Projects and guidelines for this unit are intended to optimize utilization of new and existing amenities throughout the grounds by improving the sense of familiarity and security with the landscape. This unit also addresses opportunities for residents with little or no mobility to enjoy the landscape from the comfort and safety of the indoors.

- Bloom/Color Guides
- Trail Guides
- Amenity Maps
- Virtual Trails and Guides
- Tours
- Classes



*MacArthur Drive at AFRH-W*

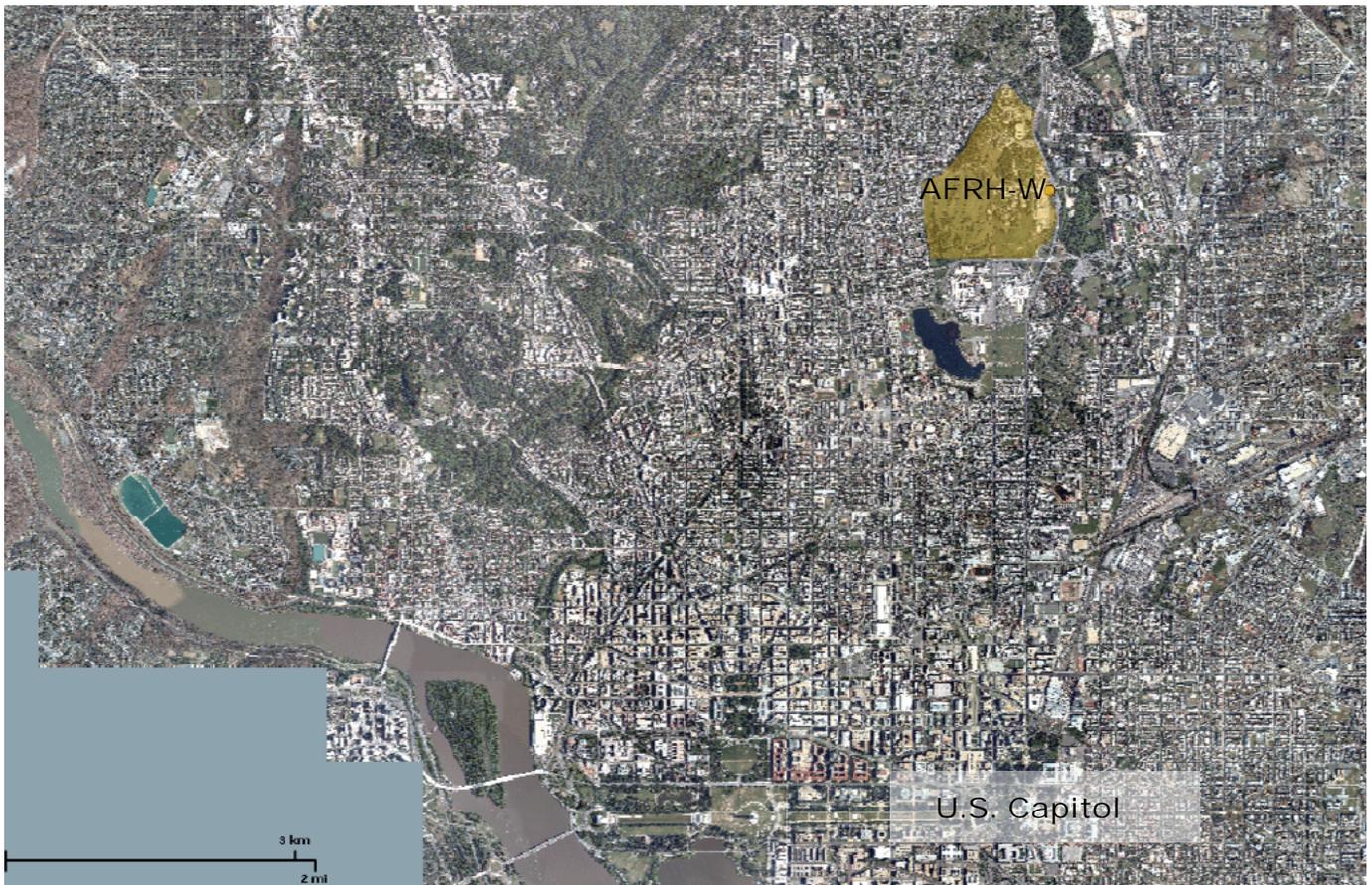
# SITE DESCRIPTION AND ANALYSIS

## LOCATION

AFRH-W, also known as the Home, is a 272-acre campus located in the northeast quadrant of Washington, DC, at 3700 North Capitol Street, NW. The site is bounded by North Capitol Street to the east, Harewood Road to the north, Rock Creek Church Road and Park Place to the west, and Irving Street to the south. Approximately three miles north of the U.S. Capitol Building and National Mall, the Home was sited on the third highest elevation in the city, providing expansive views of the Washington skyline from several locations within the campus.

The property is surrounded by a diverse urban setting. The low-scale residential development of the Park View and Petworth neighborhoods define the western boundary of the campus. The landscapes of Rock Creek Church Cemetery and the United States Soldiers' and Airmen's Home National Cemetery, both located to the north of campus, contrast with the medical hospital development that is located across Irving Street to the south of campus. To the west, a local high school and 46 acres of undeveloped land, formerly part of the Home's property, separate AFRH from the campus of The Catholic University of America.

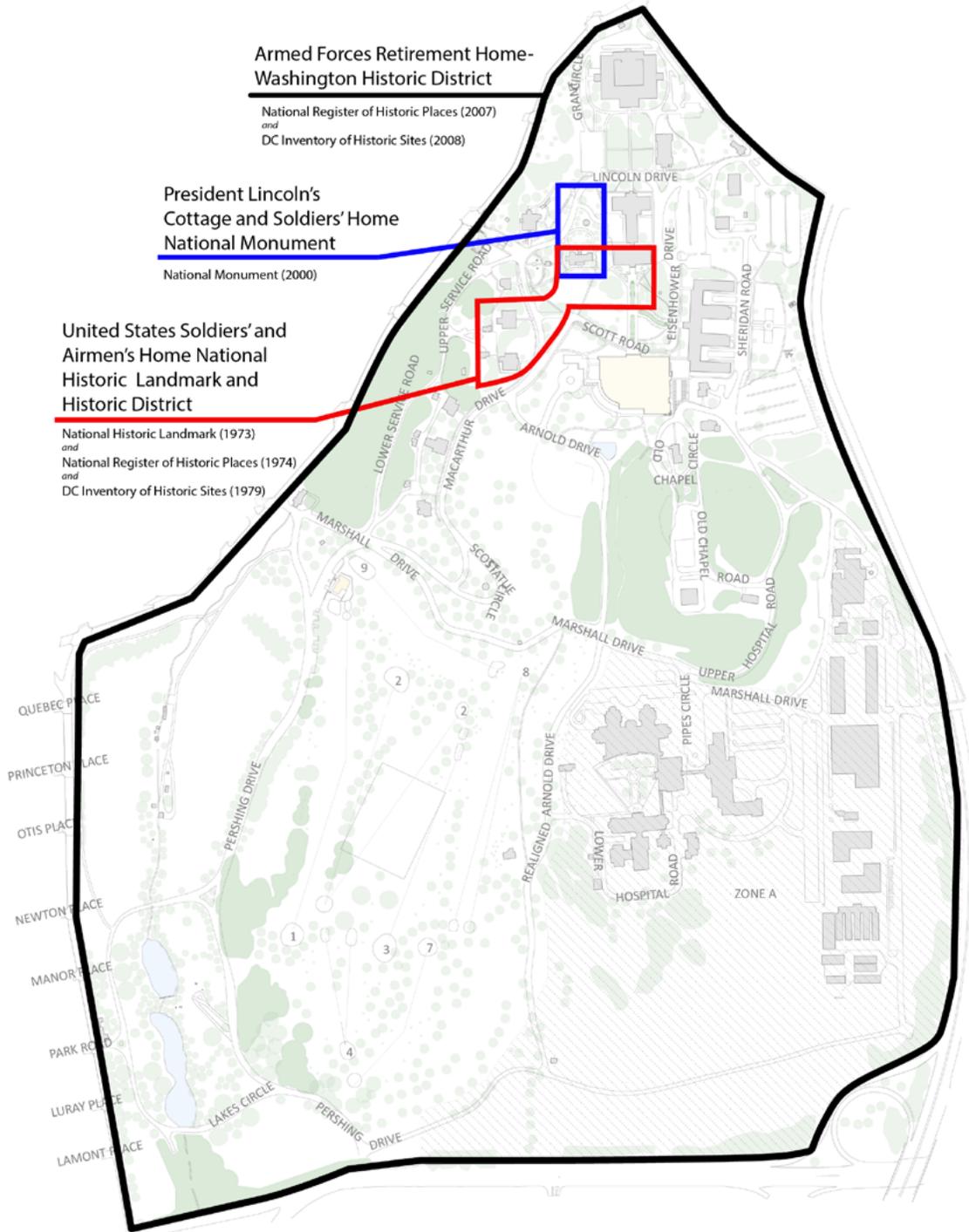
AFRH is located in Zone 7 of the United States Department of Agriculture (USDA) Plant Hardiness Zones, specifically Zone 7A. The USDA uses these zones to provide information about the types of plants that thrive in specific regions of the country. The property is also located within the Embayed Section of the Coastal Plain Physiographic Region, as defined by the United States Geological Survey, which relates to the area's terrain texture, rock type, and geological structure and history.



Map courtesy of the DC Office of Planning, [propertyquest.dc.gov](http://propertyquest.dc.gov)

# HISTORIC SIGNIFICANCE

AFRH-W is listed in its entirety as a historic district in the National Register of Historic Places (2007) and District of Columbia Inventory of Historic Sites (2008). Within the historic district is the United States Soldiers' and Airmen's Home National Historic Landmark (NHL) and President Lincoln and Soldiers' Home National Monument (NM). The historic district has a national level of significance and is protected under federal and local historic preservation laws and regulations.



Campus map showing preservation designations (PRESERVE/scapes, based on map provided in the 2008 AFRH-W Programmatic Agreement)

## SITE ANALYSIS

In 2007, a *Site Analysis* was prepared by Wylly Landscape Architecture, Jerry Turner & Associates, and Pitchford Associates to support the AFRH-W Landscape Maintenance Plan. The site analysis concentrated on the area defined in the 2005 AFRH-W Draft Master Plan as the area to remain under the management of AFRH. A series of maps were produced to explain the existing conditions including:

- Visual factors;
- Existing vegetation and climate data;
- Soils;
- Hydrology;
- Topography with Slope analysis;
- Circulation patterns and noise factors;
- Security requirements; and
- Program analysis.

## CLIMATE

Typically, Washington, DC receives one inch of water from rainfall per week. Prevailing winds can be quite strong, ranging from 9-10 mph southwesterly in the summer to 10-12 mph northwesterly from October to June.

## VISUAL FACTORS

The site is dominated by rolling hills, mature trees, historic and modern buildings, and curvilinear roads and trails. Some building clusters are arranged in a rectilinear manner or along axes, forming organized plazas or tree-lined spaces between the buildings. Other buildings are sited to relate to the topography and contribute to the picturesque character of much of the campus.

The significant hills on the grounds create attractive views of the Home's grounds, the surrounding neighborhoods, and the downtown Washington skyline. The new Scott Building's mass has been shifted to the east to restore the view from the Lincoln Cottage. Trees have been removed that have interfered with the view of the Capitol from the Scott Statue. While views into and out of the campus are encouraged in several locations, other locations require screening of views and noise, particularly along North Capitol Street.

## VEGETATION

In 2007, Pitchford Associates examined all trees on the north section of campus that were greater than six inches in diameter. The survey included an inventory of trees with a twelve-inch dbh (diameter at breast height), resulting in the identification of 452 individual major trees. Pitchford also inventoried 379 minor trees. Pitchford attached numbered metal tags corresponding to a key plan to each inventoried tree and noted any issues with the trees' conditions. The report by Pitchford provides maintenance recommendations and associated cost estimates for each inventoried tree.

Pitchford conducted fixed plot surveys within several forested areas around the Rose Chapel area. The area east of the Rose Chapel has had the understory removed and the area under the mature trees planted in lawn. The health of the trees in this area is declining due to age and competition with the lawn. The west side of the Rose Chapel Woods contains a healthy mix of large maturing and understory trees. Young replacement trees are in the process of growing up to fill in when needed.

Pitchford also provided a diversity chart based on the major trees surveyed on the north end of campus. The arborist identified Willow Oaks (58), Chestnut Oaks (39), and Pin Oaks (38) as the most abundant species. Two additional oaks made the list of the top ten most numerous trees. The Home should make it a priority to increase the diversity of trees. Recommendations were made to the Home to diversify the inventory of trees to minimize potential loss due to an insect or disease outbreak, such as Dutch Elm Disease,



*The Meadow, looking toward LaGarde (photo by Wylly, 2007)*

## SOILS

The soils within the main campus were created out of the weathering of Piedmont rocks in place. The sediment consisting of coarse and fine sand, silt, clay, and rock fragments deposited over long periods of geologic time. This chart corresponds to the soils map and gives a general idea of the main soils at AFRH.

Key	Name	% of Site	Slope	pH	Comments
ScB, ScC, ScD, SgB, SgC, Uxb, UxC	Sassafras (gravelly sandy loam)	64.4%	0-8% gen., max. 40%		Easily eroded, well drained, often low water capacity
WoB, WpB	Woodstown (sandy loam)	21.5%	0-8%	5.7	Well drained, good water capacity
U3	Udorthents (sandy)	3.9%	Flattish	5.3	Excessively well drained, low water capacity, wind eroded
CxC	Croom-Urban Land complex (loam & gravelly clay loam)	2.9%	8-15%	4.9	
lk	Luka (Sandy Loam)	1.5%		5.5	Frequent flooding

The majority of the soils' gravelly character presents a challenge to stabilize slopes, build trails, and retain large mature trees. Since the Luka soil area has the potential for flooding and is in line with the natural drainage pattern, it has the potential to be used in the future for a storm water area.

Loam is soil composed of sand, silt, and clay in relatively even concentration (about 40-40-20% concentration respectively). Loam soils generally contain more nutrients and humus than sandy soils, have better drainage and infiltration of water and air than silty soils, and are easier to till than clay soils. Sandy loam has less nutrients than loam soils.

The U3 or Udorthents area is the sand backfill over the reservoir installed by the city in the middle of the AFRH-W Golf Course. All water that is applied to that area drains completely into the soil, resulting in little to no runoff. Any irrigation in that area should have zones and coverage separate from the rest of the golf course. It should not be assumed that any of this water will run off into the lakes for storm water calculations.



USDA Soils Map of the Armed Forces Retirement Home (AFRH Zone only)  
 (Refer to the previous chart for soil names)

### Selected Interpretations

- These soils are very limited for paths and trails – CxC, ScD due to steep slopes and the sandy consistency of U3
- These soils are very limited for picnic areas – CxC, slow water movement; ScB, ScC, ScD, too high gravel content; ScC & ScD, too steep; U3, too sandy
- These soils have high potential for severe erosion hazard - CxC, ScC, ScD, SgC and UxC.
- The entire site is very limited for roads and streets
- The entire site has a high corrosion factor for concrete based on sulfate and sodium content, texture and moisture content, and acidity of the soil.

### Lawns, Landscaping and Golf Fairway

The following table and map indicate the areas of campus that are very limited, somewhat limited, and not limited for use as lawns, landscaping, and fairways.

Rating	Acres	%
Very Limited	98.5	48.7%
Not Limited	63.5	31.4%
Somewhat limited	18.4	9.1%
Null or Not Rated	21.9	10.8%
Totals	202.3	

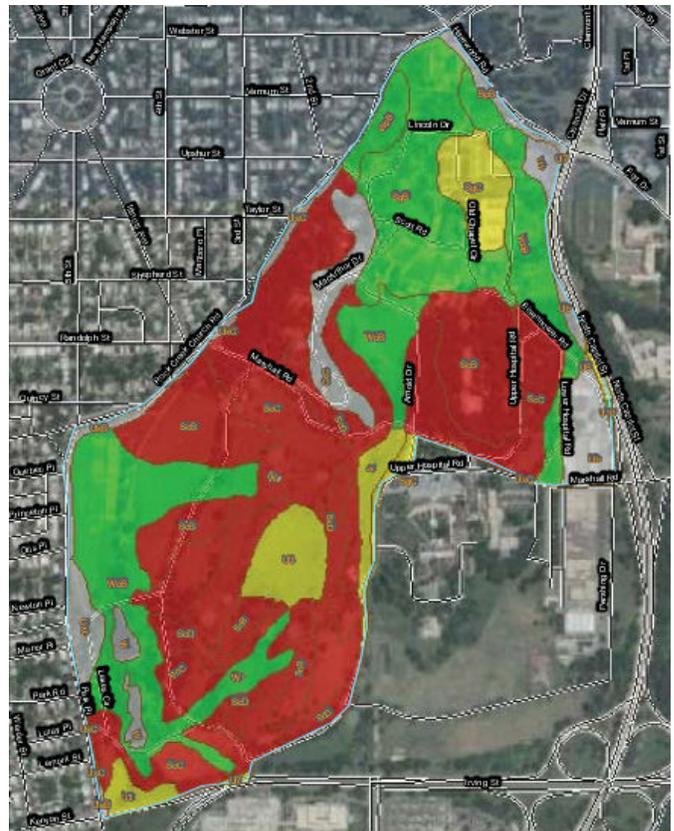
The “very limited” soils are mostly steeper Sassafras soils that have slopes that are greater than 8%. These areas have low permeability and low water holding capacity due to the steeper slopes. Very limited often means extra effort or precautions need to be taken when developing a project under problematic conditions. Very limited soils should be noted when determining the location for improvements, considering the impact of the soil on the initial and long-range maintenance cost of a project.

The green areas are not limited for growing lawns and grasses. They comprise the flatter Sassafras-Urban land complex (SgB) and all the Woodstown sandy loam soils. These soils have both slow permeability and very high water capacity and are excellent for growing lawns.

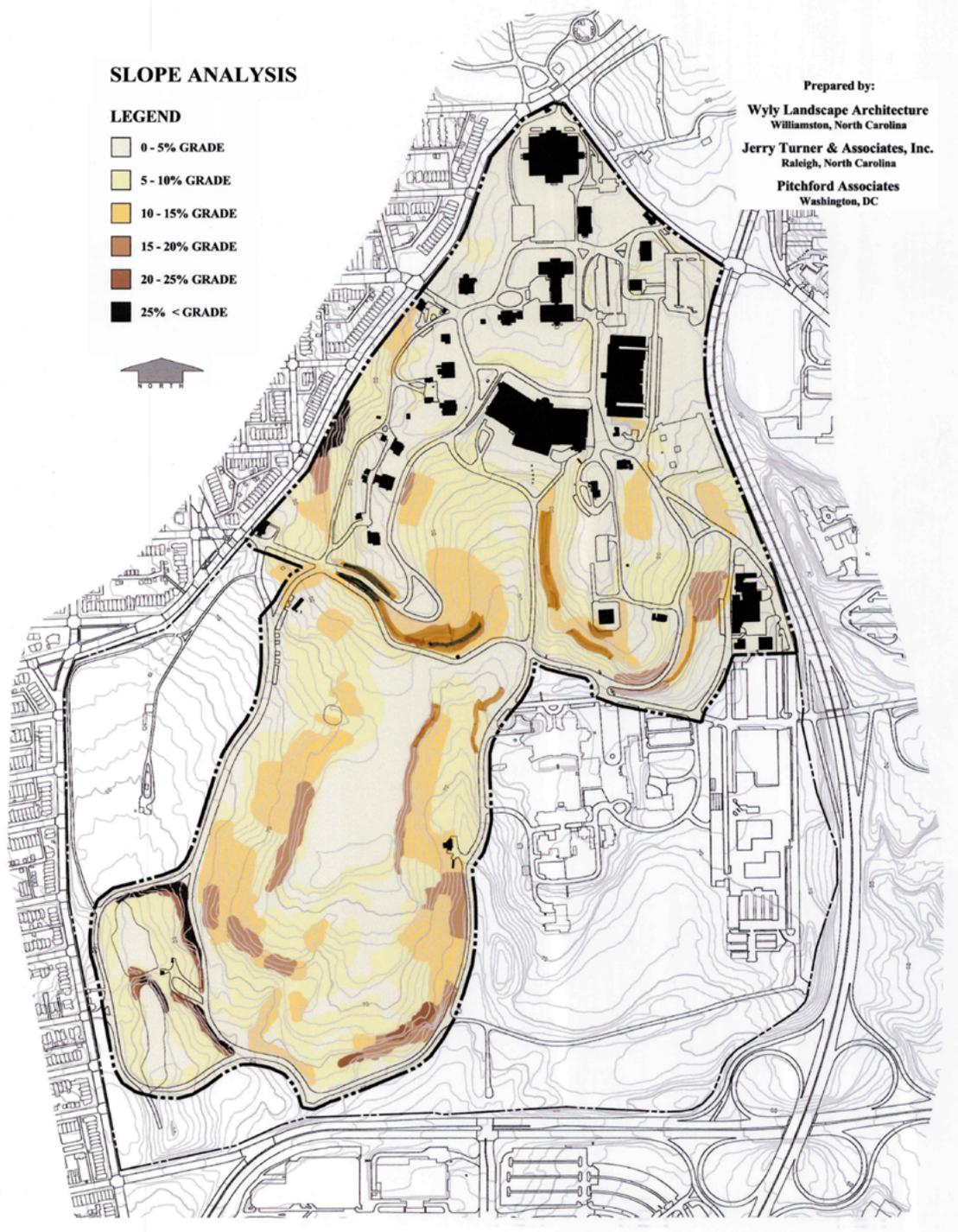
The yellow areas are somewhat limited. Each soil type has a unique problem. The U3 soils are pure sand and are most likely areas that were backfilled with sand at some time in the past. Water does not drain off them but rather drains straight down. Thus daily watering is necessary to maintain any lawn over these areas. The Luka strip of soil will flood periodically, damaging the turf on the Golf Course. The Sassafras Urban Land complex, 8-15% slopes (SgC) is somewhat limited due to the slope.

The Croon (CxC) is not rated because it is so developed. The Quarters buildings and MacArthur Drive are located over this soil. These soils are not rated but are most likely very limited due to gravel content, slope, droughtiness, and large stone content. Several backfilled soils are also not rated along North Capitol Street and Park Drive. The total of these soils make up a very small percent of the total soils of the site.

The very limited lawn use of Chapel Woods soils reinforces that this area should remain in a wooded condition. The gravelly and erodible nature of these soils and the steeper slopes naturally conform to a non-lawn usage. The same is true for Quarters Woods and the upper slopes of the meadow below the New Scott Building. The golf course has only a small area of suitable soil for lawn. This is the main difficulty for growing consistent quality lawns in this area but does not mean that it cannot be done. It does mean that extreme measures will need to be employed to develop a high quality golf fairway. These measures will include an irrigation system and a six-inch layer of quality soil in which to grow the high quality golf fairway desired.



## SLOPE ANALYSIS

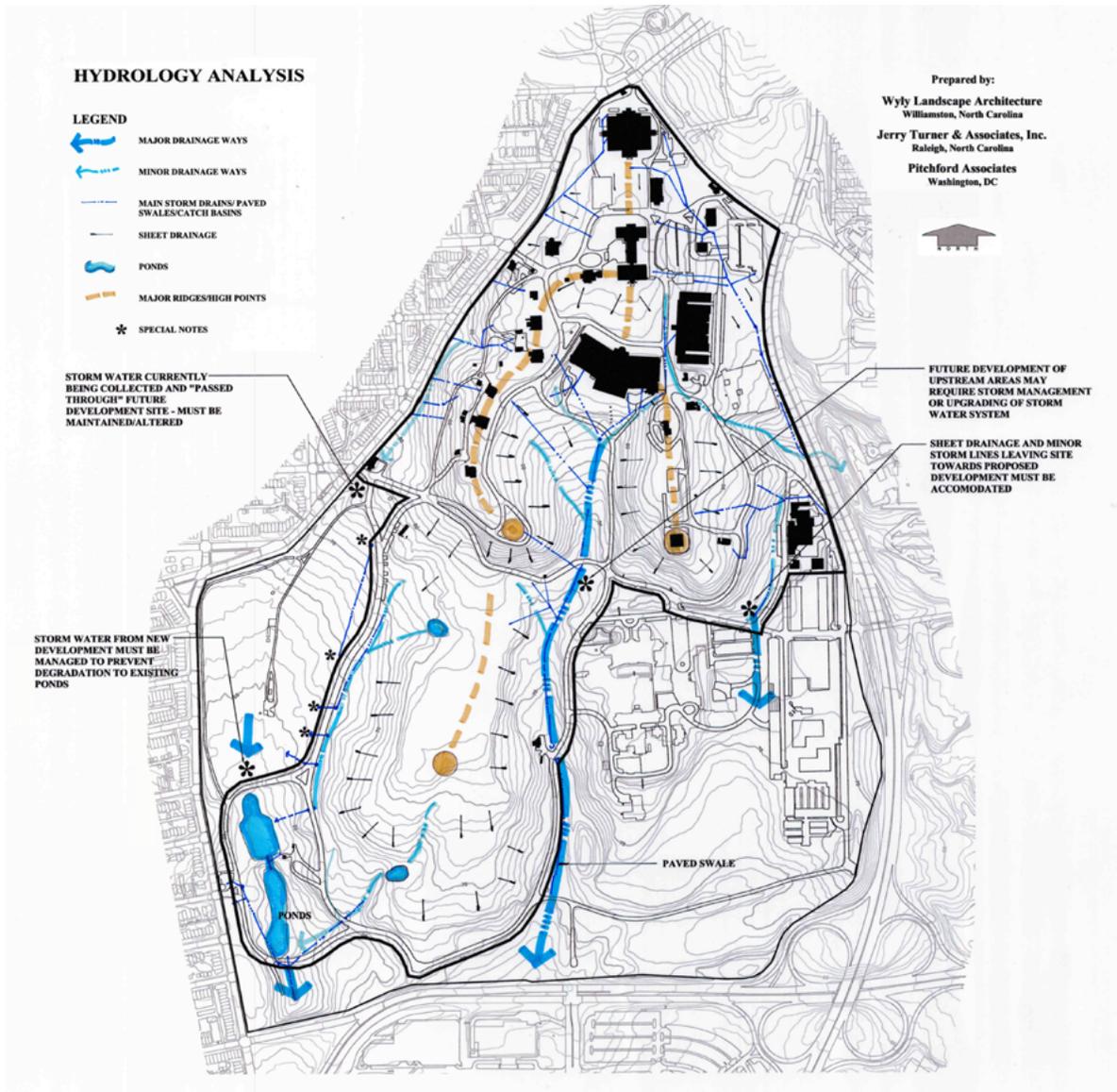


*Slope Analysis from 'Site Analysis' 2007*

This map illustrates where the flattest and steepest slopes are located on campus. These are potentially the highest areas of erosion and the most difficult to stabilize. At the same time the undulating form of the landscape is what gives AFRH-W its natural character and beauty.

The ridge lines played a key role in the siting and orientation of the early buildings on the grounds of the Home. The center ridge line through the campus connects the Grant Building, the Sherman Building, Rose Chapel, and the historic hospital complex (Barnes Building and Forwood Building). The arrangement of the Officers' Quarters and path of MacArthur Drive also follow a curvilinear ridge line that emphasizes the existing topography of the campus.

# HYDROLOGY



Hydrology Analysis from 'Site Analysis' 2007

Storm water, irrigation water and excess water from other sources moves through the campus either in a piped system or an above ground flow. Some of the piped systems are dedicated to storm water, while some of the very old pipes are dual use sewer and storm water. AFRH is in the process of separating the dual use systems.

The above ground systems typically sheet flow from the ridge lines to a swale. The swale carries the water to a pipe or a collection point such as the lakes. The lakes collect roughly 35% of the entire site's storm water. The New Scott Building design specifies the creation of a small storm water pond at the base of the hill on the south side to collect its storm water. A careful study of this map shows the potential locations for additional ponds for a Storm water Master Plan.

Most of the swales have been lined with concrete due to scouring in years past. In the two sandy areas discussed in the soils analysis, 100% of the rain is infiltrated into the soil for most rain events. The largest sand area is on top of the golf course over the city reservoir. The area of slowest water movement is Rose Chapel Woods west. Even though the slopes are some of the steeper ones on the site, the dense leaf cover often absorbs all the water from a light rain and significantly slows the water from a moderate rain. The other wooded areas behave somewhat similarly.

# PROJECTS

The MLP is a project-based plan for landscape improvements at AFRH-W. The MLP organizes projects by Project Units and presents each project at a conceptual level using the following information:

Context	A brief context statement, including: information gathered from residents, staff, and consultants during planning sessions for the MLP; existing site conditions; programmatic needs and objectives; relevant history (as provided in the historic context and historic resource inventory of the AFRH-W Historic Preservation Plan); and/or any other information that establishes the purpose or need for the project.
Scope	Concept-level scopes to assist AFRH in capital planning and development of solicitation packages for design professionals and contractors.
Guidelines	Project-specific guidelines to be used by AFRH and design professionals in coordination with the site-wide design guidelines for the development of designs and specifications for individual projects. The guidelines are based on the following considerations: <ul style="list-style-type: none"> <li>• Campus development (consistent with the AFRH-W Master Plan);</li> <li>• Historic Preservation (consistent with the AFRH-W Historic Preservation Plan);</li> <li>• Sustainability (consistent with the Executive Orders 13514 and 13423);</li> <li>• Accessibility (consistent with relevant Americans with Disabilities Act standards and guidelines);</li> <li>• Aging in Place and Person-centered Care (consistent with principles defined by AFRH); and</li> <li>• Landscape Maintenance (consistent with the AFRH Landscape Management Plan, as summarized in the Site Analysis section of the MLP).</li> </ul>
Cross-References	A sidebar stating the Sub-zone and Character Area that is relevant to each project to facilitate easy cross-reference with guidelines provided by the AFRH-W Master Plan and AFRH-W Historic Preservation Plan (HPP), respectively.

The following cross-reference terms are used consistently throughout the project descriptions:

Character Area	The AFRH-W HPP identifies fourteen (14) Character Areas at AFRH-W. As defined by the HPP, Character Areas represent discernible trends and patterns in the property's character-defining features. The boundaries of Character Areas are defined based on spatial organization, historical development, and terrain features, as well as existing conditions of the built and natural landscape elements. The HPP provides context information and historic resources data for each Character Area and should be referenced during the development of MLP project designs and specifications as needed. See Appendix J for a map of the Character Areas.
Zones and Sub-zones	The Master Plan (MP) establishes two planning zones at AFRH-W: the AFRH Zone and Zone A. The AFRH Zone is intended for the ongoing operations of AFRH-W. Zone A is intended primarily for development and use by others. The MP also divides the AFRH Zone into (4) sub-zones that reflect land use and character. Sub-zones include: Other Areas, Chapel Woods, North-Northeast, and Golf Course. The Master Plan provides planning objectives and design guidelines for each sub-zone that should be referenced during the development of MLP project designs and specifications. See Appendix K for a map of zones and sub-zones.
Relative Level of Significance (RLS)	The HPP identifies a Relative Level of Significance (RLS) for each historic resource (buildings, objects, structures, and sites) at AFRH-W. The HPP provides treatment recommendations based on an individual resource's RLS, and these treatment recommendations should be referenced as part of the development of MLP project designs and specifications that may affect historic resources. As stated in the HPP, the RLS levels are defined as: Key, Significant, Supporting, Minor, and Non-Contributing. See Appendix H for the definition for each RLS and for treatment recommendations as provided in the HPP.

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# CAMPUS CORE PROJECT UNIT

The Campus Core Project Unit is comprised of projects intended to improve the area of AFRH-W most actively used by residents and staff. These projects will be in the context of some of the most historically significant resources on campus.



*Historic aerial view of the Home*

The agency is currently in the process of consolidating its operations in this area of the campus. In 2011, the former Scott Building (Building 80) was demolished, and a new building (new Scott Building) is being constructed in its place. Once the new facility is opened, all residents and administrative staff will be located in or in close proximity to the Campus Core. The existing Sheridan Building (Building 17) will house Assisted Living and Independent Living residents, the Sherman Building (Building 14) will house AFRH administration, and the new Scott Building will house Memory Support and Long-term Care Residents, common spaces, wellness facilities, and AFRH-W staff. The majority of the activity at AFRH-W occurs within the Campus Core, and the landscape within this project unit must accommodate the needs and abilities of all residents, staff, and visitors.

Within the Campus Core is the U.S. Soldiers' and Airmen's Home National Historic Landmark (NHL), which was designated in 1973 and is comprised of the buildings and landscape that represent the establishment of the Home and its earliest years of operation in the 1850s. The Campus Core also includes the Soldiers' Home and Lincoln Cottage National Monument, which was designated by President Bill Clinton in 2000. Although the entire AFRH-W campus is a historic district, the Campus Core holds the historic heart of the Home.



## PROJECTS

- 1 - New Scott Building Landscape
- 2 - Sherman Quadrangle
- 3 - Quarters 40 Pavilion
- 4 - Sheridan Plaza
- 5 - Stanley Chapel Outdoor Gathering Area
- 6 - Sheridan-Sherman Landscape Restoration

Landscape improvement projects in the Campus Core will accommodate the construction of the new Scott Building, protect and enhance the historic character of its buildings and landscape, enhance outdoor programming that is accessible to all AFRH residents, and improve the working environment of AFRH and AFRH-W employees.

# 1 - NEW SCOTT BUILDING LANDSCAPE

The new Scott Building at the Armed Forces Retirement Home – Washington (AFRH-W) represents a key step in the agency's long-range plan for modernization of its facilities and consolidation of its residential and healthcare operations. Slated to open in spring 2013, this new state-of-the-art facility will accommodate the changing needs and demographics of our country's retiring veterans, reflect contemporary philosophies in senior housing and healthcare, and incorporate best practices in sustainable design. The landscape design for the site will further this vision and contribute to a LEED Gold certification for new construction.



*Sketch of approved landscape design for the New Scott Building*

## Scope

AFRH will implement a landscape design for the new Scott Building that is compatible with the historic character of the Home, strengthens connections to the campus, provides a therapeutic landscape for the residents, and creates a sustainable landscape incorporating environmental and low impact development design principles. In order to maintain the views from Lincoln Cottage to the meadow and the city beyond, the site to the west of the new building will remain open, free of above-grade structures and new canopy trees. The open character of the meadow to the south is extended northward through this space to Scott Drive. To be consistent with the existing character and material palette of the historic landscape of the campus, the site design will include foundation plantings, open areas planted with uniform species of specimen trees, concrete paths and curbs, asphalt roads, and iron site furnishings. Details of the site plan will address the physical and sensory challenges of the elderly and create a home-like atmosphere for residents. The planting selection will reinforce the healing function of the gardens, using non-toxic and thornless species, as well as species that are colorful, fragrant, and attractive to birds, hummingbirds, and butterflies. Storm water treatment and storage will be provided by a rain garden meadow, located at a low point of the site, adjacent to an existing inlet. This garden, consisting of native perennials, grasses and ground cover, will provide a smooth transition to the meadow below, create a space for garden viewing and walking, and perform an important infrastructure function. These low impact design systems collect the first flush of storm water, filter pollutants through the soil and vegetation, and slowly release it to the storm system. Water and energy resources are preserved through a low maintenance, low irrigation landscape.

## Guidelines

A design for the New Scott Building Landscape was approved by AFRH, the Commission of Fine Arts (CFA), and the National Capital Planning Commission (NCPC) in 2010. Implementation of this project will follow all approved designs and specifications.

### MASTER PLAN SUB-ZONES

- Other Areas

### HPP CHARACTER AREAS

- 1947/1953 Impact

# 2 - SHERMAN QUADRANGLE



The siting of the new Scott Building (currently under construction) aligns the building’s main entrance with the entrance to the historic Sherman Building (Building 14), reinforcing the north-south axis through the campus. During design review for the New Scott Building, the National Capital Planning Commission (NCPC) and the Commission of Fine Arts (CFA) recommended alterations to the pedestrian connection between the Sherman Building and new Scott Building to reflect the alignment of the entrances. The current design of the promenade of the Sherman Quadrangle reflects a planting plan implemented by AFRH in 2007.

*Condition of Sherman Quadrangle prior to the demolition of the previous Scott Building*

## Scope

AFRH will realign the pedestrian connection between the Sherman Building and the new Scott Building to provide a straight connection between the entrances of the two buildings, improve the overall landscape conditions of the quadrangle, and further reinforce the historic north-south axis through the campus. The improvements will also ensure a smooth transition between the historic character of the NHL and the contemporary design of the new facility.

The realignment will maintain the spur path between the Sheridan Building and the north-south connection and the general character of the existing planting plan, both of which originate from a 2007-2008 landscape improvement project. A new flagpole will be installed at the center of the planted median at the intersection of the main connection and spur connection. Existing furnishings (light standards, benches, trash cans) will be retained, and any new benches will replicate the existing benches. As the promenade approaches Scott Drive to the south, bluestone pavers and bollards will tie the hardscaping of the promenade into the landscape design of the new Scott Building. Three existing trees will be removed and replaced to accommodate the realignment.

## Guidelines

AFRH will implement a design for the realignment project that was approved by CFA and NCPC in spring 2012. Implementation of this project began in 2012 and will follow the approved designs and specifications in combination with a variation of the 2007-2008 planting plan that accommodates the new alignment.

MASTER PLAN SUB-ZONES

- Other Areas

HPP CHARACTER AREAS

- Central Grounds

## 3 - QUARTERS 40 PAVILION

Quarters 40 (Building 40) is located south of the Sheridan Building (Building 17) and east of the new Scott Building (currently under construction). Quarters 40 is adjacent to the majority of activity on the campus, but the building and its site are currently underutilized. AFRH must honor the rights of both smokers and non-smokers as part of the agency's CARF accreditation, and the site of Quarters 40 would provide an outdoor space for smoking residents to gather. The Quarters 40 Pavilion will tie Quarters 40 into the programming of the Sheridan and Scott buildings, while providing a safe and comfortable environment for outdoor smoking.



*Approved design for Quarters 40 Pavilion*

### Scope

AFRH will construct an open-air wood frame pavilion adjacent to Quarters 40 and provide new hardscaping and landscaping that improves the condition and appearance of this key site on campus. The pavilion will be fitted with ceiling fans to provide air circulation in the warmer months and with a fire pit, radiant heat, and roll-down plastic side panels for use during inclement weather. The pavilion will also be fitted with new metal chairs and tables to help enhance the gathering space. New hardscaping will include a pedestrian connection from the future Sheridan Plaza (see Project 4) and a paved terrace extending from the pavilion. The terrace will be bordered by a metal railing to offer support and stability for residents using the space. Materials used for hardscaping will visually tie the Quarters 40 landscape to the landscape design of the new Scott Building. The project will also include alterations to Quarters 40 to remove an unsightly 1960s carport and a non-original addition to the building's kitchen, while restoring the east elevation of the historic building. Existing overgrown vegetation will be removed and replaced with new plantings that improve the appearance of Quarters 40 and the new pavilion.

### Guidelines

A design for the Quarters 40 Pavilion was approved by AFRH, the Commission of Fine Arts (CFA), and the National Capital Planning Commission (NCPC) in spring 2012. Implementation of this project should follow all approved designs and specifications.

#### MASTER PLAN SUB-ZONES

- Other Areas

#### HPP CHARACTER AREAS

- Chapel Woods

# 4 - SHERIDAN PLAZA



Approved design for Sheridan Plaza

The Sheridan Building will continue to function as the primary residential building for AFRH-W, while the new Scott Building will house all commons and healthcare functions. AFRH anticipates a high level of staff and resident traffic between the two buildings. Currently, the space between the two buildings is occupied by Eisenhower Drive, which is open to vehicular traffic. This condition is not ideal for a high traffic pedestrian crossing. AFRH needs to reroute vehicles along Eisenhower Drive to create a pedestrian-friendly surface connection between the two buildings.

## Scope

AFRH will close off the section of Eisenhower Drive between the Sheridan Building and the new Scott Building to create a pedestrian plaza. The design of the plaza will provide a compatible intersection of the landscapes of the new and existing buildings and a safe surface connection for pedestrians. The plaza will include a combination of concrete pavers, lawn, and planters with regularly spaced trees and ornamental grass. New bike racks, benches, and light fixtures will be installed within the space. The lawn of Quarters 40 will be extended to provide a straight edge to the east side of the plaza, and mountable curbs will be placed on the north and south ends of the plaza to accommodate fire trucks. The plaza will also accommodate a primary location for golf cart parking and charging along the east wall of the new Scott Building.

## Guidelines

A design for the Sheridan Plaza was approved by AFRH, the Commission of Fine Arts (CFA), and the National Capital Planning Commission (NCPC) in winter 2012. Implementation of this project began in 2012 and will follow all approved designs and specifications.

### MASTER PLAN SUB-ZONES

- North/Northeast

### HPP CHARACTER AREAS

- 1947/1953 Impact

# 5 - STANLEY CHAPEL OUTDOOR GATHERING AREA

The campus provides a picturesque setting for relaxing and socializing outdoors. Designating comfortable, accessible areas for outdoor gathering will encourage residents to use a wider area of the campus and will generally increase outdoor activity. Outdoor gathering areas may also increase incidental interaction among residents, staff, and visitors. Updated and improved gathering areas are consistent with the agency's values associated with CARF accreditation, including providing appropriate environmental conditions for the benefit of residents, as well as ensuring architectural and environmental accessibility on campus.



*Area east of Stanley Chapel*

## Scope

AFRH will provide new outdoor gathering areas in select locations on the campus, including the site east of Stanley Chapel (Building 20). The gathering area will be fitted with picnic tables, chairs, and/or benches.

## Guidelines

The HPP identifies the proposed site for the gathering area as being within the “Specimen Trees in Lawn” historic landscape resource, which has a Relative Level of Significance of “Significant.” As part of the philosophy of the picturesque landscape, specimen trees serve to interrupt the ground plane, providing intermittent focal points and shade. The HPP does not identify any historic views in this area, but views to and from the public street are buffered by existing trees. The Master Plan does not provide any guidance specific for this project site.

The gathering area should be accessible by a hardscape pedestrian path to accommodate users with wheelchairs, PMDs, and walkers. To ensure minimal impact to the historic landscape, the gathering area should be located close to an existing path to avoid or minimize new hardscape. All aspects of the Stanley Chapel Outdoor Gathering Area project, including new hardscape, should avoid impacting existing trees and root structures. The gathering area should employ the shade of existing specimen trees, and new plantings are discouraged so as to preserve the existing historic character of the landscape. All designs and specifications for the gathering area should be consistent with the treatment recommendations provided for Significant landscape resources in the HPP (see Appendix H) and site-wide furnishing guidelines provided in the MLP. This site will also need to meet ADA guidelines for Outdoor Accessibility in Appendix C, specifically those for Outdoor Constructed Features, Outdoor Recreation Access Routes, and Concrete, Asphalt or Board Surfaces.

### MASTER PLAN SUB-ZONES

- North/Northeast

### HPP CHARACTER AREAS

- Central Grounds

# 6 - SHERIDAN-SHERMAN LANDSCAPE RESTORATION



In 2010, AFRH placed temporary facilities in the Sherman Building, Sherman Annex, and Sherman North to accommodate the continuation of essential operations during the construction of the new Scott Building. Alterations to the landscape were required to install an enclosed, wheelchair-accessible pedestrian connection between the two buildings. Once the new Scott Building is opened, AFRH will remove the pedestrian connection and restore the site between the Sherman and Sheridan buildings back to its condition in 2010.

*Condition of Sheridan-Sherman landscape with temporary covered walkway*

## Scope

AFRH will remove the enclosure along the pathway, fill any cut areas of the site, repave parking lots and sidewalks as necessary, and restore plantings and lawn that were disturbed. AFRH will also restore the section of the historic areaway wall that was dismantled to accommodate a trenched ramp to the basement entrance of the Sherman Building.

## Guidelines

The project site is associated with the Sherman Building (Building 14), which is identified by the HPP as having a Relative Level of Significance of “Key.” No historic landscape resources are identified within the project area.

The site should be restored to its condition in 2010. Site materials should include asphalt for the vehicular roadway and parking lot and concrete for sidewalks and curb. Scoring and joint patterns in new concrete surfaces should be consistent with adjacent concrete surfaces. The areaway wall of the Sherman Building should be reconstructed consistent with the guidelines for the repair of historic masonry structures and cast iron ornamentation. The design and specifications for the reconstruction should also be consistent with the treatment recommendations associated with the Relative Level of Significance of the Sherman Building (Building 14), as provided in the HPP.

### MASTER PLAN SUB-ZONES

- Other Areas

### HPP CHARACTER AREAS

- Central Grounds
- 1947/1953 Impact

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# SHERIDAN PROJECT UNIT

Projects within this unit are generally located between the Sheridan Building to the west and the public vehicular route along North Capitol Street to the east. This landscape supports the functions within the Sheridan Building, the primary residential facility at AFRH-W.



*Sheridan Building looking west*

Although adjacent to the Sheridan Building, this area of the campus is relatively isolated from the campus core and the majority of activity on campus. The outdoor space is surrounded by parking lots to the north, west, and south, creating an island effect that deters some residents from using the amenities located there. Furthermore, the pedestrian route from the Sheridan Building to this area is complex and unappealing; residents must exit the building at the basement, pass loading docks, and cross a busy vehicular route and a row of parking. Once there, the area offers little in terms of shade or sensory stimulation. Exercise equipment that was installed here in 2007 is rarely used by residents or staff, and outdoor furniture is often left scattered. Existing furnishings are not cohesive in aesthetic or design and are not all compatible with the character of the landscape. This area is highly visible from North Capitol Street, making its appearance and upkeep important to the public perception of AFRH-W.

In contrast to the picturesque, residential character of much of the Washington campus, the Sheridan Project Unit is more formal due to its symmetry, emphasis on hardscape and planters, and presence of static displays of military memorabilia. This formality lends itself to better to programmed activities.

Projects and guidelines associated with this unit are intended to encourage resident use of existing amenities, maintain and enhance the formal character of the modern landscape, and improve views from the public road. The AFRH-W Master Plan shows this areas is slated for development by AFRH, possibly for the replacement of the aging Sheridan Building. Although the agency does not plan on embarking on this type of development in the near future, pro-

professionals developing designs for landscape improvements here should be mindful of the long-term plans for this site.



## PROJECTS

- 7 - Raised Beds and Garden Plots
- 8 - Memorabilia Rehabilitation
- 9 - Sheridan Plantings

# 7- RAISED BEDS AND GARDEN PLOTS

Gardening is an important therapeutic program for AFRH residents and promotes independent and group activity. AFRH-W currently has raised gardens at the LaGarde Building and large garden plots in a remote area on the western perimeter of campus. With the closing of LaGarde and the termination of shuttle service to areas such as the garden plots, AFRH needs to relocate the plots and beds to ensure that this important program continues. While some residents enjoy the challenge of gardening in a plot, the benefits of a raised garden are positive for residents of all levels of care and will allow residents to continue gardening activity much later in life. Providing both options in an accessible space will be consistent with the Aging in Place philosophy. This relocation also presents an opportunity to improve the appearance and programming of the area behind the Sheridan Building. Currently, this space is used only sporadically for large events, which will no longer be needed once the new Scott Building is opened. Relocating the gardening program here will ensure that this area remains activated, while improving accessibility of the gardening program for all residents. This space also offers access to water, sunlight, existing paving, and parking, which is ideal for gardening.



*AFRH Resident enjoying gardening*

## Scope

AFRH will relocate gardening activities to the north end of campus to make them more accessible to residents. The gardens will be provided in the form of both plots and raised beds. The abandoned fountain in the middle of the space will be rehabilitated if possible to add interest to the space.

## Guidelines

The site for the Raised Beds and Garden Plots is comprised of the “Sheridan Building Plaza” and “Northeast Perimeter Plantings,” both of which are non-historic landscape resources. The design of this modern landscape is an intentional response to the symmetry of the architecture of the Sheridan Building and dates from the 1960s construction of the building. The layout of the beds and plots should retain the symmetrical and formal character of the landscape. The raised beds should be located directly adjacent to the existing paving to provide accessibility for residents using wheelchairs and PMDs. The raised beds should have a minimum height of 30 inches to provide room for root growth of all plants and to eliminate much of the kneeling and bending that is required to work in plots. The specifications for the raised beds are located in Appendix B. Seats integrated onto the top of the walls would allow residents to sit while working, further expanding the range of mobility accommodated by the gardens. Some of the accessible beds should allow the knees of the wheelchair user to pull under the bed to perform more delicate tasks, such as transplanting. The new garden plots should be located around the raised beds and should be defined by borders to maintain a neat and orderly appearance. The gardens should have access to water, and the existing furniture should be arranged to support the gardening activities.

### MASTER PLAN SUB-ZONES

- North/Northeast

### HPP CHARACTER AREAS

- 1947/1953 Impact

## 8 - MEMORABILIA REHABILITATION



*AFRH resident with the F-86 Saber Jet*

The conditions of the M48 Patton Tank and the F-86 Saber Jet Airplane are deteriorating. The plane and tank are important to the celebration of the military heritage of AFRH. These static displays are also highly visible from points outside the campus, especially along North Capitol Street. The residents have requested that these static displays be rehabilitated, and keeping these resources in good condition is part of the public perception of the campus.

### Scope

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AFRH will clean and repaint the M48 Patton Tank and the F-86 Saber Jet Airplane.

### Guidelines

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The tank and plane are not historic resources but are important to the celebration of the military heritage of the campus. AFRH should retain specialty paint contractors to perform all work associated with this project.

#### MASTER PLAN SUB-ZONES

- North/Northeast

#### HPP CHARACTER AREAS

- 1947/1953 Impact

# 9 - SHERIDAN PLANTINGS

A cluster of trees provides a vegetative buffer between the Sheridan Building and North Capitol Street. These trees screen views of the busy public road and minimize noise from passing cars. The Master Plan recommends enhancement of the vegetative buffers of the campus, particularly along the eastern perimeter. Between the buffer plantings and the Sheridan Building, this open space has a sterile character and receives excessive exposure to sun, discouraging use by residents especially during warm weather. Residents have requested more flowering plantings and more color in this area. Adding trees along the walks and around seating in a pleasant arrangement will help activate and improve the character of this outdoor space.



*Existing conditions of the Sheridan Building landscape*

## Scope

AFRH will enhance the plantings along the eastern fence between the Sheridan Building and North Capitol Street and remove overgrown invasive plantings. In the area between the perimeter and the Sheridan Building, summer flowering trees will be added along the trail and around seating areas to add a sense of human scale and to selectively increase shade.

## Guidelines

The vegetative buffer along North Capitol Street is comprised of the “Northeast Perimeter Plantings,” as defined by the HPP. Although these plantings are not part of a historic landscape resource, their protection and enhancement is important to preserving the character of the campus perimeter. As recommended by the Master Plan, this vegetative buffer should be preserved and enhanced with additional plantings. Invasive plant species should be removed on a regular basis to prevent damaging overgrowth. In places where more recent development caused the removal or thinning of the buffer plantings, reforestation with similar or stronger species should supplement existing plantings and reinforce the character of the buffer zone. Emphasis should be placed on evergreens both pyramidal and upright in form. Flowering evergreen shrubs should be planted on the AFRH side of the buffer plantings for the enjoyment of the residents.

For the area between the perimeter and the Sheridan Building, new plantings that provide shade should be added to areas around paths and seating but should be avoided around the proposed garden plots and raised garden beds (See project 7). The gardening areas will require at least eight hours of sun per day. Concentrating on trees that flower in the summer will extend the blooming season of the landscape, and choosing trees such as yellow-wood, crape myrtle, and red buckeye will provide the bold colors enjoyed by seniors. Trees should be placed with consideration of their need for sun exposure.

### MASTER PLAN SUB-ZONES

- North/Northeast

### HPP CHARACTER AREAS

- 1947/1953 Impact

# MEADOW PROJECT UNIT

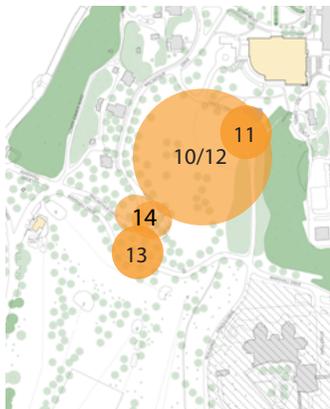
Projects within this unit are generally located in the open meadow area bounded by the campus core to the north, Chapel Woods to the east, the Officers' Quarters to the west, and the golf course to the south. This area functions as a transition between the building clusters of the campus core and the former agricultural land that once occupied southern half of the campus.



*View from the meadow*

The meadow is characterized by sloping topography and punctuated by shrubs and small trees. In addition to its role as part of the designed landscape of the Home, the meadow is also part of the Home's rich agricultural history and was used for the cultivation of ensilage for the institution's livestock. Historic documentation also indicates that this area of campus may have been the original location for golf course of the U.S. Soldiers' Home Golf and Tennis Club, which was established in 1911. In recent years, the northeast corner of the meadow was occupied by an informal softball field. The vegetation and topography of this landscape have been altered as part of the construction of the new Scott Building.

The statue of General Winfield Scott, the benefactor of the institution, was designed by artist Launt Thompson and installed on the south end of the meadow in 1873. At an elevation of 300 feet, the statue is located along the southern terrace of the plateau on which the Home's original buildings were sited. General Scott looks southward to the skyline of downtown Washington, and historic documentation indicates that this viewshed from Scott Statue was intentional and maintained as a feature of the Home's designed landscape.



## PROJECTS

- 10 - Meadow Landscape Restoration
- 11 - Softball Field Restoration
- 12 - Golf Hole Relocation
- 13 - Scott Statue Viewshed Restoration
- 14 - Scott Statue Gathering Area

Projects and guidelines associated with this area are intended to maintain the sweeping views of the landscape from the Scott Building, restore the landscape of the meadow, enhance the designed historic viewsheds from Scott Statue, and encourage recreational use.

# 10 - MEADOW LANDSCAPE RESTORATION

The historic meadow is currently occupied by the lay-down area for the construction of the new Scott Building. The existing topography and vegetation has been substantially disrupted by the project and needs to be returned to its original character as an important landscape feature of the Home.



*Southward view through meadow prior to use as construction parking*

## Scope

Once construction of the new Scott Building is complete, AFRH will return the meadow to an open landscape feature that considers the expansive views from the campus core through the picturesque landscape of the Home and to the city beyond.

## Guidelines

The HPP identifies the “Meadow” as a historic landscape feature with a Relative Level of Significance of “Significant.” First identified in an 1867 map, the meadow is a sloping grassland that originates from the purchase of the property by George W. Riggs in 1842. The large open space would have afforded views from Riggs’ house (Lincoln Cottage, Building 12) to the skyline of Washington, DC. The project site also includes “Tree Clusters, Evergreens,” another “Significant” historic resource. These clusters first appeared in maps in 1873 and served as focal points within the expansive grassland. Although the landscape of the original agricultural grasslands has not been intact for the past several decades, the Meadow retains significant aspects of its historic character as an open meadow with rolling topography, punctuated by small, informal trees and shrubs. All work should be consistent with the treatment recommendations provided for Significant landscape resources in the HPP (see Appendix H). Plantings should be placed in consideration of the re-opening of the viewshed from Lincoln Cottage, and views of the U.S. Capitol should be acknowledged as possible. The restoration should be consistent with these specific guidelines:

- All traces of pavement and stone base should be removed from the lay-down area, and all compacted sub-grade ripped. The area will be returned to the grade as shown on the original survey. Excess soil from the excavation of the new building should be removed accordingly.
- The area should be prepared for a seed bed with required amounts of lime and fertilizer as per soil tests.
- The area should be seeded with grasses to match the existing grasses in the Meadow.
- The seed bed should be watered as necessary until the grasses are established (typically after three mowings). There should be no areas bare of grass greater than twelve-inch square.

### MASTER PLAN SUB-ZONES

- Other Areas

### HPP CHARACTER AREAS

- Savannah I

# 11 - SOFTBALL FIELD RESTORATION



Softball at AFRH

AFRH used the northeast corner of the meadow as a softball field for several years. The field was modest and consisted of a backstop and a pitcher's mound. Bases and base lines were added when games were played. Residents enjoyed watching AFRH staff and outside community teams play games on the field, many of them watching from the south terrace of the Scott Building. This area is currently being used by the as a temporary lay-down area. AFRH residents have requested that the softball field be restored and be visible from the terrace of the new Scott Building. This is the only area on campus large enough and of the appropriate shape and grade for a softball diamond without extensive alterations to the landscape.

## Scope

AFRH will restore the softball field in its original location in the northeast corner of the meadow once construction on the Scott Building is completed. To bring the field back, the current gravel and asphalt paving for the temporary lay-down area will be removed as part of the Meadow Landscape Restoration (Project 10).

## Guidelines

The original softball field was a modest field and easily maintained. The restored field can be of similar form. The field restoration should follow the standard rules for shaping the grade for a softball field (see Appendix E). A backstop and pitcher's mound are needed along with portable bases and team benches. A chalk machine for painting the baselines would help define the running lines at the time of a game. The games will not be played at night, and no lighting will be necessary.

### MASTER PLAN SUB-ZONES

- Other Areas

### HPP CHARACTER AREAS

- Savannah I

# 12 - GOLF HOLE RELOCATION

The existing golf greens for holes #2 and #3 are located with the area of campus that is slated for development as part of the AFRH-W Master Plan. The Master Plan specifies relocation of the golf greens to the AFRH Zone to allow for this development. The AFRH-W Golf Course is an important component of public relations for the agency, and the relocation of the greens is important to AFRH and its residents. Documentation indicates that the area was historically used for recreation, including tennis and possibly golf. Relocating the golf holes to the meadow would allow AFRH to retain or improve the existing par of the course.



*Golf at AFRH*

## Scope

AFRH will relocate two existing golf holes (#2 and #3) to accommodate the new development planned for Zone A. The original relocation plan proposed in the AFRH-W Master Plan will be revised to relocate the holes in the meadow, which is thought to be the former location of golf holes at the Home. The relocation may include minor re-grading to accommodate proper drainage and to create the tees, fairways, and greens. The fairways will consist of gentle rolls and swales, and vegetation will be consistent with the new design. It is conceivable that a modest course could coincide with the softball field restoration in the northeast corner.

## Guidelines

The HPP identifies the “Meadow” as a historic landscape feature with a Relative Level of Significance of “Significant.” The design of the relocated golf holes will be consistent with the guidelines for the restoration of the Meadow landscape (see Project 10) and will retain the expansive southward views from the campus core. All designs and specifications for relocated golf holes should be consistent with the treatment recommendations provided for Significant landscape resources in the HPP (see Appendix H). The relocation of the golf holes should also be coordinated with the design and implementation of the restored softball field in the northeast corner of the meadow (see Project 11).

### MASTER PLAN SUB-ZONES

- Other Areas

### HPP CHARACTER AREAS

- Savannah I

# 13 - SCOTT STATUE VIEWSHED RESTORATION



Scott Statue

The statue of General Winfield Scott, considered the Home's most important benefactor, was designed by artist Launt Thompson and installed in this location in 1873. At an elevation of 300 feet, the statue is located along the southern terrace of the plateau on which the Home's original buildings were sited, and General Scott looks southward to the skyline of downtown Washington. Historic documentation indicates that this viewshed from Scott Statue was maintained as a feature of the Home's designed landscape. In recent years, the vegetation within the Scott Statue viewshed has become overgrown, and action is required to restore the viewshed, particularly to the U.S. Capitol Building and the Washington Monument.

## Scope

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AFRH will selectively prune and remove existing vegetation that obscures the viewshed of the Scott Statue.

## Guidelines

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Thinning of the landscape should be focused on the area between Scott Circle and Marshall Drive. Removal of large, mature trees south of Marshall Drive is discouraged. Trees associated with the "Scott Statue Grove" have a Relative Level of Significance of "Significant" and should not be impacted by this project.

### MASTER PLAN SUB-ZONES

- Other Areas

### HPP CHARACTER AREAS

- Scott Statue
- Savannah I

# 14 - SCOTT STATUE GATHERING AREA

The Home provides a bucolic setting for relaxing and socializing outdoors. Designating comfortable, accessible areas for outdoor gathering will encourage residents to use a wider area of the campus and will generally increase outdoor activity. Outdoor sitting areas may also increase incidental interaction among residents, staff, and visitors. Updated and improved gathering areas are consistent with the agency's values associated with CARF accreditation, including providing appropriate environmental conditions for the benefit of residents, as well as ensuring architectural and environmental accessibility on campus.



*Area around Scott Statue*

## Scope

AFRH will provide new outdoor gathering areas in select locations on the campus, including the site of Scott Statue (Building 60). The gathering area will be fitted with picnic tables and chairs and/or benches. To improve access to the gathering area and to feature Scott Statue as a destination on campus, AFRH will consider closing the adjacent section of MacArthur Drive to vehicular through-traffic and using the existing paving for golf cart parking for the gathering area.

## Guidelines

The gathering area should be located in the open area directly west of MacArthur Drive and south of Quarters 6 and/or within the "Scott Statue Grove" landscape resource (Relative Level of Significance of Significant). To ensure minimal impact to the landscape, the gathering area should be located close to existing pathways or the new pathway planned as part of the Campus History Trail (Project 32), and all aspects of the project should avoid impacting existing trees and root structures. New furnishings should not clutter open space. The gathering area should employ the shade of the existing trees, and new plantings are discouraged so as to preserve the character of the landscape. All designs and specifications for the gathering area should be consistent with the treatment recommendations provided for Significant landscape resources in the HPP (see Appendix H).

To ensure that Scott Statue Gathering Area is a comfortable, accessible, and safe destination, the gathering area should include five (5) golf cart charging stations, a water station, and a handicapped-accessible path from the existing MacArthur Drive sidewalk (see Campus History Trail, Project 32). Any road crossings required to get to the gathering area should be clearly marked. The site should comply with site-wide furnishing guidelines and be consistent with ADA guidelines for Outdoor Accessibility in Appendix C, specifically those for Outdoor Constructed Features, Outdoor Recreation Access Routes, and Concrete, Asphalt or Board Surfaces. Any golf cart parking should be limited to use of the gathering area and not used for long-term parking. Signs for the parking area should follow the site-wide design guidelines for signage.

### MASTER PLAN SUB-ZONES

- Other Areas

### HPP CHARACTER AREAS

- Scott Statue
- Central Grounds

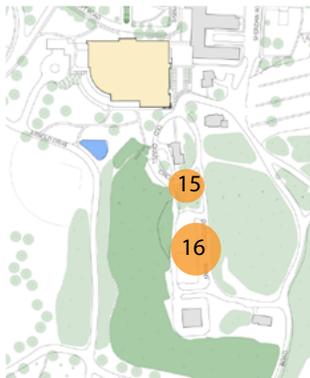
# CHAPEL WOODS PROJECT UNIT

This unit comprises the wooded area around Rose Chapel, bounded by Arnold Drive to the west, Eisenhower Drive to the east, and Upper Hospital Road to the south. Chapel Woods is one of the most precious natural landscapes at AFRH-W.



Chapel Woods has existed as a coherent woodland unit since at least the 1860s. The unit covers approximately twenty (20) acres of land that create a quite, secluded setting for Rose Chapel (Building 42). The Chapel was constructed in 1870 and is consistent with the picturesque aesthetic popular at that time. The woodlands consist of Chapel Woods West and Chapel Woods East, which have different landscape characteristics. Chapel Woods East is an open stand, with its understory entirely cleared at some point in the Home's history. The stand has a tall canopy of trees and low grasses, affording views through the woodland. Chapel Woods West is a narrow strip of deciduous forest with dense undergrowth. The species of vegetation within the forest indicates that this forest stand has existed since well before the site was developed.

This woodland provides opportunity for meditation and healing in the setting of the historic chapel and in close proximity to the Campus Core. Currently, the area behind the chapel is occupied by a construction staging area for the new Scott Building, but once construction is complete, the area will be returned for agency and resident use. AFRH would like optimize the opportunities afforded by Chapel Woods and create an extension of the therapeutic environment of the new Scott Building into the landscape.



## PROJECTS

- 15 - Meditation/Healing Gardens
- 16 - Greenhouse

Projects and Guidelines associated with this unit are intended to protect and enhance the natural woodland, create opportunities to enjoy the natural flora and fauna of the landscape, and accommodate passive and active therapeutic horticulture in close proximity to the campus core.

# 15 - MEDITATION AND HEALING GARDEN

A meditation and healing garden could provide a place to reflect, separate oneself from the activities of the Home, or have a quiet chat with a friend. Both the residents and staff need opportunities to get away to a peaceful setting, even if for only a little while.



*Example of a healing garden*

## Scope

A small, grassy area located between Rose Chapel (Building 42) and the parking lot for the Auto Hobby Shop provides an appropriate setting for a meditation and healing garden. The area is currently enclosed by small informal shrubs and trees. The area will be converted to a small tree, shrub, and perennial area with a path system and an entrance arbor. A few benches will be added, along with small sculptures and meditative sayings in stone as appropriate. Once the garden is in place, the need for mowing in this area will be eliminated, reducing maintenance by AFRH.

## Guidelines

The entrance to the meditation garden should be located on the north side of the space to provide access from the new Scott Building and Rose Chapel. The entrance should be defined by an arbor if appropriate. A small path should lead from the Rose Chapel parking lot to the garden. To ensure privacy, the path should split soon after the entrance. Visitors should be welcomed to the garden using features such as an accent plantings, a special saying in the path, and possibly a small water feature. The path should slowly wind through the garden, with different vignettes of plantings and occasional benches for stopping and meditating. Plantings should be selected to encourage small wildlife such as birds and butterflies.

### MASTER PLAN SUB-ZONES

- Chapel Woods

### HPP CHARACTER AREAS

- Chapel Woods

# 16 - GREENHOUSE



*AFRH resident enjoying gardening*

Gardening is an important therapeutic program for AFRH residents and promotes independent and group activity. The gardening program will be relocated to the area behind the Sheridan Building. Providing a greenhouse to support this program could allow residents to start some of their vegetables from seed. Residents with certain food issues could grow unusual produce such as low acid tomatoes or burpless cucumbers.

## Scope

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AFRH will provide a greenhouse as feasible to support the residents' gardening program.

## Guidelines

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The greenhouse should have access to water and electricity. The greenhouse also needs a high degree of sun access, but the most substantial sun exposure will be needed in early spring when the neighboring trees of Chapel Woods should be leafless. The greenhouse will need a fan to move air through the frame, as well as planting tables, a workbench, and a small sink. The greenhouse should be accessible. The site for the greenhouse should be limited to the open area in the center of Chapel Woods. Construction associated with the greenhouse should not result in the removal of or negative impact to any trees protected as part of the Chapel Woods East or Chapel Woods West historic landscape resources, both of which have a Relative Level of Significance of "Significant."

### MASTER PLAN SUB-ZONES

- Chapel Woods

### HPP CHARACTER AREAS

- Chapel Woods

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# GOLF COURSE PROJECT UNIT

This project unit comprises the existing Golf Course bounded by Pershing, Marshall, and Arnold drives.

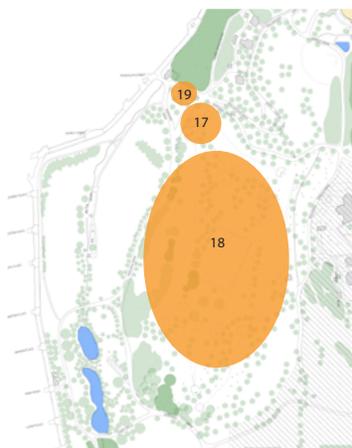


*Golf at AFRH-W*

The golf course encompasses a large, central portion of AFRH-W. The golf course was associated with Home's farm until 1951 when agricultural operations ceased. The holes of the current golf course are visible in aerials of the campus beginning in 1952. Later renovations further developed the course's landscaping, added two water hazards, and reconfigured the course. A large public water reservoir is located below ground in the center of the golf course. The current golf course does not represent a historic landscape in vegetation or topography but is significant as an open space as part of the historic spatial organization of the campus.

The AFRH-W golf course represents the Home's long history of providing recreational activities to its residents. Today, fee rates for the Golf Course are an important contributor to the Resident Non-Appropriated Funds (RNAF), and improvements to the golf course and facilities will enable the increase of user fees to better support the RNAF.

The projects and guidelines associated with this unit are intended to enhance the functionality and appeal of the golf course for residents and visitors.



## PROJECTS

- 17 - Golf Clubhouse
- 18 - Campus Irrigation
- 19 - Golf Course Gathering Area

# 17 - GOLF CLUBHOUSE

The existing Golf Clubhouse (Building 67) was constructed in 1974, and the facility and its aesthetic are outdated. The building does not provide adequate space for resident activities, accessible facilities, or modern amenities. Because of the poor condition of the clubhouse and lack of proper facilities, AFRH cannot currently justify an increase in the user fee rates for the golf course, which are an important contributor to the Resident Non-Appropriated Funds (RNAF). The AFRH-W Master Plan calls for the replacement of the clubhouse in the same location. The modernization of the golf course facilities will greatly improve the image of AFRH and the campus.



*Design of new Golf Clubhouse*

## Scope

AFRH will demolish the existing 1,000-square foot Golf Clubhouse and construct a new 3,000-square foot Golf Clubhouse in the same location on the northwest corner of the AFRH-W golf course. The new clubhouse will provide indoor space for a game room and a vending room, as well as men's and women's locker rooms. Additional outdoor seating and a golf cart parking area will be provided on the exterior of the clubhouse. The general appearance of the facility will be improved, including new landscaping and hardscaping.

## Guidelines

A design for the Golf Clubhouse project was approved by AFRH, the Commission of Fine Arts (CFA), and the National Capital Planning Commission (NCPC) in 2010. Implementation of this project should follow all approved designs and specifications.

### MASTER PLAN SUB-ZONES

- Golf Course

### HPP CHARACTER AREAS

- Golf Course

# 18 - CAMPUS IRRIGATION



AFRH-W landscape

AFRH currently uses mobile sprinklers and potable water to irrigate the golf course greens. This process requires continuous labor and incurs high operating costs. Reducing water consumption is part of the agency's goals under Executive Orders 13423 and 13514. Furthermore, the fairways are not currently watered, and the grass dies in the summer, creating an eyesore on the course. Because of the poor condition of the fairways, AFRH cannot justify an increase in the user fee rates for the golf course, which are an important contributor to the Resident Non-Appropriate Funds (RNAF). A new irrigation system could greatly improve the condition of the course.

## Scope

The AFRH will install a permanent irrigation system throughout the AFRH-W Golf Course. This system will be fed by water from the campus Lakes, and some of the runoff from the irrigation will feed back into the Lakes.

## Guidelines

Installation will require trenching in both fairways and greens and installation of oscillating sprinklers. The Agency will explore opportunities to improve the energy efficiency of the new irrigation system, such as using a water pump with a variable speed drive or economizer or employing moisture sensors. In compliance with Executive Orders 13423 and Executive Orders 13514, the Agency will take steps to monitor irrigation needs to ensure that water is not wasted. The system will require the use of 'Water Smart' spray nozzles and valves that can save up to 30% of wasted water by sharply closing heads and valves.

### MASTER PLAN SUB-ZONES

- All

### HPP CHARACTER AREAS

- All

# 19 - GOLF COURSE GATHERING AREA

The Home provides a picturesque setting for relaxing and socializing outdoors. Designating comfortable, accessible areas for outdoor gathering will encourage residents to use a wider area of the campus and will generally increase outdoor activity. Outdoor sitting areas may also increase incidental interaction among residents, staff, and visitors. Updated and improved gathering areas are consistent with the agency's values associated with CARF accreditation, including providing appropriate environmental conditions for the benefit of residents, as well as ensuring architectural and environmental accessibility on campus.



*Existing picnic area next to golf course*

## Scope

AFRH will improve the existing outdoor gathering area at the site across Pershing Drive from the Golf Clubhouse.

## Guidelines

The south end of “Quarters Woods” extends into this project site but is separated from the main part of the woodland by Marshall Drive. The HPP identifies Quarters Woods as a historic landscape resource with a Relative Level of Significance of “Significant.” Part of a historic brick path runs through this site, as well. To ensure minimal impact to the historic landscape, the gathering area should be located close to the existing path, and impacts on the path itself should be avoided. All aspects of the Golf Course Gathering Area project should avoid impacting existing trees and root structures. The gathering area should employ the shade of the existing trees, and new plantings are discouraged so as to preserve character of the landscape. At least 20% of the tables and grills should be accessible by paths and pads composed of concrete or asphalt. The accessible paths should come from the road and follow the flattest route possible.

All designs and specifications for the gathering area should be consistent with the treatment recommendations provided for Significant landscape resources in the HPP (see Appendix H) and site-wide furnishing guidelines. This site will need to be upgraded to meet the ADA guidelines for Outdoor Accessibility in Appendix C, specifically those for Outdoor Constructed Features, Outdoor Recreation Access Routes, and Concrete, Asphalt or Board Surfaces.

### MASTER PLAN SUB-ZONES

- Other Areas

### HPP CHARACTER AREAS

- Central Grounds

# CAMPUS PERIMETER PROJECT UNIT

This project unit comprises the campus perimeter along Rock Creek Church Road, including the perimeter fence, wall, gates, and gatehouses, as well as Quarters Woods.

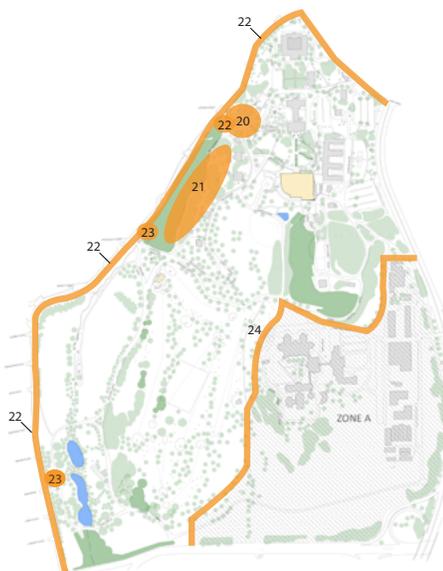


*Eagle Gate*

Although the boundaries of AFRH-W changed frequently during its early years, the West Campus Perimeter dates from 1869 and earlier and is the only intact section of the Home's historic property boundary. The fence and wall, gates, and gatehouses are significant character-defining features of the AFRH-W Historic District and some of the only historic structures visible to the public. Today, with Eagle Gate as the primary entrance, the other gates have been permanently closed and their gatehouses vacated. These areas of the campus have received little use or maintenance since their closing and are an eyesore for the adjacent neighborhoods.

AFRH also plans to change the boundaries of its secured perimeter in response to the AFRH-W Master Plan. The Master Plan divides AFRH-W into two zones: the AFRH Zone and Zone A. The AFRH Zone will remain designated primarily for the use of AFRH, while Zone A may be sold or leased in order to generate revenue for the agency. Today, AFRH residents enjoy a secure campus, and the agency intends to maintain a secured perimeter for them in the future. Therefore, AFRH will establish a new security line between the AFRH Zone and Zone A once development plans for Zone A move forward.

The projects and guidelines for this unit are intended to improve the public face of the campus, to create opportunities for interaction between AFRH and the communities of Petworth and Park View, and to provide controlled public access to the campus.



## PROJECTS

- 20 - Eagle Gate Renovations
- 21 - Woodland Rehabilitation
- 22 - Wall and Fence Rehabilitation
- 23 - Gatehouse Rehabilitation
- 24 - Zone A Fence

# 20 - EAGLE GATE RENOVATIONS

Eagle Gate is the primary point of entry into the Home and is the only historic gate at AFRH-W that remains in operation. Eagle Gate was completed in 1877 as part of the construction of the historic iron and masonry fence that defines much of the west perimeter of the campus. In the 1980s, the gate and entry were altered to accommodate three lanes of vehicular traffic, and a small guard shack was constructed for security. The existing configuration of the entrance requires security personnel to cross lanes of traffic to approach the drivers' side of existing and entering cars. Because staff and visitor lanes are combined, the traffic flow through the gate is inefficient. Pedestrians must cross lanes of traffic to access buildings on the north side of campus, including the Lincoln Cottage visitor's center.



*Approved design for the Eagle Gate renovation*

## Scope

The existing three vehicular traffic lanes will be reconfigured and widened to accommodate a central location for a new guardhouse. The reconfiguration will provide separate entrance lanes for staff and visitors, improving traffic flow especially during peak hours. A new sidewalk will be constructed on the north side of the entrance to eliminate the need for pedestrians to cross the vehicular lane to access the visitor's center for the Lincoln Cottage. Vehicular and pedestrian traffic control devices will be installed, including control arms at entrance and exit lanes, CAC readers at all access points, and an ADA-compliant swing gate at both the north and south sidewalks. Landscape improvements will include pavers and a planted median around the new guardhouse to improve the appearance of the entrance. Existing plantings and sections of non-historic fence will be relocated and/or replaced to accommodate the reconfiguration.

## Guidelines

A design for the Eagle Gate Renovation was approved by AFRH, the Commission of Fine Arts (CFA), and the National Capital Planning Commission (NCP) in fall 2010. Implementation of this project began in 2012 and will follow all approved designs and specifications.

### MASTER PLAN SUB-ZONES

- Other Areas

### HPP CHARACTER AREAS

- Central Grounds
- Fence/Entry/Perimeter

# 21 - WOODLAND REHABILITATION



View of Quarters 3 through Quarters Woods after clearing of understory

Quarters Woods comprises the woodland between the Officers' Quarters and Rock Creek Church Road. This woodland predates the establishment of the Home and has historically provided a private setting for the Officers' Quarters to the east. Although the woodland is a natural visual buffer, its understory was overgrown and was an eyesore for the community. AFRH has begun a rehabilitation effort for Quarters Woods that will improve its appearance and make it a usable area for residents and visitors.

## Scope

AFRH has started to clear the overgrown understory and debris of Quarters Woods. The project will improve the appearance of the campus from the public road. Once the understory is cleared, a new pedestrian path will be installed to accommodate residents, staff, and visitors who want to walk through the natural setting of the woodland. The new pedestrian path will be part of a larger perimeter path around the campus (see Project 37).

## Guidelines

The HPP identifies "Quarters Woods" as a historic landscape resource with a Relative Level of Significance of "Significant." All work associated with this project should ensure protection of existing trees and root structures. The privacy function of the woodland should be retained to the extent possible. All designs and specifications should be consistent with the treatment recommendations provided for Significant landscape resources in the HPP (see Appendix H). Much of the understory has already been cleared. Additional rehabilitation work should follow these guidelines:

- Uniformly spread any chipped material to a thickness no greater than three inches.
- Apply 10-10-10 or 8-8-8 fertilizer over the freshly ground material soon after chipping to replace the nitrogen used up during the composting of the fresh chips.
- Let the leaf litter accumulate in the fall.
- Begin a replacement planting scheme of young replacement trees within the next two years.

The new pedestrian trail should not be paved and should be implemented using gravel, dirt, or other permeable surface materials.

### MASTER PLAN SUB-ZONES

- Other Areas

### HPP CHARACTER AREAS

- Central Grounds

## 22 - WALL AND FENCE REHABILITATION

The Perimeter Wall and Fence dates to the 1870s and is a significant resource to the AFRH-W Historic District. The iron fence has not benefited from regular maintenance, and its condition has been exacerbated by the application of razor wire and chain link on top of the fence. Over the last few years, the structure has also been affected by several vehicular collisions. The brick columns of the fence are in poor condition and show signs of structural deterioration or failure. The rehabilitation of the resource is important to minimizing further damage and more costly repairs in the future. The fence and wall is also one of the only historic resources at AFRH-W that is widely visible to the public, and the repair of the fence and wall is important to improving the public image of the campus. Local community groups and neighboring citizens have expressed concern over the condition of the structure and strong interest in its rehabilitation. Furthermore, ensuring perimeter security addresses AFRH's requirements for its CARF accreditation.



*Historic wall and fence along the western perimeter*

### Scope

AFRH will rehabilitate the historic masonry and iron fence and wall that runs along the west and north perimeter of the campus. Razor wire and other appurtenances that have been applied to the top of the fence will be removed. If necessary and appropriate, a new secondary security system may be designed and installed.

### Guidelines

The HPP identifies the "Fence, Iron and Masonry" as having a Relative Level of Significance of "Significant." The designs and specifications for its rehabilitation should be consistent with the treatment recommendations for "Significant" structures. A conditions assessment of the fence and wall was completed in November 2010 and included recommendations for repair. The brick columns will be repaired, with some reconstruction as necessary. All brick columns will be repointed and repainted. The stone components of the fence, including the knee wall and coping, will be repaired as necessary with select repointing of the wall. The fence will be sanded and painted, with possible replacement of missing components as necessary.

#### MASTER PLAN SUB-ZONES

- Other Areas
- North/Northeast

#### HPP CHARACTER AREAS

- Fence /Entry/Perimeter

# 23 - GATEHOUSE REHABILITATION



*Historic image of Eagle Gatehouse*

The Home has several historic entrances that line its western perimeter. Authorized in May 1859, the Home constructed Randolph Street Gate and its gatehouse (Building 90), which was then the main entrance to the Home. In 1869, the Home constructed Park Road Gate, and an associated gatehouse (Building 89) was constructed in 1877. Eagle Gate and its gatehouse (Building 9) were constructed in the 1870s and are associated with the construction of the historic masonry and iron fence that still lines much of the Home’s perimeter. Over time, all of the gates at AFRH were closed except Eagle Gate, which is now the primary entrance to the Home. Today, both Eagle Gatehouse and Park Road Gatehouse sit vacant, and the Home leases Randolph Street Gatehouse as a residence. Along with the historic masonry

and iron wall and fence, the gatehouses at AFRH are the most visible historic structures from outside the property, and their condition is important to the public perception of the Home. As gates are opened at AFRH, these buildings will be important to creating a welcoming environment for visitors to the property.

## Scope

AFRH may rehabilitate its historic gatehouses to support the increased utilization of the Home’s property and the possible opening of some of its gates for public access. Rehabilitation efforts should focus on accommodating a new use, while maintaining the historic character of these important resources. AFRH envisions using Eagle Gatehouse as a coffee shop to provide an opportunity for interaction between the Home’s residents and the community. Randolph Street Gatehouse and Park Road Gatehouse could be used as comfort stations, visitor’s centers, community spaces, or other functions that support community access at the Home.

## Guidelines

All three gatehouses have a Relative Level of Significance of “Significant,” as stated in the HPP. The design and specifications for the rehabilitation of these buildings should be consistent with the treatment recommendations associated with their Relative Level of Significance and the Secretary of the Interior’s Standards for Rehabilitation and associated guidelines. Major alterations or additions to the exterior of the buildings are discouraged to preserve the historic appearance of the buildings from the public road; as possible, rehabilitation scopes are encouraged to include removal of additions that are not compatible with the character of the historic buildings and reversing major exterior alterations to restore the historic appearance of the gatehouses. Gatehouses should be accessible, anticipating use by both the public and AFRH residents and staff. Measures that increase the energy efficiency of the buildings while preserving the historic character are encouraged.

### MASTER PLAN SUB-ZONES

- Other Areas

### HPP CHARACTER AREAS

- Fence /Entry/Perimeter
- Central Grounds

# 24 - ZONE A FENCE

AFRH residents enjoy a secure campus, and the agency intends to maintain a secured perimeter for them in the future. Toward that end, the Master Plan includes a new security line that will be established between the AFRH Zone and Zone A. In establishing the new perimeter, AFRH took into consideration the location of a new fence, the ease of access through the fence for residents and maintenance staff, and the design of the fence, including its impenetrability, aesthetics, and compatibility with the historic character of the campus.



Potential development in Zone A at AFRH-W

## Scope

AFRH or a third-party developer will install a fence to secure all areas that remain as the core campus of AFRH-W, with one secured gate and other points where residents can use swipe cards to go to and from the campus to Zone A.

## Guidelines

The Master Plan delineates a fence line and provides specific design guidelines for the new Zone A fence. The fence should not cut through any of the distinct Character Areas defined by the HPP. The fence should not be penetrable except at designated access points and should be high enough to deter entry, with the height at any particular location depending on the topography. The design of the fence should not inhibit views or become a visual barrier; people shall be able to see through and/or over the fence. The fence and its access points should be in keeping with the historic examples extant on the property and not significantly detract from the historic character of the surrounding area. A contemporary, visually subtle design may be used if it is compatible with the historic character of the campus.

### MASTER PLAN SUB-ZONES

- Golf Course
- Other Areas

### HPP CHARACTER AREAS

- Fence /Entry/Perimeter
- 1947/1953 Impact
- Hospital Complex
- Chapel Woods
- Golf Course

# COMMUNITY ACCESS PROJECT UNIT

This unit focuses on the southwest corner of the campus where AFRH intends to accommodate limited public access and use of its grounds. These projects will help AFRH toward reaching one of its strategic goals: to expand its circle of influence outside the physical boundaries of the Home and engage external stakeholders.



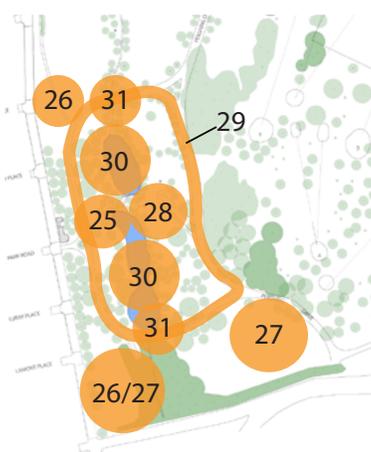
*Community members enjoying the Home's grounds, July 2012*

Starting in 1869, the Home began to make landscape improvements throughout the grounds to create a park-like setting for enjoyment by both residents and visitors. Many of these improvements, such as the Lakes, were concentrated in what is now the southwest corner of the campus. For almost a century, the Home allowed public use of this area for activities such as carriage rides, picnics, iceskating, and strolling. Since the campus gates were permanently closed to the public in the 1950s, AFRH residents have continued to use the grounds for recreation; but the the conditions of more remote areas of campus have declined as the Home's operations become increasingly concentrated.

AFRH is considering restoring limited public access to realize the potential of the campus as an amenity to the public and to provide opportunities to engage the community in the activities and mission of the Home. AFRH intends to focus community uses to the Lakes and surrounding areas in hopes of activating and improving the conditions of the southwest corner of the campus. Although AFRH intends to rehabilitate the Lakes as part of the AFRH-W Capital Improvement Plan, the agency hopes to partner with community groups to implement other landscape improvements that are

intended to accommodate public access and community activities. AFRH will use this project unit to ensure that community-implemented improvements are consistent with standards and guidelines that are relevant to the Home and all federal properties.

Projects and guidelines for this project unit will guide AFRH and community partners in making this area of campus more appealing, safe, and secure.



## PROJECTS

- 25 - Community Gardens
- 26 - Picnic Areas
- 27 - Dog Park
- 28 - Lakes Gathering Area
- 29 - Lakes Fence
- 30 - Lakes Rehabilitation
- 31 - Bridge Rehabilitation

# 25 - COMMUNITY GARDENS

The open space between the driving range and the western perimeter of the campus is composed of nine acres of what used to be the Home's agricultural land. As early as the 1860s, this area of campus is depicted in maps as agricultural fields for alfalfa and other crops for the Home's dairy herd. When agricultural functions ceased at the Home in the 1950s, this land was converted to garden plots for use by residents and staff. The garden functions were reduced in the late twentieth century when the driving range took over the eastern half of the alfalfa fields, but a handful of garden plots have remained in use by the Home's residents. As part of the consolidation of operations in the Campus Core, AFRH is providing new gardens in the vicinity of the Sheridan Building to make this important therapeutic activity more accessible to residents of all levels of care (see Project 7). AFRH may open the existing garden plots on the western perimeter for limited public access and use.



*Existing garden plots at AFRH-W*

## Scope

Because the existing garden plots will no longer be reserved for residents, AFRH plans to remove the existing garden storage and to terminate maintenance, upkeep, and supply of the gardens. The existing garden plots will be allowed to return to natural fields unless AFRH decides to incorporate the plots into the program of public activities supported in the southwest corner of the campus. If community members are permitted to use the garden plots, AFRH is encouraging programs that provide opportunities for community members and residents to partner in gardening activities.

## Guidelines

If AFRH permits public use of the garden plots, community members would be responsible for providing their own gardening equipment and supplies. Overgrown plots would require minor re-grading to remove uneven terrain and improve safety. The community would be responsible for upkeep of the plots and surrounding area. Because of the high level of visibility of this area of campus and importance of the open space to the historic spatial organization of the campus, AFRH will not permit new permanent structures in the vicinity of the garden plots. Proposals for furnishings or other objects to be kept on site would require prior approval by AFRH but will be discouraged. Consistent with the agency's intention to limit public access to daylight hours, the gardens would remain unlit at night. AFRH would not provide water hook-ups for the gardens, but low profile rain collection vessels may be permitted with prior approval from AFRH.

### MASTER PLAN SUB-ZONES

- Other Areas

### HPP CHARACTER AREAS

- Garden Plot

## 26 - PICNIC AREAS



*Example of a picnic area*

For much of the Home's history, the campus was open to the public for activities such as picnicking. Accommodating new picnic areas would reactivate the southwest corner of the campus and allow the public to once again enjoy the picturesque landscape of the Home.

### Scope

AFRH is willing to work with the community to create designated picnic areas in the southwest area of the campus. Picnicking should be focused in the area south of the Lakes, but smaller picnic areas may be accommodated elsewhere if they do not negatively impact the historic landscape.

### Guidelines

AFRH must ensure that all such improvements are consistent with the standards and guidelines that are relevant to the Home and all federal properties, including the most current ADA guidelines for picnic facilities and access to those facilities (Appendix C) and the site-wide guidelines for furnishings provided in the MLP. AFRH will not maintain the picnic areas and will not provide trash receptacles unless the community commits to their maintenance. Without an established trash plan, AFRH will maintain a strict "Leave No Trace" policy. AFRH does not intend for these areas to be used after dark, so additional lighting is not necessary. New plantings are discouraged in picnic areas around the lakes or in the alfalfa fields so that the natural character of these historic landscape resources is maintained. New furnishings (picnic tables, grills, etc.) will be configured and maintained in an orderly manner to ensure that the impact on the character of the area is minimized. Permanent shade structures are discouraged and would only be considered in the area south of the Lakes.

#### MASTER PLAN SUB-ZONES

- Other Areas

#### HPP CHARACTER AREAS

- Garden Plot
- Lakes
- 1947/1953 Impact

## 27 - DOG PARK

The southwest section of the campus contains a wetland for the outfall of the Lakes and a grassy knoll just west of the wetland. This knoll has opportunities for community amenities such as a Dog Park, a fenced area where dog owners can allow dogs to run free off their leashes. This type of amenity is popular in urban areas, where room for dogs to exercise is limited.



*Example of a Dog Park*

### Scope

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AFRH is willing to work with the community to create a dog park in the southwest area of the campus, preferably in the area south of the lakes.

### Guidelines

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The fencing for the dog park must be such that even the smallest dog can not squeeze through. The entrance has a double gate, so no dog accidentally leaves without its master. If located below the lakes, additional trees could be planted for shade. Each owner is responsible for cleaning up after his or her dog, and AFRH will not provide waste receptacles. Properly labeled waste receptacles will be allowed if the community commits to their maintenance. Otherwise, AFRH will enforce a strict “Leave No Trace” policy.

#### MASTER PLAN SUB-ZONES

- Other Areas

#### HPP CHARACTER AREAS

- 1947/1953 Impact

# 28 - LAKES GATHERING AREA



Existing accommodations at the Lakes

The Home provides a natural setting for relaxing and socializing outdoors. Designating comfortable, accessible areas for outdoor gathering will encourage AFRH residents to use a wider area of the campus and will increase outdoor activity. Outdoor gathering areas may also increase incidental interaction among residents, staff, and visitors. Updated and improved gathering areas are consistent with the agency's values associated with CARF accreditation, including providing appropriate environmental conditions for the benefit of residents, as well as ensuring architectural and environmental accessibility on campus.

## Scope

AFRH will improve the existing outdoor gathering area at the Lakes and make it accessible for both residents and community members.

## Guidelines

Some existing furnishings exist around the lakes. The furnishings do not necessarily create a cohesive aesthetic and are scattered, making the area look messy. If possible, AFRH should place new furnishings that improve the appearance of the Lakes, and the furnishings should be maintained to make the area look neat and orderly. The gathering area should employ the existing pavilion and dock that have been constructed by the U.S. Coast Guard. Tables and chairs can be added to both the pavilion and the deck with trash receptacles as appropriate. The existing storage sheds should be repaired or removed. All designs and specifications for the gathering area should be consistent with the treatment recommendations provided for Significant landscape resources in the HPP (see Appendix H) and site-wide furnishing guidelines. This site will need to be upgraded to meet the ADA guidelines for Outdoor Accessibility in Appendix C, specifically those for Outdoor Constructed Features, Outdoor Recreation Access Routes, and Concrete, Asphalt or Board Surfaces.

### MASTER PLAN SUB-ZONES

- Other Areas

### HPP CHARACTER AREAS

- Lakes

## 29 - LAKES FENCE

A fence is required to limit access and ensure safety around the Lake Nina and Lake Mary Barnes. There is currently a chain link fence that is in poor condition and is not compatible with the historic picturesque character of the Lakes. Removal and replacement of the fence is important to the improvement of this area of campus and to encouraging use by residents and visitors.



*AFRH resident and community member fishing at the Lakes*

### Scope

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AFRH will remove the existing chain link fence and install a new fence that improves both safety and aesthetics.

### Guidelines

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The new fence should be between 48-inches and 54-inches in height and follow guidelines set for security fences around swimming pools (see Safety Barrier Guidelines for Home Pools, published by the U.S. Consumer Product Safety Commission). Although ensuring safety and deterring unwanted access, the fence should be attractive and compatible with the picturesque character of the Lakes. The design and specifications for a new fence should be consistent with the fencing guidelines established by the AFRH-W Master Plan, incorporating aluminum or iron pickets painted in a dark color to minimize visibility (See MLP guidelines for fencing). Masonry components are discouraged. Gates should be provided on both the east and west sides of the fence to accommodate controlled access for residents and visitors from the community.

#### MASTER PLAN SUB-ZONES

- Other Areas

#### HPP CHARACTER AREAS

- Lakes
- Garden Plot
- 1947/1953 Impact

# 30 - LAKES REHABILITATION



Historic image of the Lakes

In 1869, the Home constructed a large pond to control excess surface-water that was created by a north-south intermittent stream. The new pond was named Lake Mary Barnes in honor of Surgeon General Barnes' wife, Mary Fauntleroy Barnes. A second pond (Lake Nina) was created to the north of Lake Mary Barnes in 1870. This area of campus, collectively known as the Lakes, became a central feature of the Home's use as a public park and is significant to the historic designed landscape of AFRH-W. The area around the Lakes is also part of the historic landscape and includes a designed woodland comprised of several introduced species such as Bald Cypress and Yew. Since the Home was closed to the public in the 1950s, the Lakes have continued to be used by residents for fishing and outdoor activities.

U.S. Coast Guard volunteers assist the Home twice each year with improvement projects around the Lakes, but the use and maintenance of this area of campus is otherwise inconsistent. The Lakes have not been dredged in recent history, and their retaining walls are deteriorated and partially collapsed in several locations. The landscaping around the Lakes was historically designed to have a natural but picturesque character and is not intended to be overgrown or unsightly. Improving the condition of the Lakes landscape will beautify this area of campus, encourage activity, restore the Lakes as part of the AFRH storm water management system, and make the Lakes safer and more accessible to residents and visitors.

## Scope

AFRH will rehabilitate the Lakes, continuing the work started by U.S. Coast Guard volunteers. Both lakes will be dredged to allow for greater water depth and capacity to restore their function as storm water management features. The retaining walls will be repaired, and collapsed sections will be reconstructed. Landscaping will also be rehabilitated, with removal of overgrown plantings, pruning of trees, and other work that will improve the appearance of this area. The fountain in the center of each lake will be repaired to continue to aerate water but with use of re-circulated water rather than potable water. Once complete, the water will be restocked with fish and plants for fish shelter.

## Guidelines

Both Lake Nina and Lake Mary Barnes have a Relative Level of Significance (RLS) of "Significant," as defined by the HPP. All work associated with the rehabilitation of these resources should be consistent with the treatment recommendations associated with their RLS and the Secretary of the Interior's Standards for Rehabilitation and associated guidelines. Contributing features of the Lakes that should be protected and preserved consistent with their individual RLS include the islands, sluice, water tap, and vehicular bridges. The designed woodland around the Lakes is also historic, and removal of or damage to healthy existing trees should be avoided. The Lakes rehabilitation should also be consistent with the agency's goals for sustainability by incorporating measures to reduce use of potable water and improve storm water management on the site.

### MASTER PLAN SUB-ZONES

- Other Areas

### HPP CHARACTER AREAS

- Lakes

# 31 - BRIDGE REHABILITATION

As part of the construction of Lake Mary Barnes in 1869, the Home also constructed a sandstone bridge with decorative iron balustrade. To the south, a granite bridge constructed in 1870 marks the terminus of Lake Nina and spans the stream that runs south from the Lakes. These two bridges are important to defining the character of the Lakes landscape. The stone bridge has been altered, no longer retaining its original stone balustrade. The stone and iron bridge is intact, but both the stone structure and iron balustrade are deteriorating.



*Existing conditions of historic bridge at AFRH-W*

## Scope

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The bridges should be rehabilitated to beautify the Lakes and improve the safety of the entire area intended to be accessed by the public. Rehabilitation should consider continued vehicular use of the bridges, as well as increased pedestrian use.

## Guidelines

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The Relative Level of Significance (RLS) of the Iron and Sandstone Bridge (north) is “Significant,” while the RLS for the Granite Bridge (south) is “Supporting.” Designs and specifications for the rehabilitation of the bridges should be consistent with the treatment recommendations for their respective RLS and the Secretary of the Interior’s Standards for Rehabilitation and associated guidelines. The existing pipe rail balustrade of the Granite Bridge should be removed and replaced with a more attractive and compatible balustrade. If possible, the original granite balustrade of the Granite Bridge should be reconstructed using historic photographs.

### MASTER PLAN SUB-ZONES

- Other Areas

### HPP CHARACTER AREAS

- Lakes
- Garden Plot

# CAMPUS CIRCULATION PROJECT UNIT

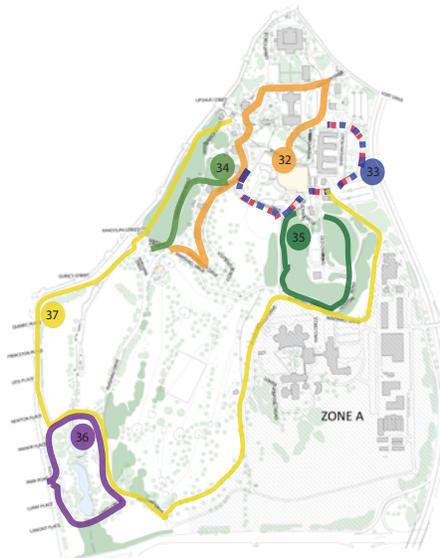
This Project Unit comprises the pedestrian and vehicular circulation system throughout the campus.



*Historic image of brick pedestrian paths at AFRH-W*

Circulation through AFRH-W will change drastically as part of the consolidation of operations in the north end of campus. With the closing of the LaGarde Building, AFRH will terminate the current shuttle service that provides transportation through the campus. The existing circulation system must be altered and supplemented to accommodate safer travel for a more diverse range of transportation modes. AFRH will encourage additional bike and pedestrian travel, and both residents and staff will rely heavily on golf carts. The pace of travel will be slower, and the volume of trips to the south campus will be less.

Projects and guidelines for this unit are intended to encourage additional pedestrian, golf cart, and PMD movement through campus by enhancing the safety of the circulation system and providing destinations throughout the landscape.

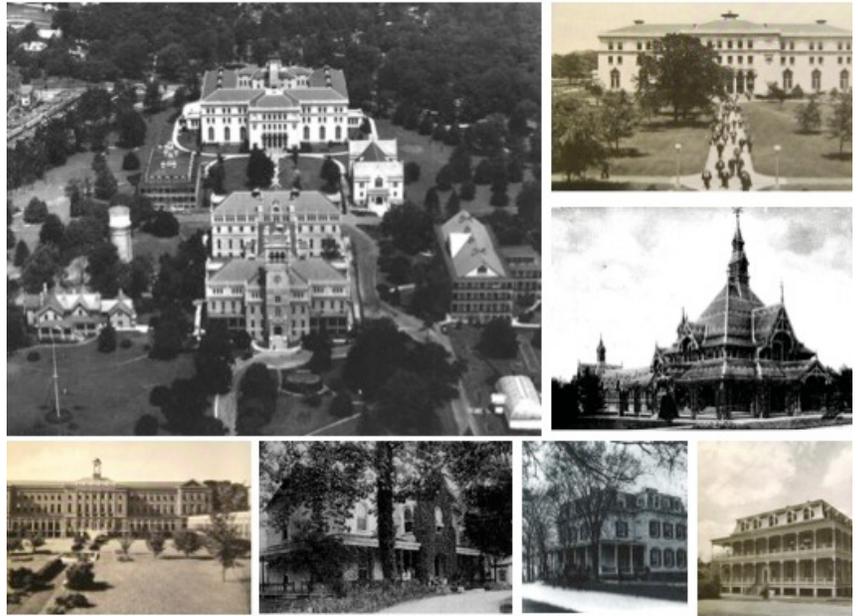


## PROJECTS

- 32 - Campus History Trail
- 33 - Military Heritage Trail
- 34 - Quarters Woods Trail
- 35 - WIMSA Trail
- 36 - Park Trail
- 37 - Perimeter Trail
- 38 - Multi-modal Circulation
- 39 - Paving and Sidewalk Repair

# 32 - CAMPUS HISTORY TRAIL

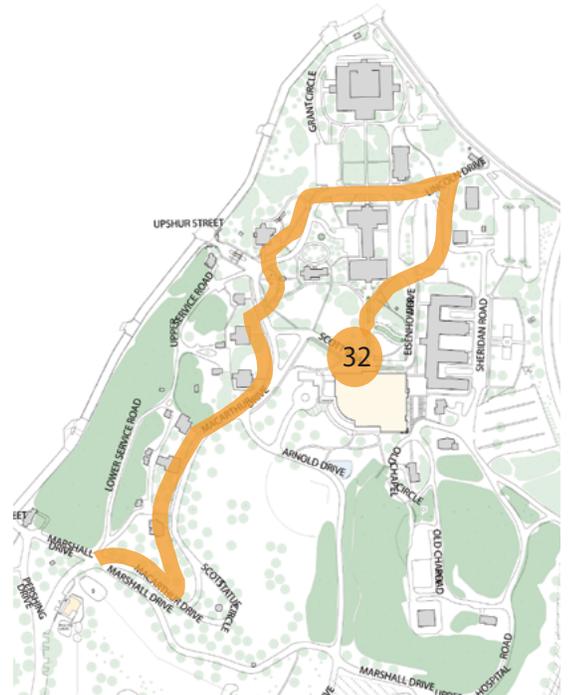
The Home was established in 1851 as the northern branch of a new Congressionally organized U.S. Military Asylum, an institution created to provide care for old and disabled veterans of the regular Army. AFRH-W is the only surviving branch of the three original branches established in the 1850s and has remained a symbol of the nation's commitment to its military veterans for over 150 years. The Home has also played an important role in the country's political and military history. Its Board of Commissioners has included such luminaries as General Winfield Scott, General William T. Sherman, General Philip Sheridan, and U.S. Surgeon General Joseph K. Barnes. In addition, four sitting U.S. presidents, including President Abraham Lincoln, are known to have resided at the Home. The entirety of AFRH-W is designated a historic district in the National Register of Historic Places, and sections of the campus have further designation as the United States Soldiers' and Airmen's Home National Historic Landmark and the President Lincoln's and Soldiers' Home National Monument. AFRH is proud of the rich history of the Home, which is embodied in its historic architecture and grounds. The agency would like to encourage residents, staff, and visitors to learn about AFRH-W history while engaging in outdoor activity.



Examples of historic images illustrating campus history at AFRH-W

## Scope

AFRH will implement a Campus History Trail to educate residents, staff, and visitors about the history of the Home and the development of the Washington campus. The trail will start at the Sherman Building, wind through the historic core of the campus, follow Quarters row down MacArthur Drive, and continue on a new spur path that starts at the MacArthur Drive sidewalk and winds through the lawn south of Quarters 6. The trail will terminate at Randolph Street Gate. In total, the trail will cover between 0.75 and 1.0 miles. The trail will be marked by interpretive signage about the history of the Home, providing information about the establishment of the institution, campus development, historic events at the Home, and building namesakes.



Potential route for Campus History Trail

Guidelines

The Campus History Trail will be in close proximity to the Campus Core and should be designed to be accessible to all residents, visitors, and staff. The trail route and its signage should accommodate users with a range of mobility issues and disabilities. The trail route should use existing sidewalks to the extent possible, and all road crossings along the trail should be striped as crosswalks. As necessary, new sections of sidewalk should be constructed to minimize road crossings or use of vehicular paths. If any length of vehicular path must be utilized to connect sections of the trail, a pedestrian path must be delineated with striping and reflecting beads. The new spur path should avoid impacting existing trees and plantings as possible and should minimize the amount of new paving while complying with ADA standards and guidelines. The entire route should be wheelchair and PMD accessible, with curb cuts at intersections and road crossings. Curb cuts should comply with ADA requirements for slope and width.

Interpretive signage should be placed at regular intervals and should be visible from one sign to the next to encourage users to progress along the trail. The signage content should be geographically based, addressing information relevant to its location on the campus. When discussing physical aspects of the campus, signage should reference both existing and demolished buildings and features to provide a comprehensive vision of the historic development of the campus. The signage design and content format should be consistent. Signage should include a combination of images and text and employ creative devices for providing educational information. Low-profile distance markers should be placed at 0.1-mile intervals and should be color-coded or otherwise marked to indicate their association with the Campus History Trail. Minimal wayfinding signage should be placed at intersections or potential connections to other trails on the campus. All signage and markers should be compatible with the historic character of the campus and follow guidelines set forth in the Master Plan, as well as ADA standards and guidelines (see Appendix C for requirements for Trails and Trail Heads).

A trail map should be developed to encourage use of the trail and to help users feel comfortable navigating the full length of the trail. A virtual trail, including electronic access to the signage content, should be made available to residents whose mobility is severely limited (see Education and Orientation Project Unit).



Examples of potential topics for the Campus History Trail (clockwise from top left): Establishment of the Home; evolution of historic buildings; building namesakes; and campus development and grounds.

MASTER PLAN SUB-ZONES

- Other Areas
- North/Northeast

HPP CHARACTER AREAS

- Central Grounds
- 1947/1953 Impact
- Scott Statue

# 33 - MILITARY HERITAGE TRAIL

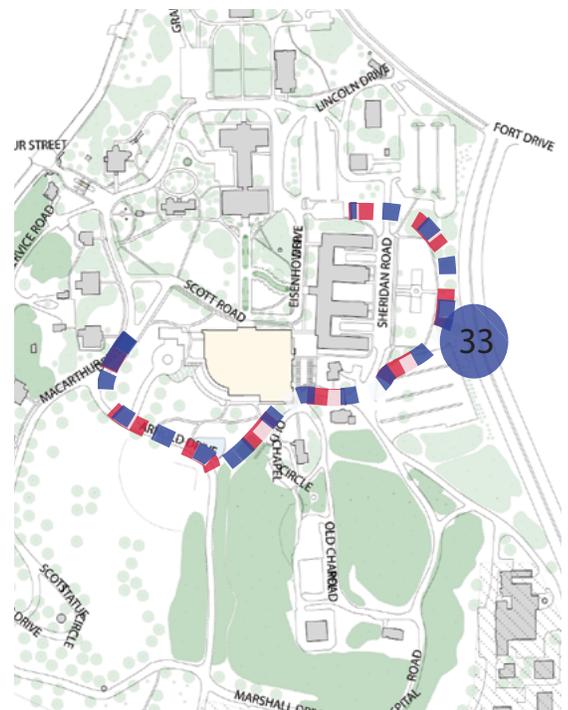
In 1851, the US Congress established the U.S. Military Asylum for the “relief and support of invalid and disabled soldiers of the Army of the United States” through an endowment collected by General Winfield Scott during his occupation of Mexico City in 1847. Almost a century later, the National Security Act of 1947 transferred the Army Air Force to the newly created United States Air Force, and the Secretary of Defense authorized the admission of Air Force personnel into the Soldiers’ Home. It was not until 1972 that the institution was renamed the U.S. Soldiers’ and Airmen’s Home to reflect the eligibility of Air Force for admittance to the Home. In 1991, Congress incorporated the U.S. Soldiers’ and Airmen’s Home and the U.S. Naval Home in Gulfport Mississippi into a single establishment called the Armed Forces Retirement Home (AFRH), and in 2001, Congress reorganized the institution once again, creating AFRH-Washington and AFRH-Gulfport and admitting certain retired and former members of the Armed Forces. By 2004, AFRH was the home for over 1,600 veterans from the Army, Navy, Coast Guard, Air Force, and Marines. Since its establishment, the Home’s population has represented theaters of war from the Mexican-American War to the conflict in Vietnam.



Seals of the five U.S. military branches

## Scope

AFRH will implement a Military Heritage Trail to educate residents, staff, and visitors about the history of each of the five branches of the United States military that are represented at AFRH-W. The trail will create a loop around the new Scott Building and Sheridan Buildings, covering approximately 0.5 miles. The trail will be marked by interpretive signage about the history of the five military branches and the military heritage at the Home, as well as distance markers. The trail will pass each of the existing static displays (anchor, propeller, tank, and jet).



Potential route for Military Heritage Trail

Guidelines

The Military Heritage Trail will be in close proximity to the Campus Core and should be designed to be accessible to all residents, visitors, and staff. The trail route and its signage should accommodate users with a range of mobility issues and disabilities. The trail route should use existing sidewalks and paths to the extent possible, and all road crossings along the trail should be striped as crosswalks. As necessary, new sections of sidewalk should be constructed to minimize road crossings or use of vehicular paths. If any length of vehicular path must be utilized to connect sections of the trail, a pedestrian path must be delineated with striping and reflecting beads. The entire route should be wheelchair and PMD accessible, with curb cuts at intersections and road crossings. Curb cuts should comply with ADA requirements for slope and width.

Interpretive signage should be placed at regular intervals and should be visible from one sign to the next to encourage users to progress along the trail. The signage design and content format should be consistent. Signage should include a combination of images and text and employ creative devices for providing educational information. Small plaques should be placed at each of the static displays to identify the object. Low-profile distance markers should be placed at 0.1-mile intervals and should be color-coded or otherwise marked to indicate their association with the Military Heritage Trail. Minimal wayfinding signage should be placed at intersections or potential connections to other trails on the campus. All signage and markers should be compatible with the historic character of the campus and follow guidelines set forth in the Master Plan, as well as ADA standards and guidelines (see Appendix C for requirements for Trails and Trail Heads).

A trail map should be developed to encourage use of the trail and to help users feel comfortable navigating the full length of the trail. A virtual trail, including electronic access to the signage content, should be made available to residents whose mobility is severely limited (see Education and Orientation Project Unit).



Civil War (ca)



World War I (ca)



1905, in front of Sherman South



Mexican War - WWI Group, ca 1920

MASTER PLAN SUB-ZONES

- Other Areas
- North/Northeast

HPP CHARACTER AREAS

- 1947/1953 Impact
- Chapel Woods
- Circulation System

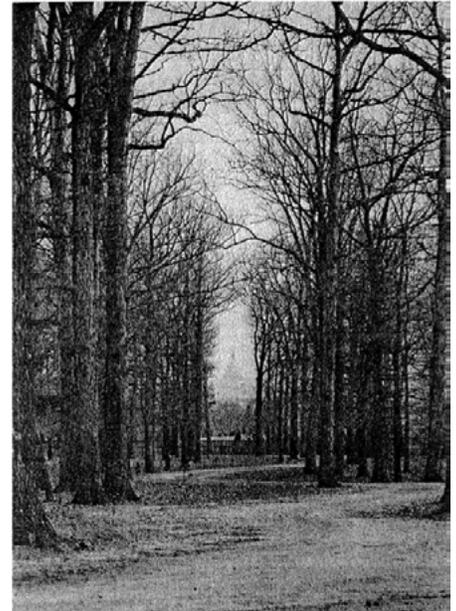
*Examples of historic photographs of veterans throughout the history of the Home*

# 34 - QUARTERS WOODS TRAIL

The Lower Service Road (also known as Mad Bear Road) is located west of the Officers' Quarters, between Eagle Gate and Marshall Drive. The road appears on maps as early as 1903 as an unpaved path. The road is currently paved and is intended to be used as a service road. Although there are signs that discourage through-traffic, many cars use this route to access the AFRH-W golf course from Eagle Gate. The road is too narrow for two-way traffic, and a second parallel road provides access to the Quarters garages to the east.

## Scope

AFRH will close the Lower Service Road to vehicles and designate it as an accessible trail. This trail is intended to provide an accessible alternative to the unpaved section of the Perimeter Trail that is proposed to go through Quarters Woods (see Projects 21 and 37). Only signage and a movable bollard is required to change the Lower Service Road into a pedestrian-only route. A new accessible spur path will be constructed between Quarters 2 and 3 to connect the Quarters Woods Trail to the sidewalk along MacArthur Drive.



Historic image of woodland trail at the Home

## Guidelines

The new spur path between the Lower Service Road and MacArthur Drive should avoid existing trees between Quarters 2 and 3, and the alignment should take the flattest route possible to ensure accessibility. The paving material should be either concrete or asphalt. The trailhead will have a sign as prescribed by the ADA guidelines, and additional directional signs will be installed at the junction of the Upper and Lower Service Roads and at the base of the trail. A removable, lockable bollard will be installed on each end of the Lower Service Road to ensure that AFRH can control vehicular access on this path. The section of the path below the south junction of Upper Service Road and Lower Service Road should be striped to provide a designated lane for pedestrians, and a cross walk should be placed across Marshall Drive to improve pedestrian access to the Golf Course Gathering Area. Distance markers should be placed at 0.1-mile intervals and should be color-coded or otherwise marked to indicate their association with the Quarters Woods Trail. All signage and markers should be compatible with the historic character of the campus and follow guidelines set forth in the Master Plan and ADA standards and guidelines (see Appendix C).

A trail map should be developed to encourage use of the trail and to help users feel comfortable navigating the full length of the trail. A virtual trail, including electronic access to the signage content, should be made available to residents whose mobility is severely limited (see Education and Orientation Project Unit).

### MASTER PLAN SUB-ZONES

- Other Areas

### HPP CHARACTER AREAS

- Central Grounds
- Circulation System



Potential route for Quarters Woods Trail



South end of trail where Mad Bear Road (left) merges with the access road (right)



Proposed spur path between Quarters 2 and 3 to connect Quarters Woods trail to MacArthur Drive sidewalk



Lockable bollards for traffic control

# 35 - WIMSA TRAIL

The WIMSA trail is dedicated to Women in Military Service to America. The existing paved trail is located in Chapel Woods West, parallel to Arnold Drive. This trail has provided a pedestrian connection between the upper campus and the lower campus buildings since the nineteenth century. Today, sections of the existing trail have deteriorated due to erosion, which is typical of the gravelly exposed soils and the steep slopes. Previous repairs are failing.

With the leasing of the lower campus buildings as part of the Zone A development, the end destination of the trail at the LaGarde Building is no longer justified. It is now logical to loop the trail through to the east side of the woods and back to the Campus Core.



Existing WIMSA Trail

## Scope

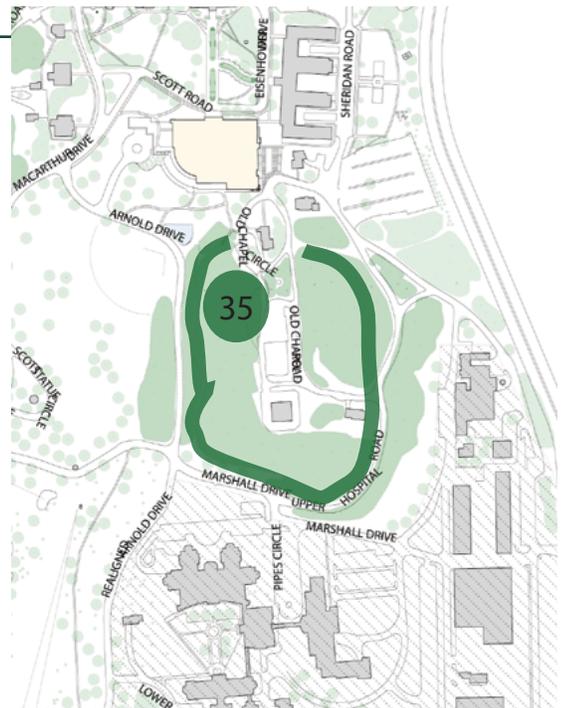
The existing trail should be rehabilitated, and a new leg of the trail should be constructed to create a loop. The new section of trail will go through the Open Stand Woodland of Chapel Woods East. The underbrush has historically been cleared out of this area, aiding in the selection of a trail route that has a gentler slope.

## Guidelines

Because there will be a new section of trail, it is important to apply the full ADA standards and guidelines for trails to this section. For the existing section of the trail, repairs do not fall under the ADA Guidelines for Outdoor Development Areas.

Where the existing trail currently terminates at Marshall Drive, opposite the LaGarde Building, the trail dips down and the topography is relatively flat. There may be an opportunity to bring a accessible spur from Marshall Drive to the trail to give the user an option to either to get on or off the trail mid-way. A turning space should be provided at this location to meet ADA guidelines.

Every effort should be made to wind the new trail past the existing trees, leaving room to protect tree roots. The code states that any slope greater than 12% for a run of greater than thirty feet needs a five-foot landing, but because a trail is intended for continuous forward movement, slopes greater than 5% but less than 12% get tiring even though they meet code. Thus horizontal slopes should be kept below 5% as possible. Where resting intervals are provided adjacent to the trail, a turning space is required.



Potential route for WIMSA Trail

## WIMSA TRAIL CTD.



*Proposed location for spur to connect south leg of WIMSA trail directly to Marshall Drive; currently Marshall Drive is only accessible from the WIMSA Trail by stairs*



*Termination of current WIMSA trail and proposed location for trail extension into Chapel Woods East*

ADA Guidelines require a sign at the trailhead of newly constructed or altered trails that include the following information: the length of the trail or trail segment; surface type, typical and minimum tread width; and typical and maximum running slope and cross slope. At least 20% of each type of feature within the trailhead should be accessible.

A trail map should be developed to encourage use of the trail and to help users feel comfortable navigating the full length of the trail. A virtual trail should be made available to residents whose mobility is severely limited (see Education and Orientation Project Unit).

AFRH will consider relocating the exercise equipment that is currently located behind the Sheridan Building to the new eastern leg of the trail.

### MASTER PLAN SUB-ZONES

- Other Areas
- Chapel Woods

### HPP CHARACTER AREAS

- Chapel Woods
- Circulation System

# 36 - PARK TRAIL

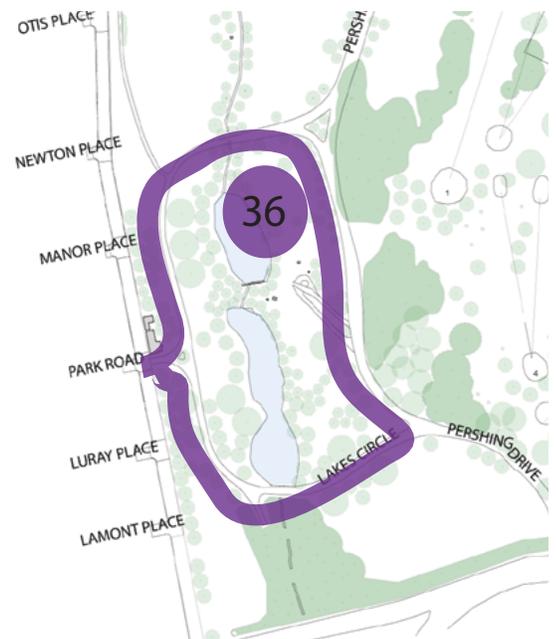
Much of the Home's expansive campus was historically used as both a public park and as a farm.

Beginning in the late 1860s, the Home embarked on an ambitious landscape design to transform the grounds into a designed landscape for enjoyment by residents and the public. George McKimmie, an accomplished landscape designer, worked with the Home's Board of Commissioners to create a landscape for the campus that expressed the design principles of the great public parks of the late nineteenth century. In the wake of the success of New York's Central Park, the Board of Commissioners devised a landscape design that incorporated many of the features that would become dominant elements in the aesthetics of nineteenth-century America. Public reference to the beauty and use of the landscape were consistently recorded in photograph books, newspaper articles, and other publications for much of the Home's history. In the late nineteenth century, the prominence of the Home's expansive designed landscape within the District of Columbia and its increasing use by the public as a park led to the inclusion of the Home in the 1902 Plan for the Improvement of the Park System of the District of Columbia. Despite the later sale and transfer of substantial parcels from the southern and eastern portions of the property, the remaining 272-acre campus retains many significant characteristics and key historical elements of the original landscape design implemented from 1868 through the 1880s. As part of restoring public use of this section of the campus, AFRH would like to educate the residents and visitors about the Home's history of landscape design and use as a public park.



Illustration from Harper's Weekly showing historic use of Home as Park

The Home's history is also defined by its agricultural activities and operation as a farm. After the purchase of the Riggs property in 1851, the Home adopted the work of the Riggs farm, retaining the farmer and employees and purchasing Riggs' farm equipment, feed crops, and livestock. For the next century, much of the Home's property was devoted to raising feed for the cattle and other livestock at its farm. Although the Board's original goal of self-sufficiency for the institution was never realized, the agricultural activities are key to understanding the history of the Home. The farm was a nationally significant resource for its tuberculosis-free herd and its use as an experimental facility to test breeding techniques and feed storage. The Home received the first United States Department of Agriculture (USDA) certificate awarded for its tuberculosis-free dairy herd. Agricultural operations ceased in the 1950s after much of the southern portion of the property was sold, but the open spaces that define much of the remaining campus are important relics of the agrarian history of the Home. AFRH would like to educate residents and the public about the importance of its former agricultural operations.



Potential route for Park Trail

Scope

AFRH will accommodate the implementation of a Park Trail by community groups or other entities. The trail will create a loop around the Lakes, covering approximately 0.5 miles, and will be marked by interpretive signage about the history of Home related to its agricultural operations and use as a public park.

Guidelines

The Park Trail will be located in the area of campus that AFRH intends to open for limited public access and will not be in close proximity to the core operations of AFRH. The trail should be designed to be accessible to visitors, as well as to residents who can be transported from the Campus Core to the Lakes. The trail route and its signage should accommodate users with a range of mobility issues and disabilities. The trail route will use existing vehicular paths, which will be restricted to pedestrian and service vehicle use only. The route should be repaved to provide a smooth surface for wheelchairs and PMDs.

Interpretive signage should be placed at regular intervals and should be visible from one sign to the next to encourage users to progress along the trail. The signage design and content format should be consistent. Signage should include a combination of images and text and employ creative devices for providing educational information. Low-profile distance markers should be placed at 0.1-mile intervals and should be color-coded to indicate their association with the Park Trail. Minimal wayfinding signage should be placed at intersections or potential connections to other trails on the campus. All signage and markers should be compatible with the historic character of the campus and follow guidelines set forth in the Master Plan, the MLP, and ADA standards and guidelines in Appendix C.

A trail map should be developed to encourage use of the trail and to help users feel comfortable navigating the full length of the trail. A virtual trail, including electronic access to the signage content, should be made available to residents whose mobility is limited (see Education and Orientation Project Unit).



Historic images illustrating the Home's use for agriculture

MASTER PLAN SUB-ZONES

- Other Areas

HPP CHARACTER AREAS

- Lakes
- Garden Plot
- Circulation System

# 37 - PERIMETER TRAIL

Some AFRH residents retain a high level of mobility and enjoy taking long walks around the inside perimeter of the Home on a regular basis.



Existing section of Perimeter Trail along the historic fence

## Scope

AFRH will provide a trail that follows the inside perimeter of the campus. The trail will start at Eagle Gate, follow the west perimeter by the Lakes, connect with Pershing Drive, and follow the line of the proposed Zone A fence.

## Guidelines

The perimeter trail is intended for users with a high or moderate level of mobility and does not need to be entirely accessible. Most of the Perimeter Trail will follow existing paths or roads, but a new section of unpaved path will be provided between Eagle Gate and Randolph Street Gate through the rehabilitated Quarters Woods (see Project 21). Low-profile distance markers should be placed at regular intervals around the entire trail and should be color-coded to indicate their association with the Perimeter Trail. Minimal wayfinding signage should be placed at intersections or potential connections to other trails on the campus. All signage and markers should be compatible with the historic character of the campus and follow AFRH-W Master Plan guidelines, the Design Guidelines of the MLP, and ADA standards and guidelines (Appendix C).

### MASTER PLAN SUB-ZONES

- Other Areas
- Chapel Woods
- Golf Course

### HPP CHARACTER AREAS

- Central Grounds
- Fence/Entry/Perimeter
- Garden Plot
- Lakes
- Golf Course
- Chapel Woods



Potential route for Perimeter Trail

# 38 - MULTI-MODAL CIRCULATION



PMD use on MacArthur Drive

The termination of shuttle service within the Washington campus creates an immediate need to better accommodate multiple modes of transportation. AFRH plans to purchase electric golf carts for residents and staff to use around campus. Residents may also use their PMDs to get to destinations previously accessed by the shuttle. As AFRH anticipates a higher volume of PMD and golf cart traffic, it also encourages more pedestrian traffic and bike use to promote outdoor activity. Cars will continue to have access throughout the campus.

Currently, many residents and visitors who walk or use PMDs, wheelchairs, or bikes travel on the street alongside vehicular traffic, which is a major safety issue for the Home. Providing designated lanes on the existing road system for both bikes and PMDs would

improve safety but is not practical for all of the roads on campus, many of which are just wide enough for two-way vehicular traffic. The site's topography and historic preservation considerations make the option of widening roads very challenging.

Another potential issue is the unintended consequences of additional electric golf carts or other electric vehicles. While slower than cars, these quiet vehicles can create a safety hazard, particularly for pedestrians with hearing problems. Any resident who was on the gunnery or pistol ranges without earplugs would have such problems. Providing routes for pedestrians that are separate from those for golf carts will be a priority.

## Scope

AFRH will implement one or more of the following potential solutions for providing a safer multi-modal transportation system:

- Re-striping roads to delineate lanes for PMDs and for bikes, maintaining two-way vehicular traffic on all roads as possible;
- Transitioning to one-way traffic on some roads, striping one lane for cars, and leaving one or two lanes for golf carts, PMDs, and bikes; and
- Requiring that all PMDs use the sidewalk and enhanced trail system and make major improvements to both systems throughout the Home. This could require the widening of existing sidewalks and trails.

### MASTER PLAN SUB-ZONES

- All

### HPP CHARACTER AREAS

- All
- Circulation System

Guidelines

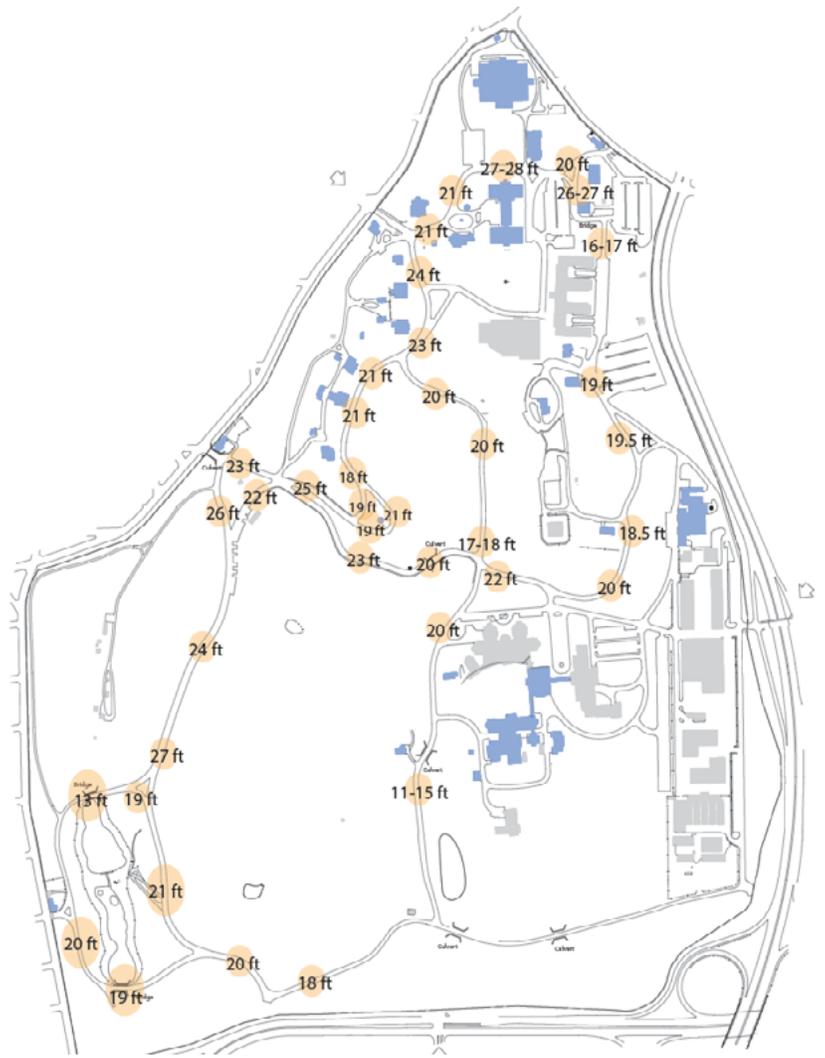
Where possible, AFRH should stripe roads to provide a separate lane for PMDs, golf carts, and bikes. Although AFRH is a closed federal campus, PMD/bike lanes should follow, as possible, the basic standards set by the Federal Highway Administration (FHWA). Striping should include a solid line at a minimum distance of four (4) feet from the curb or road edge where on-street parking is not permitted and five (5) feet from the line of on-street parking spaces. Lanes should have a smooth paved surface and be clear of physical obstructions that reduce the effective usable width of the lane, such as drain inlets or manholes. Reflecting beads should be used to further delineate the lanes at night. Paint colors and painted pedestrian/PMD/bike icons should be used to help residents and visitors navigate the new lanes. "Share the Road" signs and other appropriate signage should be installed to help increase drivers' awareness of the designated lanes. A map should be created to educate residents and visitors on safe and appropriate paths for various modes of transportation throughout the campus.

Because many of the roads are not wide enough to accommodate proper PMD/bike lanes (at least 24 feet for 2-way traffic), AFRH will take other measures to ensure safety for all modes of transportation. Signage should be installed to indicate that all roads are shared with PMDs, bikes, and golf carts. The speed limits on campus should be lowered to the speed of the golf carts, and additional speed limit signs should be installed. Most intersections should become 4-way stops and striped as such, and if necessary, a noise maker may be needed when a vehicle approaches the intersection. Trucks need to be limited to specific truck routes.

AFRH should explore the recent Complete Streets program, which is intended to create systems that accommodate all modes of transportation within a street's right of way. The District of Columbia, along with many states, has adopted the concept as part of their transportation program.

Refer to the following Guidelines within this document:

- Circulation and Streetscape
- Appendix C: ADA Guidelines for Outdoor Developed Areas for Trail requirements.
- Appendix D: DDOT Complete Streets Policy
- Also refer to typical ADA Guidelines for sidewalks



Site plan showing field measurements for road widths at various points around the campus. Measurements show that most roads are not wide enough to accommodate two-way traffic and dedicated bike/PMD lanes.

# 39 - PAVING REPAIR



MacArthur Drive

AFRH-W has an extensive system of vehicular and pedestrian circulation. The condition of some of the roads and sidewalks has deteriorated, creating unsafe conditions for people traveling through the campus. These conditions also diminish the accessibility of these routes for residents and visitors using wheelchairs or PMDs. Cracked sidewalks create tripping hazards for pedestrians, and deteriorated roads make it difficult for cars, PMDs, and golf carts to travel through campus. The deteriorated conditions of roads and sidewalks also detracts from the visual beauty of the campus.

## Scope

AFRH will repair existing roads and sidewalks. Roads with potholes, cracked paving, and other signs of deterioration will be repaired and repaved with asphalt. Cracked and overgrown sidewalks will be repaired with concrete or pavers where appropriate. Curbs between sidewalks and roads will be repaired as necessary, but no new curbs will be installed. Additional curb cuts will be provided to enhance accessibility through the campus for PMDs and wheelchairs. Ramps to sidewalks from roads may be re-graded to comply with ADA standards if the slope of the ramp is too steep. As part of the repair work, a heating system will be installed below select sidewalks and roads to minimize maintenance related to snow removal.

## Guidelines

All repair work for sidewalks and roads will be consistent with paving guidelines set forth in the Master Plan. If AFRH installs heating systems for select sidewalks and roads, designs and specifications should consider alternative energy, such as solar, to remain energy efficient and cost effective for the agency. All ramps from sidewalks to roads should meet ADA standards for 12:1 slope and a 48-inch minimum width. New curb cuts should consider accessible routes from buildings to the trail system that is outlined in the Campus Trails and Roads project unit, as well as any other landscape amenity that is proposed in the MLP. All sidewalks and roads should be striped appropriately, considering the PMD/bike lanes proposed in the Multi-Modal Circulation project (Project 38).

### MASTER PLAN SUB-ZONES

- All

### HPP CHARACTER AREAS

- All
- Circulation System

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# EDUCATION AND ORIENTATION PROJECT UNIT

These projects are intended to ensure optimal utilization of new and existing amenities throughout the campus by improving the sense of familiarity and security with the landscape. This unit also addresses opportunities for residents with little or no mobility to enjoy the landscape from the comfort and safety of the indoors.

AFRH will consider the following projects to accompany the landscape improvement projects to be implemented throughout campus:

<b>Bloom/Color Guides</b>	Residents expressed that the existing landscape needs more color and suggested several types of flowering plants, many of which already exist throughout campus. To ensure that residents fully enjoy what the Home's landscape has to offer, AFRH can develop materials that guide residents to areas of the campus based on the types of plants that are there and the time of year that they are in bloom.
<b>Trail Guides</b>	As AFRH implements trail projects across campus, a master trail map should be developed to show the entire system and direct residents and visitors to trailheads and other points of interest. Individual guides can be developed for each educational trail to accompany trail users on and off campus. These guides can also be used by AFRH as a Public Relations tool.
<b>Amenity Maps</b>	Residents expressed anxiety about venturing too far from their buildings and not being able to return safely. To ensure that residents feel comfortable moving throughout the campus, AFRH can develop maps that show the locations of water stations, PMV and golf cart charging stations, restrooms, and alert stations. These amenities should be identified in relation to the campus trail system, outdoor gathering areas, and other destinations across campus so that residents can plan trips accordingly.
<b>Virtual Trails and Guides</b>	All guides should be made available electronically online and/or on Senior TV. Interactive features would allow residents with little or no mobility to enjoy these amenities, as well. For instance, a virtual bloom/color guide could be updated periodically with photographs that allow residents who cannot leave their rooms to enjoy the colors of the landscape.
<b>Tours</b>	AFRH residents and visitors may benefit from guided tours of the campus that accompany the trail system or address other topics related to the Home's history or landscape. Residents also expressed interest in being trained to lead such tours so that they can engage with other residents and outside community members.
<b>Classes</b>	AFRH could partner with professors, specialists, or other volunteers to organize more intensive educational sessions about the Home's landscape, such as a bird watching group, a plant identification class, or an organic farming workshop.



# DESIGN GUIDELINES

The MLP provides design guidelines that apply to all landscape improvement projects at AFRH-W. As AFRH undertakes individual projects, AFRH and qualified design professionals should use these guidelines in coordination with the guidelines provided for each MLP project to develop designs and specifications. These design guidelines also apply to any landscape improvement project that is not included in the MLP.

## EXISTING AFRH-W GUIDELINE DOCUMENTS

The MLP design guidelines reference existing guideline documents that are relevant to AFRH-W, namely the AFRH-W Master Plan and the AFRH-W Historic Preservation Plan.

### *AFRH-W Master Plan*

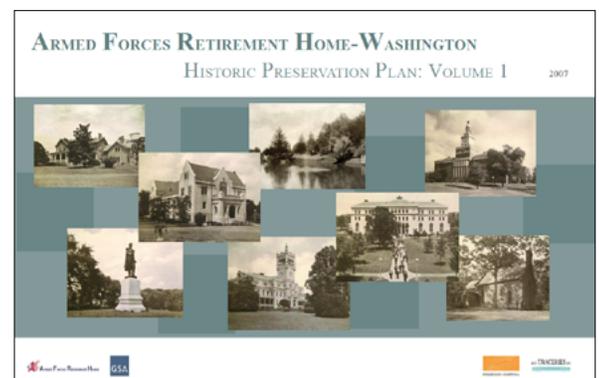
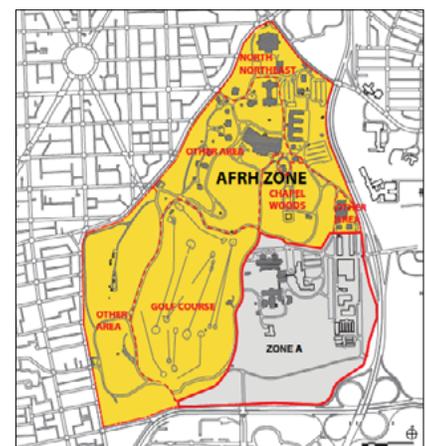
As a supplement to the existing AFRH-W Master Plan (2008), the MLP adopts and expands upon the design guidelines provided in the Master Plan. AFRH developed the Master Plan to leverage its real estate and facilitate and direct future development both by the agency and by the private sector. The National Capital Planning Commission (NCPC) approved the Master Plan in August 2008, and the Master Plan has been adopted by the Home as the guiding document for all physical development at AFRH-W.

The 2008 Master Plan includes design guidelines specific to zones and sub-zones of the campus. The design guidelines address historic resources, building design, access and security, street types, parking, bicycle paths, and signage. The Master Plan also includes general landscape guidelines that comprehensively address topography and views, open space, the site perimeter, treescape, and streetscapes, as well as smaller elements such as foundation plantings, commemorative objects, and site furnishings.

The MLP addresses only the AFRH Zone of the Master Plan, which is the area of campus intended for the ongoing operations of AFRH. The AFRH Zone is broken down into four sub-zones: North/Northeast, Chapel Woods, Golf Course, and Other Area. The MLP design guidelines provide relevant excerpts from the Master Plan guidelines and supplement those guidelines as appropriate .

### *AFRH-W Historic Preservation Plan*

The MLP also adopts the treatment recommendations provided by the AFRH-W Historic Preservation Plan (HPP). AFRH developed the HPP in 2007 to document the history of the Home, to identify and evaluate historic resources, and to provide Standard Operating Procedures (SOPs) for implementation of the AFRH-W historic preservation program. The HPP provides treatment recommendations based on the type (building/structure, object, and site) and the Relative Level of Significance (RLS) of individual resources that contribute to the significance of the AFRH-W Historic District. See Appendix H for the Treatment Recommendations Tables from Chapter 6 of the HPP. Prior to implementation of any landscape improvement project, AFRH must also follow the SOPs outlined in Chapter 6 of the HPP to ensure that the treatment recommendations have been followed appropriately. Maps and lists of historic landscape resources, built resources, and protected views are provided in the Appendix to the MLP.



## ADDITIONAL CONSIDERATIONS FOR DESIGN GUIDELINES

In addition to consistency with the Master Plan and Historic Preservation Plan, the Design Guidelines also address the following considerations:

### *Person-centered Care*

Landscape improvements should be consistent with the values that AFRH staff and residents have developed to ensure Person-centered Care at AFRH-W: choice, dignity, respect, self-determination, and purposeful living within the support structure of a caring environment.

### *Aging in Place*

The AFRH-W MLP will be consistent with the agency's Aging in Place policy, specifically the action area related to the promotion of Universal Access and Supports.

### *Accessibility*

Any landscape improvement projects undertaken on the campus should be part of the extension of the therapeutic environment outside the walls of the buildings, ensuring that residents can benefit from the landscape and experience it in a meaningful and safe way. This includes compliance with the requirements of The Americans with Disabilities Act (ADA), which addresses both physical and cognitive disabilities.

### *Landscape Design*

Landscape improvements should incorporate fundamental landscape principles in material selection, spatial relationships, and aesthetic appeal.

### *Sustainability*

Landscape improvements must be consistent with the Agency's goals under Executive Orders 13514 and 13423. AFRH must consider the environmental impact of projects related to the management and use of energy and exhibit leadership in environmental, energy, and economic performance. Projects should take into account the potential to reduce greenhouse gas emissions, energy intensity, and water consumption intensity. This includes capitalizing on opportunities to introduce renewable energy sources into the landscape.

### *Landscape Management*

Landscape improvements should be consistent with the recommendations provided in the 2007 Landscape Management Plan for AFRH. In general, landscape improvements should be designed and implemented in a manner that considers maintenance and cost implications, as well as the long-term health of the landscape.

# THERAPEUTIC ENVIRONMENTS

## *Existing Guidelines:*

There are no existing landscape guidelines for Therapeutic Environments for AFRH-W.

## *New Guidelines:*

The existing site of AFRH-W is by its very nature a therapeutic landscape. Adding trees, shrubs, perennials, water, color and meditative areas will further enhance the site. Continuing the design principals of old will go a long way toward maintaining the site's therapeutic character.

Newton's definition of Landscape Architecture, the "art of arranging land together with the spaces and objects upon it, for safe, efficient, healthful, pleasant human use" is extremely broad. Since the early 1900s the design of award-winning landscapes have turned toward modernistic interpretive designs, similar to abstract paintings. Such designs for therapeutic environments have proven to be failures. The studies on the effectiveness of various therapeutic landscape techniques is in its infancy, less than 100 research studies have been published. The US Department of Veterans Affairs is studying the effect of therapeutic gardens on PTSD patients in conjunction with Utah State University. We do know, through observation and study, the following effects of therapeutic environments: reduce stress, improve feelings of ones self, lower blood pressure, summon internal healing abilities, improve coping skills with incurable conditions, provide a setting for horticulture therapy or physical therapy, provide a place for staff to relax and reduce their stress, and provide a place for residents and family to visit outside.

The design of therapeutic environment varies depending on the type of client. A garden for children in a hospital will be very different for residents in an Alzheimer's wing. The following guidelines for therapeutic environments at AFRH-W will document what is known to date that applies to the campus. More study is needed.

The AFRH-W was established in 1851. The landscape was a farm with rolling hills, open fields for grazing cattle and growing crops. By the site's very nature of being pastoral, it always had the character of a therapeutic environment.

From the 17th century to the early 19th century, fresh air and being with nature in a green landscape was often the final prescription for healing. The existing design elements of the Home as a pastoral setting support this prescription perfectly. The curvilinear roads and paths, open spaces, meditative areas and woodlands, trees and flowering plants, water, color and art plus reminders of military heritage are supportive elements of the pastoral and therapeutic environment.

Roads & Paths – To date no study has been made to determine the preferred therapeutic design for either straight or curved paths and roads. We do know that seniors do not prefer frequent intersections or frequent tight curves. It is too difficult to make the turns either with a car or with a walker or PMD. Long easy curves are easier to maneuver. AFRH-W has a long easy curves in its historic road system and thus it is consistent to continue the pattern where possible. At the area between the Grant Building and the Stanley Chapel, the paths are more formal, in a grid pattern. It is easily visible and simple to understand. The intersections are spaced far enough apart that movement in any direction can proceed for some distance before the next turn. It is important to design interest into the paths. An unexpected feature or reward just around the corner to encourage the continuation of the stroll is appreciated. This can be a flowering plant, an interesting tree, or a bit of open space. All exercise is extremely important for improved heart and lung function, and encouraging movement through the campus is part of the therapeutic environment.

Open Spaces – The AFRH-W has a significant number of open spaces within its 272 acres with the golf course being the largest. The historic 'Meadow' and combination driving range and community garden areas make up the next two (2) largest areas and the areas around the Lakes. Smaller areas include the lawn and walks between the Sherman Building and Lincoln Cottage and the Scott and Sheridan buildings; the east side of Sheridan, the quadrangle formed by the Grant Building and Stanley Chapel and the opposite parking area; and the areas around the Rose Chapel. There are multiple opportunities for residents to stroll somewhere and sit, view the landscape, and relax. Open space simply viewed from a window has been proven to have a positive mental effect on a patient. Studies have been performed on surgical patients where one group had windows with a view and the other group's window looked at a brick wall. The patients with a view required less pain medicine, had fewer complaints, and went home earlier than the other group. New hospitals now require all recovery rooms to have windows with an open view.

## THERAPEUTIC ENVIRONMENTS CTD.

Meditative Areas and Woodlands – Meditative areas require quiet and privacy. There are multiple areas on campus where one can find peace and quiet. This plan is recommending an additional area specifically for meditation. Meditative areas can be open or closed. They are usually private, where one can think, read or be distracted by watching nature – the activity of birds or butterflies, trickling water or rustling leaves. These are places where one can loose oneself to thought. These areas reduce stress.

Woodlands can create a meditative environment also. Usually the process is less passive and more active. A stroll or walk through woodlands is a relaxing effort. The physical exercise along with being in the shade, the rustling of the leaves and the fresh smells of the earth is stimulating and a change of pace. The WIMSA trail through Rose Chapel Woods can provide just such a stimulus. Making a decision to take a walk, a resident feels more in control of their own life and less institutionalized.

Trees and Flowering Plants – Clare Cooper Markus, in his ‘Healing Gardens for Hospitals, 2006’ states that,

“For a garden to provide maximum therapeutic benefits, it needs to have a plentiful supply of plant materials, some with distinctive seasonal changes; leaves or grass which move with the slightest breeze; subtleties of color, texture, and leaf shape especially where frail people may move slowly looking down or where people may sit for long periods in one setting. Plants may also be experienced unconsciously as metaphors. Trees can provide metaphors of solidity, strength and permanence; perennials of persistence and renewal; annuals of growth, budding, blooming, seeding, decay, death and transformation.”

The most striking plant element at AFRH-W is the quantity of large mature trees. These trees give the Home a sense of permanence and lasting through time. This is a problem at the same time, since the trees are aging, many requiring replacement. Adding shrubs that attract birds & butterflies and have colorful flowers will increase the wildlife and create more interest for the residents.

Water – Water is a key element in so many ways. It is an essential element of life. The majority of our bodies is water. We are drawn to areas of water for recreation, enjoyment and viewing. We love to watch water dance in fountains, bubblers, streams, and waterfalls. We are thrilled by the majesty of the force of oceans and soothed by a calm stream. The Lakes at AFRH-W is one of the cherished locations at Home. In the residents meeting, the Lakes drew the most interest in improvement by all residents. Adding water features elsewhere on the northern part of the campus would be a great asset and improve the therapeutic effect of the area.

Color – Lack of viewing color, like hearing, is one of the disabilities that are silent. We can not tell that an individual can not see color well nor by looking at some one do you know they can not hear well. While blindness is usually noticeable by a white cane or animal assist or a human assistant. As we age, cells within the eye decline and colors become less bright. The muscles that control the pupil get weaker and more light is needed to see. Seniors are more likely to be dazzled by bright sunlight and glare when emerging from a dimly lit building. Blue becomes washed out. The subtleties of grays become black or white. It is generally recommended to use plants that produce red, yellow, or orange colors either in the flowers or leaves to ensure that seniors can see the colors. People who are color blind either from birth or from a disease usually can not distinguish red from green or in the worst case blues from yellows. They have learned to adapt. A rare few people have both forms of color-blindness and see in only white, black, and tones of gray.

Art plus Reminders of Military Heritage – Art and sculpture in the landscape for retirement homes, hospitals, nursing wings, and Alzheimer’s wings must be reflective of reality and not interpretive. As the mind ages, the process of interpreting and appreciating the subtleties of modern art begins to disappear. In the planning session with AFRH-W residents, they specifically requested that art look like something they could recognize, a landscape or a flower. Reminders of the residents’ military heritage seem to be appreciated by the residents. Interior and exterior displays are useful to the retired soldiers. They use the displays to share with family and visitors their history and the history of the home.

# LIGHTING

## *Existing Guidelines:*

Master Plan Guideline (general): “Street lights, the primary form of site lighting, shall be attractive both day and night. Street light standards shall match the materials and be compatible with the style of the standard site furnishings (though not necessarily replicating it), while fitting in with the scale of the adjacent street and character of individual zones. Pole heights shall range from 12 to 18 feet, depending on the street type... and fixtures shall be full cut-off to direct lighting down toward the street while preventing excess light pollution.” (page 38)

Master Plan Guideline (North-Northeast Sub-zone): “In addition to the existing lamp posts that are introduced as part of the site-wide standard streetscape, within the North-Northeast Sub-zone, lighting shall be used...to highlight pedestrian crossings at night. Pathway lighting will help with way-finding at night.” (page 60)

Master Plan Guideline (Golf Course Sub-zone): “Street lights shall be the primary source of illumination for the golf course at night, especially considering it is not intended to be used after dark. Light fixtures shall be consistent with those used throughout the Home.” (page 76)

Master Plan Guideline (Other Areas Sub-zone): “In addition to the lamp posts used consistently throughout the Home, lighting shall be used to highlight pedestrian crossings.” (page 89)



*The Master Plan recommends fixtures with a sharp cutoff to direct light downward to usable areas (right), as opposed to non cutoff light fixtures that create excess light pollution and waste energy by throwing light into the trees and sky (left)*



*Existing historic light fixture at AFRH-W. Historic light fixtures should be protected and preserved.*

# SIGNAGE

*Existing Guidelines:*

Master Plan Guideline (general): “In the design and development of signs and environmental graphics, the highest concern is for the first time visitor of each zone. The goal of signage is to make each development zone more welcoming and accessible without detracting from its beauty. Information shall be provided clearly and only where necessary. There shall be a minimal number of signs and they shall be designated to enhance the appearance of the development. Signage shall be in keeping with the character of each individual zone, as well as appropriate to the scale and features of the landscape and neighborhoods along the perimeter...Signage shall be designed as a system so that the visitor can quickly become familiarized with the signing and can develop expectations (in effect, know ‘where to look’ for information). Signage for each zone shall be consistent in color, scale, and placement. Messages should be consistent so that the same nomenclature is used on pre-trip information, verbal confirmation, directional signage in route, and finally, identification signing at the destination. New signage shall be implemented on a ‘need to know’ basis. No additional information shall be provided unless it is absolutely necessary. Eliminate non-essential information and sign clutter whenever possible.” (page 39)

Master Plan Guideline (general): “Sign elements along the perimeter shall be appropriate to the scale of the streetscape. Designs shall also be sensitive to features along the perimeter such as fencing. Security is an important consideration with regard to the AFRH Zone. Areas of restricted access shall be clearly defined. Signage in adjacent zones shall take into consideration these security restrictions as well to avoid conflicting information.” (page 39)

Master Plan Guideline (Chapel Woods Sub-zone): “Signage shall be kept to a minimum to reduce the impact on the natural surroundings. Whenever possible, building-mounted signs shall be used in place of pole-mounted panels. Sign panels shall be dark with light text so that the sign panel and structure recede while maintaining a legible message.” (page 71)

Master Plan Guideline (Golf Course Sub-zone): “Signage in the Golf Course Sub-zone will be in keeping with the overall AFRH site character. The use of natural materials is also encouraged in place of traditional signs to maintain the integrity of the course and reduce sign clutter. A new clubhouse is planned that will require identification signs. Regulatory signage may also be required for controlling parking and providing rules and regulations.” (page 77)

See Appendix X for signage specifications provided by the Master Plan.



The Master Plan recommends specific sizes, materials, proportions, and color palettes for signage.



The Master Plan recommends specific treatments for signage installation.

# GRANT BUILDING

Adobe Trajan All Caps Letterspacing: 125 em/1000

## Visitor Parking

Adobe Garamond SemiBold - Upper & Lowercase Letterspacing: 25 em/1000

## *Golf Course*

Adobe Garamond SemiBold Italic - Upper & Lowercase Letterspacing: 25 em/1000

## *Hours of Operation*

Adobe Garamond Italic - Upper & Lowercase Letterspacing: 25 em/1000

ABCDEFGHIJKLMNOPQRSTUVWXYZ  
0123456789

Trajan Regular

ABCDEFGHIJKLMNOPQRSTUVWXYZ  
0123456789

Adobe Garamond SemiBold

ABCDEFGHIJKLMNOPQRSTUVWXYZ  
0123456789

Adobe Garamond SemiBold Italic

ABCDEFGHIJKLMNOPQRSTUVWXYZ  
0123456789

Adobe Garamond Italic



Directional Arrows



Symbols

The Master Plan recommends specific fonts and symbols for signage

# FURNISHINGS

## *Existing Guidelines:*

Master Plan Guideline: “Site furnishings that are compatible with the historic character of the Home shall be chosen for use...Historic benches, trash receptacles, light fixtures and other furnishings shall be looked to for inspiration when specifying a standard, but furnishings need not replicate historic styles. The use of iron in new site furnishings will evoke the monumental character of the historic structures that define the Home.” (page 37)

Master Plan Guideline (North-Northeast Sub-zone): “Because the North-Northeast Sub-zone is the most heavily populated area within the AFRH Zone, site furnishings, particularly benches and trash receptacles, will need to be placed in higher volumes here than elsewhere...Open spaces shall be designed to accommodate large amounts of seating. Site furnishings shall be in keeping with the historic character of the zone.” (page 60)



*Existing historic site furnishings, including objects and benches, should be preserved and protected.*



*The Master Plan provides recommendations for new benches and trash receptacles*

## PLANTING MATERIALS

### *Existing Guidelines:*

Master Plan Guideline (general): “Trees and plant materials shall be consistent with the types of species historically found at the Home. Species may be the same or similar to existing and/or historically associated trees and plants, and cultivars may be used when reasonably similar to existing or historically associated tree and plant materials.”

### *New Guidelines (also see Appendix F and G):*

**PLANTS TO AVOID:** AFRH should avoid any plant species that are poisonous or create significant allergens in any season.

**SUSTAINABILITY:** The AFRH-W is under two(2) Executive Orders to become sustainable. There are no LEED criteria that exactly fit an existing landscape. The goal is to develop site sustainability by selecting plants that are the right fit for a specific location. The designer should not assume that there will be significant pruning available for the selection in the future. Pruned hedges, topiaries, and knot gardens are to be avoided. Also to be avoided are plants with a history of diseases and insect problems or adding plants that complete a disease cycle. For example, the Home has crabapple on the campus; planting *Juniperus americanus*, a native, or Red Cedar would complete a Cedar-Apple Rust cycle that with time will cause the Crabapple to decline and die.

**NOT NATIVE SPECIES:** Non-native plants have been collected, shared and cherished for centuries. It was fashionable for the wealthy to sponsor a botanist on his trip to China or Japan to bring back seeds or cuttings of the amazing plants he found. These historical trips were how plants from all over the world came to Europe and America. Nurserymen then grew and experimented with cultivars to develop the best qualities of the new plants. Although the planting list in Appendix F does not list many of these non-native plants, it does not mean they are not suitable for planting. It does mean they must be chosen carefully and assurances given to management on their sustainability and feasibility to be used in the location intended.

**DIVERSITY:** It is critical that AFRH diversify the species of plants at AFRH-W to minimize vulnerability to parasites, insects, and diseases that target single species. Currently, a majority of trees on the AFRH-W are Oaks in particular Willow Oaks. Ranking second and third respectively are Chestnut Oaks and Pin Oaks. These are wonderful, majestic trees. To increase diversity but maintain the same character as the oaks, future plantings should consider other deciduous trees. Additional trees will add more interest to the campus and a wider variety of color in the fall. The most common existing evergreen is White Pine and Southern Magnolia. White Pine can be a stunning evergreen, but it can die for no explainable reason. Notice that some of the trees prefer moist or wetter soils, use them near the Lakes or future storm water features. See Appendix F and Appendix G of the MLP for specific recommendations for plants to use and avoid.

# PLANTINGS CTD.

## TREESCAPE

### *Existing Guidelines:*

The 2007 “Tree Survey for the AFRH” prepared by Keith C. Pitchford, Arborist is a detailed look at 452 major trees and 379 minor trees on the historic north portion of the campus. A metal tag was placed on the major trees with a number that corresponds to a number in the report and an approximate location of the tree was located on a map. Each species was identified along with their size, condition, general remarks, recommendations and a multi-year plan for management and costs. Fixed plot surveys were made in the Chapel Woods. In the Golf Course, the trees in the areas under consideration for two (2) future holes were also evaluated. Recommendations were made for maintenance practices.

Master Plan Guideline (general): “Trees that contribute to the historic character shall be preserved and enhanced. In places where thinning of the canopy or buffer plantings has occurred, reforestation with similar species shall be introduced to supplement existing plantings, thereby reinforcing the vegetative edge and strengthening the character of bordering open spaces. Invasive plant species shall be removed on a regular basis to prevent damaging overgrowth.” (pages 36-37)

Master Plan Guideline (general): “Removed trees shall be replaced on a one-to-one basis.” (throughout)

Master Plan Guideline (North-Northeast Sub-zone): “If a building is constructed on the site of the former Sheridan Building, landscaping must be designed to minimize adverse impacts to the views from Lincoln Cottage. Efforts shall be made to plant trees with a minimum caliper of 3 inches.” (pages 59-60)

Master Plan Guideline (Chapel Woods Sub-zone): “AFRH will put in place a maintenance plan to ensure the long-term viability of these natural stands...[Chapel Woods West] is in relatively good health, with an ample number of young under-story trees ready to take the place of mature canopy trees once they die. Only occasional trail maintenance and removal of invasive species is necessary here...[Chapel Woods East], however, is close to reach its mature state. In order to sustain this stand, an infill program of younger trees shall have to be initiated to replace the mature canopy trees as they die off. Additionally, mowing in this area shall be reduced to twice a year to allow leaf litter to accumulate and biodegrade on the forest floor, releasing valuable nutrients to the existing tree roots...Tree canopies and vegetative buffers throughout the zone shall be preserved and enhanced.” (pages 69-70) This is the same recommendation as the arborist in the 2007 “Tree Survey”

Master Plan Guideline (Other Areas Sub-zone): “Particularly along South Pershing Drive, the existing cadence of street trees shall be rehabilitated by infilling where trees have died or been removed for construction. Newly planted trees shall match the species of the existing trees.”

The promenade between the Scott Building and the Sherman Building had been tree lined. Over time the trees declined and died leaving only 2 or 3 of the original trees. It is recommended that the remaining trees be removed and new hardier trees be installed to align the promenade and it’s side branch to the Sheridan Building. The new trees should be deciduous and a minimum size at installation of 3” caliper.

## PERIMETER PLANTINGS

### *Existing Guidelines:*

Master Plan Guideline (general): “A dense vegetative buffer serves to insulate much of the Home from the surrounding urban fabric, while allowing some screened views into the site. In some places, particularly along the site’s eastern boundary at North Capitol Street and portions of its southern boundary along Irving Street) plants have been lost and/or invasive plant species have proliferated. This vegetative buffer shall be preserved and restored with additional plantings. Invasive plant species shall be removed on a regular basis to prevent damaging overgrowth. In places where more recent development caused the removal or thinning of the buffer plantings, reforestation with similar species shall be introduced to supplement existing plantings and thereby reinforce the character of the buffer zone.” (page 36)

# PLANTINGS CTD.

## FOUNDATION PLANTINGS

### *Existing Guidelines:*

Master Plan Guideline (general): “Historically, building foundation plantings were judiciously utilized to emphasize the grandeur and monumentality of the Home’s most prominent structures. Mass plantings of a limited number of shrub or small tree species shall be used to highlight building entrances and, where appropriate, provide a transition from the horizontal ground plane to the building’s face. Species similar to those used historically at the Home is preferred.” (page 37)

Master Plan Guideline (North-Northeast Sub-zone): “The existing masses of shrubs and small trees flanking entrances of major buildings shall be maintained and rehabilitated, where necessary, to ensure an even, symmetrical appearance. Any new buildings in this area shall judiciously employ the use of foundation plantings to match the character of the adjacent historic buildings and respect nearby landscape resources and those buildings near it.” (page 59)

Master Plan Guideline (Chapel Woods Sub-zone): “Because of the forested nature of this area, foundation plantings are not appropriate around buildings in this sub-zone.” (page 70)

Master Plan Guideline (Golf Course Sub-zone): “Service buildings within the Golf Course Sub-zone area shall be surrounded by foundation plantings to create a transition from the open pastoral setting of the course to the structure. Species shall be in keeping with existing foundation plantings at the Home. Native plant material shall be used in foundation plantings. A mixture of both evergreen and deciduous plants are recommended. Plants that require minimal pruning are preferred.” (page 76)

Master Plan Guideline (Other Areas Sub-zone): “Most of the structures throughout this portion of the Home are single family houses; foundation plantings here serve as a buffer between the house and the street and may remain intact. Investigation of historic plantings schemes can be used as the basis for restoring the foundation plantings areas surrounding the houses and shall remain intact.” (page 89)

# CIRCULATION AND STREETScape

## *Existing Guidelines:*

Master Plan Guideline (general): “The palette of site materials serves to unify the overall landscape. Asphalt paving with granite curbs and brick gutters, concrete sidewalks, brick pathways...This same palette shall continue to be used to ensure visual continuity of the Home. Roadways shall be constructed out of asphalt with a monolithic granite curb. Sidewalks shall be constructed of concrete or brick pavers, depending on the intended character of specific areas.” (page 37)

Master Plan Guideline (general): “Paths, roads, or other forms of circulation through open spaces shall be configured and use materials that enhance the historic character of the open areas, are consistent with the architectural character of surrounding buildings, and respect associated landscape elements.” (page 36)

Master Plan Guideline (general): “The existing circulation pattern of the Home – meandering, tree-lined, two-lane, shared use roads with off-street parking – forms a character-defining element. The picturesque configuration of the streets, which for the most part date to the 1870s when the Home was a popular site for horse and carriage rides, reinforces the notion of ‘traffic calming’ and joint use for vehicles and pedestrians to access destinations within AFRH-W grounds. Maintaining the shared-use emphasis of the streets within the Home is crucial to preserving a consistent historic, pastoral character throughout. Additionally, streetscapes throughout the Home shall be relevant to their surroundings. Streets within urbanized areas need to be designed to safely accommodate high volumes of foot and vehicular traffic, while roads that wind through the Home’s open spaces shall reflect the character of the rural road: narrow-bending, tree-lined rights-of-way.” (page 27)

## *New Guidelines:*

The guideline above from the Master Plan page 27 has not anticipated the change that is coming to the AFRH-W with the completion of the new Scott Building and the closing of the LaGarde Building. A cost saving measure will be implemented that will eliminate the bus shuttle service that currently moves residents and staff throughout the campus. The shuttle service will be replaced with electric golf carts to move throughout the campus. These vehicles are more energy efficient and quieter than the bus. They will move slower through the campus. Those residents with hearing issues will have difficulty hearing them coming. They will be fun to drive and more residents will want to use them.

# SAFETY/COMFORT FEATURES

*Existing Guidelines:*

There are no existing guidelines for safety/comfort features.

*Existing Guidelines:*

Water stations, alert stations, and charging stations should be provided throughout the grounds to make residents feel more comfortable venturing long distances on foot, PMD, or wheelchair. These amenities should be concentrated around designated outdoor gathering areas or any other major node of activity on campus.

# FENCES AND GATES

## *Existing Guidelines:*

Master Plan Guideline: “A limited number of pedestrian openings may cut into the historic perimeter elements to facilitate access from the adjacent neighborhood to parks and other amenities. Historic gatehouses and entrance gates shall be rehabilitated when possible.” (page 36)

## *New Guidelines:*

Any new fence installed to accommodate limited public access to the southwest area of the campus should follow similar guidelines set by the Master Plan for the Zone A fence, including:

- The fence should not cut through any of the distinct Character Areas defined by the HPP, unless following a primary circulation route.
- The fence should not be penetrable except at designated access points.
- The fence should be high enough to deter entry, with the height at any particular location depending on the topography.
- The design of the fence should not inhibit views or become a visual barrier; people should be able to see through and/or over the fence.
- The fence and its access points should be in keeping with the historic examples extant on the property and not significantly detract from the historic character of the surrounding area; a contemporary, visually subtle design may be used if it is compatible with the historic character of the campus.



*The Master Plan recommends types of new fencing for AFRH-W*

# COMMEMORATIVE OBJECTS AND SCULPTURE

## *Existing Guidelines:*

Master Plan Guideline: “Commemorative objects, such as sculpture, memorial markers, howitzers, cannons, cannon balls, a tank and airplanes are found throughout the site. Many of these objects are historically significant and provide insight into the history of the Home and its residents. New objects and sculpture are encouraged and may be consistent with the military theme of the Home, especially within the AFRH Zone.” (page 37)

Master Plan Guideline (North-Northeast Sub-zone): “Commemorative objects...are most prevalent within the North-Northeast Sub-zone. New commemorative objects, consistent with the military theme of the Home, shall continue to be placed in appropriate locations, such as open spaces and focal points.” (page 60)

Master Plan Guideline (Chapel Woods): “There is a single commemorative object: the Henry Wilson Monument. New commemorative objects, consistent with the military theme of the Home, shall only be placed within this sub-zone if thorough consideration of the placement has been conducted and it is determined that this is the most suitable locale for the particular object.” (page 69).

# VIEWS AND TOPOGRAPHY

## *Existing Guidelines:*

Master Plan Guideline (general): “Much of the existing development within AFRH-W was carefully sited to take advantage of the varied topography that is presented throughout the site. Historically, topographical features were used to create, define, or obscure key views to, from, and between built resources of the Home.”

Master Plan Guideline (North-Northeast Sub-zone): “The existing level of visibility from outside the property through the boundary fence shall be maintained, except where landscape improvements may be needed to replace dead trees.” (page 59)

Master Plan Guideline (Chapel Woods Sub-zone): “The view of new construction from the north side of Rose Chapel shall be limited...” (page 69)

Master Plan Guideline (Golf Course Sub-zone): While the existing golf course is not a Contributing Resource in and of itself, the fact that it has [historically] remained open space...is a major reason so many of the historic views within the Home are still intact. The golf course will remain in place, preserving the picturesque character of the Home and allowing those historic views to remain.” (page 76)

Master Plan Guideline (Other Areas Sub-zone): “This sub-zone, which is not intended to receive new development, shall be preserved both in terms of views into and from the sub-zone. Prominent vantage points such as Scott Statue have been taken into account...so that new construction will be designed in such a way as to allow existing significant views to remain intact.” (page 89)

# COMPOSTING

## *Existing Guidelines:*

There are no existing guidelines for composting at AFRH-W.

## *New Guidelines:*

AFRH is exploring the opportunity to compost organic materials on site at the Washington campus. According to the EPA, yard trimmings and food residuals together constitute approximately 27 percent of the US municipal solid waste stream. That number represents a significant amount of waste sent to landfills rather than being converted to environmentally beneficial material. The compost can then be used for plantings, gardens, and other applications on site, or sold to another party. AFRH employees, residents, and operations generate a quantity of organic material that, if recycled correctly, could sustain a large composting initiative at AFRH-W. Composting offers the benefits of resource efficiency and creating a useful product from organic waste that would otherwise have been landfilled. Composting also contributes to the 50% waste diversion target under Executive Order 13514.

AFRH-W composting has the potential to be a sizable operation. Compared to a program managed by a small number of individuals or residents, AFRH-W's composting initiative will likely need to be managed by AFRH staff and operated on a large scale. It is necessary to acquire accurate data regarding AFRH's organic waste production on campus, and what fraction would be composted, in order to determine the importance of additional resources. For a large composting operation, additional resources may include:

- Bulking agents
- Human Labor
- Tractor (for turning the piles)
- Mechanical Shredder/Pruner
- Shovels/Pitchforks
- Tarp
- Compost Thermometer(s)

## **INGREDIENTS**

All composting requires three basic ingredients:

- Greens (high nitrogen materials: vegetable waste, fruit scraps, etc.)
- Browns (dry organic matter: leaves, wood chips, saw dust, etc.)
- Water

Controlled decomposition requires a fixed ratio of greens to browns based on the temperature, moisture, and oxygenation needs of the pile. The browns provide an additional carbon source to the mixture that fuels the microbes breaking down the nitrogen-rich greens. The browns also serve as bulking agents and promote better air movement through the pile, speeding up the natural degradation process of organic material. The conversion of organic material to compost can take up to two years, but manual turning, via shovels or tractors, can hasten the process considerably.

A compost pile should be constructed using a uniform layering system, stacking three separate materials on top of one another until the desired height of the pile is reached. The three layers are 1) organic materials, 2) starter materials, and 3) top soil.

The table below provides additional information regarding the depth and composition of each layer. Layer 1 should act as the “bottom layer” while the other layers would be placed, in order, on top.

**Compost Layer Composition<sup>1</sup>**

Layer	Composition	Depth	Additional Information
1	<i>Organic Materials</i>	6"-8"	Includes organic waste and bulking agents. Remember to maintain the proper Carbon:Nitrogen ratio (depending on site and ingredients).
2	<i>Starter materials: Animal Manures, Fertilizers, etc...</i>	1"-2"	Activators that accelerate the initial heating of the pile and provide addition nitrogen to microbes.
3	<i>Top Soil</i>	1"-2"	This layer helps introduce the microorganisms to the composting pile. Plain Garden soil is sufficient.

**SITE SELECTION**

For AFRH to determine where a composting site would be located, it will need to consider criteria such as proximity to water, shading, foundation stability, accessibility, and proximity to occupied buildings. For smaller compost initiatives with a limited but constant stream of food waste (AFRH-G), proximity to water and shading are more important considerations for site selection. For larger composting schemes (AFRH-W), tractor access, manual vs. mechanical turning, and locating a stable foundation should also be considered in the selection process. In general, composting sites (of any size) are typically located on flat, open, dry, shady, and reclude sites close to a water source. Ideally, the site would also be located close to any plantings or other on-site areas where the compost will be used to facilitate easy transport, reduce fuel costs, and cut transportation emissions. The AFRH-W campus contains a large amount of open terrain, but the Agency will need to consider current development plans as well as proximity to current and planned structures in selecting a site.

Water is a key element in compost that helps transport substances within the pile and makes the nutrients in organic material accessible to the microbes. The site itself needs to be dry so the level of moisture can be controlled. Shading is also a vital element in compost to help regulate the amount of direct sunlight absorbed by the waste. Although microbial activity increases the temperature of the pile and promotes rapid composting, too much sunlight may dry out the pile or cause the temperature of the waste to exceed its optimal level for decomposition. When all conditions come together correctly, the center of the pile will heat up to between 110-160 °F, killing all bacteria and breaking down the organic material. Any material that is not properly decomposed on the outer edges of the pile can be shifted into the hotter center during manual turning.

<sup>1</sup> Information from table gathered from University of Illinois. <http://web.extension.illinois.edu/homecompost/building.html>

# OPEN SPACE

## *New Guidelines:*

Master Plan Guideline: “In some cases, open spaces are the result of the formal siting of buildings into clusters...The majority of open spaces at the Home exist as large open areas, once agricultural fields, dairy pastures, or meadows, resulting from the site’s early uses, landscape elements, and natural topography...Those areas within the AFRH Zone not specifically scheduled for development...such as the golf course, building quadrangles, woodlands, forests, and other open areas, will be preserved and protected as open space in their historic form.”

Master Plan Guideline (Other Areas Sub-zone): “Open spaces in this sub-zone shall be preserved and rehabilitated to their [historic] character...The Lakes, for example, shall remain a picturesque area buffered on all sides by plantings to serve as an isolated oasis for passive recreation.” (page 89)

# APPENDIX

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# A. RESIDENT PLANNING SESSION

An advertised resident planning session was held in the Sheridan Building at 9:30 am on May 21, 2012. Seven (7) residents and one (1) staff member attended. The planning team presented the Landscape Master Plan presentation from the March 2012 meeting with staff. Discussion developed as the presentation moved forward. The residents had strong feelings about various aspects of the campus. Their comments were written down on flip charts and taken down in notes. When the discussion seemed to wind down the residents were given five (5) narrow sticky strips and asked to vote on the items of discussion that were most important to them. Following is the result of the discussion and the voting is in parenthesis behind the item.

Lakes	Picnic Areas	Activities	Trails	Memorabilia	Transportation
Dredge (6)	Stanley Chapel (2)	Baseball back (3)	Add a Perimeter Path	Apache Helicopter	Power stations for PMDs (3)
Repair walls (4)	Grant Area (1)	Bird Watching (1)		Ship plaques	
Add PMD Power Stations (3)	now students are gone	Croquet	Distance Markers		Road stripes with reflective beads (1)
Add shrubs to attract birds (3)	Band stand (1) improve seating	Raised Gardens at Sheridan	Signage at trail head to describe the trail and length	HH433 Helicopter	
Lower fence, prefer no fence	Community Garden (1) seating	Provide tools for residents to give tours of the grounds to visitors			Golf carts other than for golfing
Add benches	Improve Golf Area (1)		WIMSA trail is too narrow, steps at end and no benches		
Add fish	Water stations				
Fix bridge	Bulb plantings near gathering areas				
Improve pond					
Build a pier					

The most important area of interest is the Lakes. Water is always an attraction to people. It is relaxing, therapeutic, an opportunity to feed the ducks, geese or fish. They are concerned that the area has been falling in disrepair. It also shows that they have not been down to the lakes recently and seen the improvements the US Coast Guard have made. Their interest in the lakes has been duly noted.

The next area of greatest interest were the gathering areas. Similar to the lakes these are areas on campus that can be used for group activities or individual retreats. During mild, nice weather it is good to have a nice outdoor area to read, or listen to music while people watching. Many of these areas make great opportunities to have staff prepare a picnic lunch or a Sunday Fellowship Dinner after church outside at the Stanley Chapel similar to other congregations. It would be nice to have a lunch before a golf outing or refreshments afterwards. These gathering areas will have varying levels of use intensity. Adding outdoor furniture and amenities need to match the intensity of use to prevent a cluttered look.

The outside activities are relatively simple. Restoring the softball field was very important. Not so much that the senior residents were able to play the game, but more so they could watch the game being played by others. There are lawn games that residents can play. These include croquet, table tennis, bocce ball, and horseshoes to name a few. These games could be set up in the Sheridan Gathering Area where the land is flat and accessibility is easily accommodated.

Trails were discussed at length. The concept of a Military Heritage Trail was very positively received, along with a trail of the history of the AFRH. There a gentleman that has put together his own verbal tour guide of the home. The suggestion was

made that a prepared pamphlet or script be made for volunteer residents could give tours of the home to visitors. This was an activity that several of the folks in the room would like to do occasionally. One resident explained that he has created his own perimeter trail walking the boundary of the home. We have modified it slightly and called it the Perimeter Trail. This trail will be only for able bodied individuals. It will offer much more of a workout and challenge for anyone who wishes to use it. Distance markers will be placed along the trail for encouragement and reassurance that the user is still on the trail. A trailhead sign will be at the start of each trail.

The WIMSA is a concrete trail through the west side of the Rose Chapel Woods. It is slightly too narrow for today's PMDs. In several places the soil along the edges of the trail have eroded, exposing about 2" of concrete. This difference is just enough to tip a PMD or cause someone to miss step and fall. Repairs are needed on this trail. Currently it ends at the LaGarde Building. That building will no longer be part of the main campus. It is important that the trail wind back through the woods on the east side of Rose Chapel Woods and complete its loop.

Many residents use Battery Powered Vehicles or PMD's. Battery powered golf carts will soon replace the contracted bus system that shuttles residents to various parts of the campus. Residents have a concern that when they get to their destination, they could run out of power and not get back to their residence. They are request charging stations to be installed at various locations through out the campus. The residents asked for more golf carts. This request will be coming as noted above.

To improve their safety while traveling the roads of the AFRH in battery powered vehicles they would like to have an area striped and set aside for their use. These striped areas would have reflective glass beads embedded in the striping paint.

Military memorabilia is important to the residents of the Home. It is part of their personal heritage and the heritage of the home. There are many items of military memorabilia displayed on campus. In the new Scott Building there will be an internal display called the 'Hall of Honors'. The residents recommended additional items as shown in the chart.

## B. RAISED BEDS

Following are the requirements for the raised garden beds.

1. Provide, design and install 4' W x 8'L x 30"H raised garden beds ADA Accessible Plot. Locate the beds to maximize summer sun exposure.
2. The walls of the raised beds to be constructed of a decorative concrete block system (Keystone Wall System) raised flower bed wall system. Color samples and composition to be supplied prior to contractor purchase. Preference will be given to straight split block and smooth faces to protect the knees and legs of the users.
3. Follow the Keystone specifications. These can be found on their web site. In particular, there should be a 6" deep leveling pad extending 6" on either side of the first block. This pad should be located 1 ½ units below ground. Place fill in the cores of the units between the units and behind the units. The fill should be clean crushed 1" stone or gravel in accordance with ASTM D-22. Glue the cap with all weather adhesive or Keystone Kapseal.
4. Install a 4" perforated flexible drainage pipe in a filter sock along the base of the interior. Provide opportunities for weeping in the first surface layer of blocks.
5. Back filling the soil mix to bring the soil back up to the surface, while building the frame. After 4 blocks have been laid a structural support across the planter is to be installed every 2' across the planter. Stop the soil mix within 2" of the top of the frame after final settlement.
6. The corners on the ADA Accessible plot shall be rounded as much as possible.
7. All blocks are to be glued in place with a cap on top.
8. Water Supply: Provide a one inch (1") water supply line from the nearest existing potable water line. Provide a hose bib connector capable of supplying water to three (3) separate hoses simultaneously. Provide three (3) hoses, minimum 50' that will reach all garden plots.
9. Assembly shall be freeze proof and well marked as to not be a trip hazard.
10. Provide a paved access from the existing walking trail to the ADA accessible plots. Pave the area around the accessible plots with asphalt. Ensure that no slope in the access is greater than 12:1 for a period of 30'. Adjacent to the garden plot ensure that the slopes are no greater than 50:1 or 2%.

# C. ADA - OUTDOOR DEVELOPED AREAS

## BACKGROUND

The final draft of the Accessibility Guidelines for Outdoor Developed Areas was issued on October 19, 2009 by the Access Board. Over 600 comments were received during the two-year comment period and information meetings. The final draft was issued after taking into consideration all those comments.

### Whom the Guidelines Apply To

The final accessibility guidelines apply to Federal land management agencies, including the U. S. forest Service, National Park Service, Fish and Wildlife Service, Bureau of Land Management, Bureau of Reclamation, and Army Corps of Engineers. The guidelines also apply to non-federal entities that construct or alter facilities on Federal lands on behalf of the Federal government.

The draft document was developed as a separate, stand alone document. The draft final Accessibility guidelines for outdoor developed areas are formatted for incorporation into the Americans with Disabilities Act and Architectural Barriers Act (ADA-ABA) Accessibility Guidelines. The General Services Administration and the Department of Defense have adopted the relevant chapters of ADA-ABA Accessibility Guidelines as enforceable standards for the Architectural Barriers Act. The following new sections are added to the ADA-ABA Accessibility Guidelines (including only those that are applicable to AFRH):

- ABA Chapter 2: Scoping Requirements
  - F245 Picnic Facilities
  - F246 Viewing Areas
  - F247 Trails
  
- Chapter 10: Recreation Areas
  - 1011 Outdoor Constructed Features
  - 1015 Viewing Areas
  - 1016 Outdoor recreation Access Routes
  - 1017 Trails
  - 1019 Conditions for Exceptions

### Exemptions

Section F201.4 of the new guidelines specifies the requirements limited to facilities constructed or altered by or on behalf of the federal government. The requirements in F244 through F248, and 1011 through 1019 shall apply only to facilities that are constructed or altered by or on behalf of the Federal government.

There are a number of exemptions within sections F244 – F248 of the code for specific situations. At the moment, none of the exemptions apply to the AFRH. However, a project manager, designer or contractor would be wise to read these sections to determine if they apply for their project.

For a complete understanding of the code go to <http://www.access-board.gov/outdoor/draft-final.htm>

## C. ADA -OUTDOOR DEVELOPED AREAS CTD.

### STANDARDS FOR OUTDOOR CONSTRUCTED FEATURES

#### *Definition*

Outdoor constructed features are defined as picnic tables, fire rings, grills, fireplaces, wood stoves, trash and recycling receptacles, water hydrants, utility and sewage hookups, outdoor rinsing showers, benches, telescopes and periscopes. These requirements are minimum requirements. Various combinations of the features are in the scoping provisions for the final report as follows:

- Outdoor constructed features provided within accessible camping units and accessible picnic units are required to be accessible and connected to an outdoor recreation access route.
- An exception addresses the situation where more than one outdoor constructed feature of the same type is provided within an accessible camping unit or an accessible picnic unit. The exception requires no more than 20 percent but at least two of the same type of outdoor constructed feature provided within an accessible camping unit or an accessible picnic unit to be accessible and connected to an outdoor recreation access route
- At least 20 percent of the outdoor constructed features provided in common use and public use areas serving accessible camping units and accessible picnic units are required to be accessible and connected to an outdoor recreation access route.
- At least 20 percent of outdoor constructed features provided at viewing areas and trailheads are required to be accessible and connected to an outdoor recreation access route.
- At least 20 percent of outdoor constructed features provided at each location on trails are required to be accessible. Outdoor constructed features provided on trails are not required to be connected to an outdoor recreation access route.

#### *Scoping Provision*

More details are found in the technical provisions for the constructed features themselves. The U.S. Forest Service and Army Corps of Engineers exceed these minimum requirements.

### STANDARDS FOR CONCRETE, ASPHALT OR BOARD SURFACES

#### *Definition*

Surface - The surface of the clear ground space shall be firm and stable. A stable surface remains unchanged by applying force so that when the force is removed, the surface returns to its original condition. A firm surface resists deformation by indentations. Concrete, Asphalt or Board surfaces meet this definition.

#### *Scoping Provision*

There is a little flexibility in the technical provisions for the ground surfaces in outdoor recreation situations. For example: the ½ inch obstacle height rule for changes in level does not require beveling. Non-concrete, asphalt or board surfaces obstacle heights such as roots or rocks can be as high as 2". Cross slope maximum for viewing and picnic areas and access routes can be as steep as 1:33 when necessary for drainage. Trails can be as steep as 1:20. These changes unusual conditions not found in urban areas.

## C. ADA -OUTDOOR DEVELOPED AREAS CTD.

### STANDARDS FOR PICNIC FACILITIES

#### *Definition*

Picnic Facility – A site or portion of a site developed for outdoor recreational purposes that contains picnic Units.

Picnic Unit – An outdoor space in a picnic facility used for picnicking that contains outdoor constructed features. A picnic unit can contain only one outdoor constructed feature (e.g., a picnic table or a grill)

#### *Scoping Provision*

In newly constructed picnic facilities, where two (2) or more units are provided 20% are to be accessible. If less than two (2) units all units are to be accessible. For existing picnic facilities 20% of the altered or added are required to be accessible, until the number of accessible units match the number for new units. An exception can occur when implementing a Transition Plan.

Other requirements:

- Parking spaces within accessible picnic units to comply with the technical provisions. These technical provisions address minimum width, firm and stable surface and maximum slope in section 1012
- Outdoor constructed features within accessible picnic units to comply with the technical provisions in section 1011.

### STANDARDS FOR VIEWING AREAS

#### *Definition*

Viewing area is an outdoor space developed for viewing a landscape or point of interest such as a mountain range, a valley, or a waterfall. The Scott Statue hill top is a viewing area of the U. S. Capitol and the remainder of the AFRH grounds.

#### *Scoping Provision*

Each distinct viewing location within a viewing area is to comply with section 1015 and include clear ground space, turning space and unobstructed view. Guardrails and safety barriers may obstruct views. See thru panels are recommended in that case.

At least 20 % of each type of outdoor constructed feature provided within a viewing area to be accessible. An outdoor accessible route is required to connect to parking spaces and site arrival points.

## C. ADA -OUTDOOR DEVELOPED AREAS CTD.

### STANDARDS FOR OUTDOOR RECREATION ACCESS ROUTES

When a roadway serves as the general circulation path for pedestrian path for picnic facilities, viewing areas and trailheads, the outdoor recreation access route can be provided within the roadway. Outdoor recreation access routes are not required the above features are featured on trails.

The technical provisions are provided within the code except for the following:

- Conditional exceptions apply to each technical provision for alterations to existing camping facilities, picnic facilities, and trailheads. Conditional exceptions apply to each technical provision for both newly constructed viewing areas and alterations to existing viewing areas. The conditional exceptions are discussed under Conditional Exceptions.
- Where an outdoor recreation access route is provided within a roadway, the outdoor recreation access route is not required to comply with the passing space, slope, and resting interval provisions.
- Where concrete, asphalt, or boards are used, obstacles cannot exceed ½ inch in height and the cross slope and resting interval slope cannot exceed 1:48. These provisions are discussed under Concrete, Asphalt, or Board Surfaces.
- The NPRM exceptions for openings are included in 302.3 of the ADA-ABA Accessibility Guidelines.
- Where resting intervals are provided adjacent to the outdoor recreation access route, a turning space is required.

### STANDARDS FOR TRAILHEADS

#### *Definition*

Trailhead is an outdoor space developed to serve as an access point to a trail. The junction of two or more trails, where no other access point to the trails, is not a trailhead

#### *Scoping Provision*

On new trailheads or altered trails, new signs are required that contain, at a minimum, the following information:

- Length of the trail or trail segment
- Surface type
- Typical and minimum tread width
- Typical and maximum slope and cross slope

At least 20% of each type of constructed feature provided within the trail be accessible. An outdoor recreation accessible route to parking spaces or other site arrival points to the accessible outdoor constructed features, elements, spaces and facilities within the trailhead.

## C. ADA -OUTDOOR DEVELOPED AREAS CTD.

### STANDARDS FOR TRAILS

#### *Definition*

Trails are a pedestrian route developed primarily for outdoor recreational purposes. This definition does not include shared use paths, where paths are shared with bicyclists.

#### *Scoping Provision*

Trails are required to follow the technical provisions for trails when **all** the following conditions are met.

- The trail is newly constructed or altered so that the original design, function, or purpose of the trail is changed. Routine or periodic maintenance activities that are performed to return an existing trail to the condition to which the trail was originally designed are not alterations.
- The trail is designed for pedestrian use.
- The trail connects to a trailhead or to another trail that complies with the technical provisions in 1017

The exceptions for trails are as follows:

- Conditional exceptions apply to each technical provision for newly constructed and altered trails. The conditional exceptions are discussed under Conditional Exceptions.
- The exception based on situations where it is impractical to require the entire trail to comply with the technical provisions is revised. The exception is discussed under Exceptions for Trails and Beach Access Routes.
- Where concrete, asphalt, or boards are used, obstacles cannot exceed  $\frac{1}{2}$  inch in height and the cross slope and resting interval slope cannot exceed 1:48. These provisions are discussed under Concrete, Asphalt, or Board Surfaces.
- The NPRM exceptions for openings are included in 302.3 of the ADA-ABA Accessibility Guidelines.
- Where resting intervals are provided adjacent to the trail, a turning space is required.
- Provisions are added for gates and barriers constructed to control access to trails.

## C. ADA -OUTDOOR DEVELOPED AREAS CTD.

### ADA-ABA ACCESSIBILITY GUIDELINES, CHAPTER 10

The following section provides key points from the ADA-ABA Accessibility Guidelines (Chapter 10) for Outdoor Developed Areas that are relevant to AFRH. The reference numbers (e.g. 1011.5.1) correspond to the reference numbers provided in the guidelines for easy cross-reference.

#### GUIDELINES FOR OUTDOOR CONSTRUCTED FEATURES (1011)

Clear ground space for outdoor constructed features are noted in the following table. Slope of the clear ground surface shall not be steeper than 1:48 in any direction unless the surface is other than concrete, asphalt or boards, then 1:33 is permitted for drainage.

Outdoor Constructed Feature	Minimum Size and Location
Picnic tables	<ul style="list-style-type: none"> <li>36 inches (915 mm) along all usable sides of the table measured from the back edge of the benches</li> </ul>
Fire rings, grills, fireplaces, and woodstoves	<ul style="list-style-type: none"> <li>48 inches (1220 mm) by 48 inches (1220 mm) on all usable sides of the fire ring, grill, fireplace, or woodstove</li> <li>Center the space on each usable side of the grill, fireplace, and woodstove</li> </ul>
Trash and recycling receptacles	<ul style="list-style-type: none"> <li>36 inches (915 mm) by 48 inches (1220 mm) positioned for forward approach to the receptacle opening; or 30 inches (760 mm) by 60 inches (1525 mm) positioned for a parallel approach to the receptacle opening</li> </ul>
Water hydrants	<ul style="list-style-type: none"> <li>48 inches (1220 mm) by 72 inches (1830 mm) with the long side of the space adjoining or overlapping an outdoor recreation access route or <i>trail</i>, as applicable, or another clear ground space</li> <li>Locate the space so that the water spout is 11 inches (280 mm) minimum and 12 inches (305 mm) maximum from the rear center of the long side of the space</li> </ul>
Utility and sewage hookups	<ul style="list-style-type: none"> <li>30 inches (760 mm) by 60 inches (1525 mm) with the long side of the space adjoining or overlapping an <i>accessible</i> parking space or pull-up space for recreational vehicles</li> <li>Locate the space so that the hook-ups are at the rear center of the space</li> <li>Bollards or other barriers shall not obstruct the clear ground space in front of the hook-ups</li> </ul>
Benches	<ul style="list-style-type: none"> <li>36 inches (915 mm) by 48 inches (1220 mm) positioned near the bench with one side of the space adjoining an outdoor recreation access route or <i>trail</i>, as applicable</li> <li>The clear ground space shall not overlap the outdoor recreation access route or <i>trail</i>, or another clear ground space</li> </ul>
Outdoor rinsing showers	<ul style="list-style-type: none"> <li>60 inches (1525 mm) by 60 inches (1525 mm) centered on the shower heads</li> <li>Locate the space so that the shower pedestal or wall with the shower head are at the rear end of the space</li> </ul>
Telescopes and periscopes	<ul style="list-style-type: none"> <li>36 inches (915 mm) by 48 inches (1220 mm) positioned for forward approach to the telescope or periscope</li> <li>Provide knee and toe clearance complying with 306 under the telescope or periscope</li> <li>Locate the space so that the eyepiece is centered on the space</li> </ul>

## C. ADA -OUTDOOR DEVELOPED AREAS CTD.

### **Picnic Tables (1011.5)**

Picnic tables shall provide at least one wheelchair space for each 24 linear feet (7320 mm) of usable table surface perimeter. Wheelchair spaces shall be 30 inches (760 mm) minimum by 48 inches (1220 mm) minimum. Wheelchair spaces shall be positioned for a forward approach to the table and provide knee and toe clearance complying with 306 under the table.

- **Fire Building Surfaces (1011.5.1)** Fire building surfaces shall be 9 inches (230 mm) minimum above the ground surface
- **Cooking Surfaces (1011.5.2)** Where provided, cooking surfaces shall be 15 inches (380 mm) minimum and 34 inches (865 mm) maximum above the ground surface.
- **Raised Edges or Walls (1011.5.3)** Where fire rings, grills, or fireplaces are constructed with raised edges or walls, the depth of the raised edge or wall shall be 10 inches (255 mm) maximum.

**Water Spouts (1011.6)** Water spouts at water hydrants and water utility hook-ups shall be 28 inches (710 mm) minimum and 36 inches (915 mm) maximum above the ground surface.

**Telescopes and Periscopes (1011.8)** Eyepieces on telescopes and periscopes shall be 43 inches (1090 mm) minimum and 51 inches (1295 mm) maximum above the ground surface.

### **GUIDELINES FOR VIEWING AREAS (1015)**

- A clear ground space shall be provided at each distinct viewing location. The clear ground space shall be 36 inches (915 mm) minimum by 48 inches (1220 mm) minimum, and shall be positioned for either forward or parallel approach to the viewing location. One full unobstructed side of the clear ground space shall adjoin or overlap an outdoor recreation access route or trail, as applicable, or another clear ground space.
- An unobstructed view shall be provided between 32 inches (815 mm) and 51 inches (1295 mm) above the clear ground space at each distinct viewing location that extends the entire side of the clear ground space facing the landscape or point of interest.
- A turning space complying with 304.3 shall be provided within viewing areas
- The surface of clear ground spaces and turning spaces shall be firm and stable.
- The slope of the clear ground space and turning space surface shall not be steeper than 1:48 in any direction.

## C. ADA -OUTDOOR DEVELOPED AREAS CTD.

### GUIDELINES FOR OUTDOOR RECREATION ACCESS ROUTES (1016)

There are three (3) exceptions to the requirements in this section under alterations, for viewing areas and where access routes are provided within vehicular ways. Refer to the code for more details.

The surface of outdoor recreation access routes and their related passing spaces and resting intervals shall be firm and stable.

The clear width of outdoor recreation access routes shall be 36 inches (915 mm) minimum.

Outdoor recreation access routes with a clear width less than 60 inches (1525 mm) shall provide passing spaces complying with 1016.4 at intervals of 200 feet (61 m) maximum. Passing spaces and resting intervals shall be permitted to overlap.

The passing space shall be either:

1. A space 60 inches (1525 mm) minimum by 60 inches (1525 mm) minimum; or
2. The intersection of two outdoor recreation access routes providing a T-shaped space complying with 304.3.2 where the base and the arms of the T-shaped space extend 48 inches (1220 mm) minimum beyond the intersection. Vertical alignment at the intersection of the outdoor recreation access routes that form the T-shaped space shall be nominally planar.

**Concrete, Asphalt, or Boards (1016.5.1)** Where the surface is concrete, asphalt, or boards, obstacles shall not exceed ½ inch (13 mm) in height measured vertically to the highest point.

**Other Surfaces (1016.5.2)** Where the surface is other than specified in 1016.5.1, obstacles shall not exceed 1 inch (25 mm) in height measured vertically to the highest point.

**Openings (1016.6)** Openings in the surface of outdoor recreation access routes and their related passing spaces and resting intervals shall comply with 302.3. Drainage grates should be located where possible outside the minimum clear width of the outdoor recreation access route.

**Running Slope (1016.7.1)** The running slope of any segment of an outdoor recreation access route shall not be steeper than 1:10. Where the running slope of a segment of an outdoor recreation access route is steeper than 1:20, the maximum length of the segment shall be in accordance with Table 1016.7.1, and a resting interval complying with 1016.8 shall be provided at each end of the segment.

Steeper than	But not steeper than	Max Length of Segment
1:20 (5%)	1:12 (8.33%)	50 feet (15 m)
1:12 (8.33%)	1:10 (10%)	30 feet (9 m)

### **Cross Slope (1016.7.2)**

- **Concrete, Asphalt, or Boards (1016.7.2.1)** Where the surface is concrete, asphalt, or boards, the *cross slope* shall not be steeper than 1:48.
- **Other Surfaces (1016.7.2.2)** Where the surface is other than specified in 1016.7.2.1, the *cross slope* on other surfaces shall not be steeper than 1:33.

### **Resting Intervals (1016.8)**

The resting interval length shall be 60 inches (1525 mm) long minimum. The width should be at least as wide as the widest segment of the outdoor recreation access route leading to the resting interval. Where resting intervals are provided adjacent to an outdoor recreation access route, the resting interval clear width shall be 36 inches (915 mm) minimum. The slope for concrete, asphalt, or boards, should not be steeper than 1:48 in any direction. When the surface is other than specified in 1016.8.3.1, the slope on other surfaces shall not be steeper than 1:33 in any direction. The turning space should be 60" and the vertical alignment between the access route, turning space and resting interval shall be nominally planar.

## C. ADA -OUTDOOR DEVELOPED AREAS CTD.

### GUIDELINES FOR TRAILS (1017)

Trails that have been determined that conditions defined in 1019 do not permit full compliance on a portion of a trail or the entire trail will exempt the project from full or partial compliance. Determination is made on a case-by-case basis. The exception shall be documented and the documentation shall be maintained.

**Surface (1017.2)** The surface of *trails* and their related passing *spaces* and resting intervals shall be firm and stable.

**Clear Tread Width (1017.3)** The clear tread width of *trails* shall be 36 inches (915 mm) minimum.

**Passing Spaces (1017.4)** Trails with a clear tread width less than 60 inches (1525 mm) shall provide passing spaces complying with 1017.4 at intervals of 1000 feet (300 m) maximum. Where the full length of the trail does not comply with 1017, the last passing space shall be located at the end of the trail segment complying with 1017. Passing spaces and resting intervals shall be permitted to overlap.

- **Size (1017.4.1)** The passing *space* shall be either:
  1. A *space* 60 inches (1525 mm) minimum by 60 inches (1525 mm) minimum; or
  2. The intersection of two *trails* providing a T-shaped *space* complying with 304.3.2 where the base and the arms of the T-shaped *space* extend 48 inches (1220 mm) minimum beyond the intersection. Vertical alignment at the intersection of the *trails* that form the T-shaped *space* shall be nominally planar.

**Obstacles (1017.5)** Tread obstacles on *trails* and their related passing *spaces* and resting intervals shall comply with 1017.5.

**Concrete, Asphalt, or Boards (1017.5.1)** Where the surface is concrete, asphalt, or boards, tread obstacles shall not exceed  $\frac{1}{2}$  inch (13 mm) in height measured vertically to the highest point.

**Other Surfaces (1017.5.2)** Where the surface is other than specified in 1017.4.1, tread obstacles shall not exceed 2 inches (50 mm) in height measured vertically to the highest point.

**Openings (1017.6)** Openings in the surface of *trails* and their related passing *spaces* and resting intervals shall comply with 302.3.

- **EXCEPTION:** Openings shall be permitted to be to be a size that does not permit passage of a  $\frac{3}{4}$  inch (19 mm) sphere where openings that do not permit the passage of a  $\frac{1}{2}$  inch (6.4 mm) sphere cannot be provided due to the conditions in 1019.

**Slopes (1017.7)** The slopes of *trails* shall comply with 1017.7.

**Running Slope (1017.7.1)** No more than 30 percent of the total length of a *trail* shall have a *running slope* steeper than 1:12. The *running slope* of any segment of a *trail* shall not be steeper than 1:8. Where the *running slope* of a segment of a *trail* is steeper than 1:20, the maximum length of the segment shall be in accordance with Table 1017.7.1, and a resting interval complying with 1017.8 shall be provided at each end of the segment.

Steeper than	But not steeper than	Max Length of Segment
1:20 (5%)	1:12 (8.33%)	50 feet (15 m)
1:12 (8.33%)	1:10 (10%)	30 feet (9 m)
1:10	1:8 (12.5%)	10 feet (3050 m)

**Cross Slope (1017.7.2)** Same as in section 1016

**Resting Intervals (1017.8)** Resting intervals shall comply with 1017.8.

- **Length (1017.8.1)** The resting interval length shall be 60 inches (1525 mm) long minimum.
- **Width (1017.8.2)** Where resting intervals are provided within the *trail* tread, resting intervals shall be at least as wide as the widest segment of the *trail* tread leading to the resting interval. Where resting intervals are provided adjacent to the *trail* tread, the resting interval clear width shall be 36 inches (915 mm) minimum.
- **Slope (1017.8.3)** Resting intervals shall have a slope complying with 1017.8.3.
- **1017.8.3.1 Concrete, Asphalt, or Boards.** Where the surface is concrete, asphalt, or boards, the slope shall not be steeper than 1:48 in any direction.
- **1017.8.3.2 Other Surfaces.** Where the surface is other than specified in 1017.8.3.1, the slope on other surfaces shall not be steeper than 1:20 in any direction.

**Trail Signs (1017.11)** *Trail* signs shall include the following information:

1. Length of the *trail* or *trail* segment;
2. Surface type;
3. Typical and minimum tread width;
4. Typical and maximum *running slope*; and
5. Typical and maximum *cross slope*.

## C. ADA -OUTDOOR DEVELOPED AREAS CTD.

### CONDITIONS FOR EXCEPTIONS (1019)

#### Conditions (1019.2)

1. Compliance is not feasible due to terrain.
2. Compliance cannot be accomplished with the prevailing construction practices.
3. Compliance would fundamentally alter the function or purpose of the facility or the setting.
4. Compliance is precluded by the:
  - Endangered Species Act (16 U.S.C. §§ 1531 et seq.);
  - National Environmental Policy Act (42 U.S.C. §§ 4321 et seq.);
  - National Historic Preservation Act (16 U.S.C. §§ 470 et seq.);
  - Wilderness Act (16 U.S.C. §§ 1131 et seq.); or
  - Other Federal, State, or local law the purpose of which is to preserve threatened or endangered species; the environment; or archaeological, cultural, historical, or other significant natural features.

# D. DDOT COMPLETE STREETS PROGRAM

In October 2010, the District Department of Transportation (DDOT) issued a new Complete Streets Policy that will guide the development, execution and evaluation of future DDOT projects. All transportation and other public space projects shall accommodate and balance the choice, safety, and convenience of all users of the transportation system and directs DDOT employees to give equal weight to pedestrians, bicyclists and transit users as well as motorists.

This policy really formalizes the changes at DDOT to ensure all modes of transportation are equally represented. This approach is critical to ensure that the streets of Washington, DC are safe for everyone and to create more livable and sustainable communities.

The Complete Streets Policy was one of the goals set out in DDOT's 2-year Action Agenda [PDF], which was released in February. The full text of the policy is below and will also be posted on DDOT's website at [ddot.dc.gov](http://ddot.dc.gov).

## Complete Streets Policy

The District's transportation network as a whole shall accommodate the safety and convenience of all users, recognizing that certain individual corridors have modal priorities. While these priorities should remain and be encouraged along specific corridors, connectivity throughout the network for users of all modes is essential. Examples of modal priorities include, but are not limited to, residential streets, green streets, school routes, and corridors that are important to transit, freight, commuter traffic, and retail;

All transportation projects shall reflect the land-use, transportation, and green space needs of the city-wide transportation network, be sensitive to its various contexts, and should improve, not diminish, network connectivity;

All transportation and other public space projects shall accommodate and balance the choice, safety, and convenience of all users of the transportation system including pedestrians, users with disabilities, bicyclists, transit users, motorized vehicles and freight carriers, and users with unique situations that limit their ability to use specific motorized or non-motorized modes to ensure that all users can travel safely, conveniently and efficiently within the right of way; Pedestrian, bike, and transit Level of Service (LOS), in addition to vehicle measurements, shall be evaluated to ensure proposed alternatives balance, as appropriate, the needs of all users of the right of way.

The planner or designer shall calculate and design for an appropriate combination of LOS that accommodates all users; the planner and designer shall also refer to previously established plans to ensure consistency;

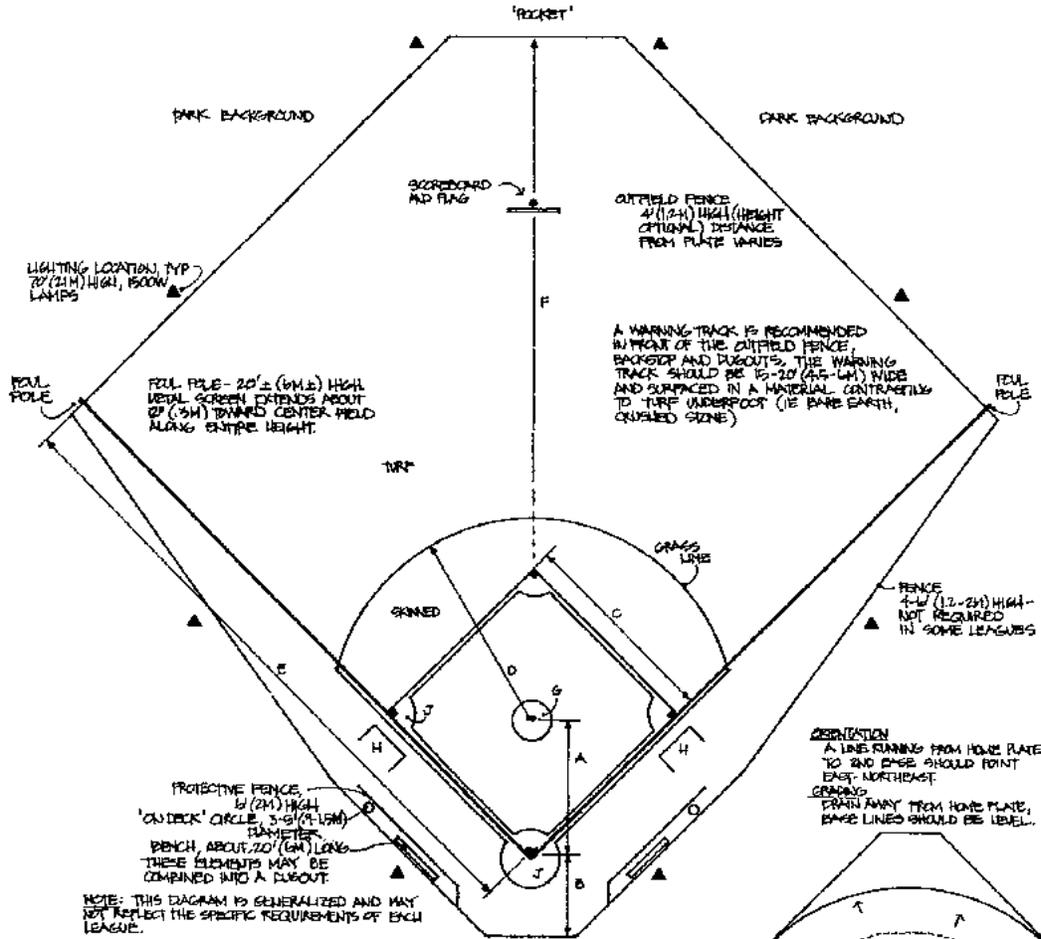
Wherever possible, projects should help DDOT achieve goals as set by the Action Agenda or subsequent strategic plan; Improvements to the right of way shall consider environmental enhancements including, but not limited to: reducing right-of-way storm water run-off, improving water quality, prioritizing and allocating sustainable tree space and planting areas (both surface and subsurface), reusing materials and/or using recycled materials, and promoting energy conservation and efficiency wherever possible.

## Complete Streets Procedures

The aforementioned policies shall be employed in all transportation planning, design, review, operations, major maintenance projects (such as milling and overlay), new construction and reconstruction projects, except where prohibited by federal and District law (such as interstates, non-motorized trails);

Routine daily maintenance and operation activities (such as potholes and cracked ceilings) are specifically exempt from this Policy. Any other exceptions require written justification, documentation, and approval by the DDOT Director or Delegate. Exceptions may be granted based upon documented safety issues, excessive cost, or absence of need.

# E. SOFTBALL FIELD DIMENSIONS



	SOFTBALL			BASEBALL					
	14' SLOW PITCH	16' FAST PITCH	18' SLOW PITCH	LITTLE LEAGUE	MINOR LEAGUE	JOV. LEAGUE	MAJOR LEAGUE	COLT LEAGUE	NCAA
A. PITCHING DISTANCE *	58	44(46)	44(50)	46	48	54	60.5	60.5	60.5
B. HOME PLATE TO BACKSTOP	114(125)	25-34	25-30	25 <sup>1</sup>	30	40	60 <sup>2</sup>	60	60
C. BASELINE	55(60)	60	60	60	70	80	90	90	90
D. RADIUS OF SKINNED AREA <sup>B</sup>	70	60	60	50	66	80	96	95	95
E. FULL LINE	280 (300)	275 (300)	325 (350)	200	176	250	250 <sup>A</sup>	300	330
F. HOME PLATE TO 'ROCKET'	250	275 (300)	225	250 <sup>1</sup>	225	300	400	350	400
G. DIAMETER - PITCHER'S MOUND	16	8	8	10 <sup>3</sup>	12 <sup>3</sup>	15 <sup>4</sup>	18 <sup>5</sup>	18 <sup>7</sup>	10 <sup>7</sup>
H. SIZE OF COACHES' BOX	3x15	3x15	3x15	4x18	6x12	8x16	10x20	10x20	5x20
I. DIAMETER - BASES	30	20	30	18	24	24	24	24	26

ALL MEASUREMENTS ARE IN FEET. WOMEN'S DIMENSIONS, IF DIFFERENT, ARE IN PARENTHESES.

- NOTES**
1. OPTIONAL DISTANCE
  2. 40' SATISFACTORY, 60' PREFERRED
  3. 320' SATISFACTORY, 350' PREFERRED
  4. 200' TO OUTFIELD FENCE
  5. PITCHER'S MOUND RAISED 6"
  6. PITCHER'S MOUND RAISED 8"
  7. PITCHER'S MOUND RAISED 10"
  8. MEASURED FROM FRONT CENTER OF PITCHER'S RUBBER.

Figure 520-33 Softball/baseball layout.

520-11

## F. PLANTS TO CONSIDER

The following table presents tree species (evergreen trees, deciduous trees, and shrubs) that AFRH can use to diversify its treescape at AFRH-W. This table is a revised version of the plant list recommended in the Pitchford tree survey of AFRH-W in 2007. Some species have eliminated based on considerations related to commercial availability, maintenance, and durability. The list has also been expanded to include additional species that would be appropriate for the campus and would add variety and interest to the existing vegetation. The dates included in the table indicate the year when each species was introduced or cultivated in the United States. All these tree species pre-date the Lincoln Cottage and the establishment of the Home.

Trees - Plant List - Washington DC - AFRH			
Scientific Name	Common Name	Native/Adapted	Remarks
Evergreen Trees			
<i>Cedrus atlantica</i>	Atlas Cedar	Adapted	40'-60' H x 30'-40' W, conical in youth, spreading with age, blue-green in color, prefers well drained soils, growth rate - slow, specimen tree., introduced 1840.
<i>Cedrus deodara</i>	Deodar Cedar	Adapted	40'-70' H x 30'-40' W, or larger, specimen, growth rate - medium, light blue to grayish green, broadly pyramidal, introduced in 1831.
<i>Ilex aquifolium</i>	English Holly	Adapted	Good evergreen for screening; available and fairly common in the Middle Atlantic Region of the US, lustrous dark green leaves, used in hedge rows, as understory plants and topiary forms. 1850-1874
<i>Picea pungens</i>	Colorado Spruce	Native	30'-60'H x 10'x20' W, gray-green to blue-green needles, slow-medium growth, dense, narrow to broadly pyramid with horizontal stiff branches, rich moist soil, full sun, introduced 1862.
<i>Pinus bungeana</i>	Lacebark Pine	Adapted	Good specimen and screening tree, 30'-50' tall x 20'-35' W, slow growing, valued for striking, showy bark, keeps branches near ground. from China introduced 1846
<i>Pinus taeda</i>	Loblolly Pine	Native	60'-90' H x 40'-60' W, fast growing, loses lower branches with age, pine needles 10" long, needle drop forms own pine straw mulch, easily transplanted, introduced 1713.
Deciduous Trees			
<i>Acer saccharum</i>	Sugar Maple	Native	A slow growing, dense crown, dark green in summer, yellow with reds in late fall into November. Recommend variety 'Legacy' for more drought and heat resistance. Prefers slightly acid soil. Introduced in 1753.
<i>Aesculus pavia</i>	Red Buckeye	Native	A small clump-forming, round-topped shrub or small tree, reaching 10'-20' or more, red flowers loved by humming birds, prefers part shade, and moist soils. Introduced in 1711.
<i>Betula nigra</i> 'Dura Heat'	Dura heat River Birch	Native	Good for winter, moist areas, native introduced 1736
<i>Carpinus betulus</i>	European Hornbeam or Common Hornbeam	Adapted	Large lawn or street tree, slow - med. Growth rate, 40'-60' H x 30'-40' W, leaves dark green in summer, yellow in fall, turns late in the fall, diseases none, many cultivars and shapes.
<i>Cercis canadensis</i>	Eastern Redbud	Native	20'-30' H x 25'-35'W small tree, spreading flat-topped, leaves are heart shaped, new growth is reddish purple, flowers start reddish purple changing to pink. Long seed pods are formed that turn brown and hang from the tree. Fall leaves are yellow. Cultivated in 1641.

## F. PLANTS TO CONSIDER CTD.

Trees - Plant List - Washington DC - AFRH			
Scientific Name	Common Name	Native/Adapted	Remarks
<i>Chionanthus virginicus</i>	Fringe Tree	Native	12'-15' H&W, Small tree, blooms after dogwoods with white fringe flowers, First introduced by Ben Franklin; available and fairly common in the Middle Atlantic Region of the US, 1850-1874
<i>Cladrastis kentukea</i>	American Yellowwood	Native	Large lawn specimen tree, med. - fast Growth rate, 30'-50' H & W, leaves open bright yellow changing to bright green in summer, yellow in fall, flowers in the summer, few diseases, wood is yellow. Makes a nice shade tree. Prune only in summer. Introduced in 1812.
<i>Cornus Florida</i>	Dogwood	Native	Native, available and fairly common in the Middle Atlantic Region of the US, 1850-1874
<i>Cotinus coggygria</i>	Smoke Tree	Native	Available and fairly common in the Middle Atlantic Region of the US, 1850-1874; More like a large shrub. Cotinus are outstanding specimens in a shrub border, and are a great choice for massing or for hedges.
<i>Koelreuteria paniculata</i>	Golden rain tree	Adapted	Available and fairly common in the Middle Atlantic Region of the US, Introduced in 1763
<i>Lagerstroemia fauriei</i>	Crape Myrtle	Adapted	The Fauriei crosses are the most disease resistant of all the crape myrtles, summer flowering trees, minimum bloom 30 days, maximum bloom 120 days depending on cultivar, 1850-1874
<i>Lirodendron tilipifera</i>	Tuliptree or Tulip Poplar	Native	70'-90'H x 35'-50' W, somewhat pyramidal maturing to oval-rounded, fast growing, gray-brown bark, Leaves bright green in summer to yellow in fall, flowers large greenish yellow, May to June, full sun, cultivated in 1663.
<i>Magnolia stellata</i>	Star Magnolia	Adapted	15'-20' H x 10'-15' W, dense oval or small tree, flowers before the leaves appear with white, fragrant, 12-18 strap like petals in late February or early March, leaves are dark green in summer & yellow to bronze in fall, introduced in 1862.
<i>Magnolia virginiana</i>	Sweetbay Magnolia	Native	Sweet smelling flowers, narrow growth, available and fairly common in the Middle Atlantic Region of the US, 1850-1874
<i>Nyssa sylvatica</i>	Black Tupelo	Native	30'-50' H x 20'-30' W, Pyramidal when young, forming a spreading, irregularly rounded or flat-topped crown, has a tap root, leaf - dk. Green in summer, fall - fluorescent yellow to orange to scarlet to purple, full sun or part shade, specimen or street tree. introduced 1750.
<i>Ostrya virginiana</i>	American Hophorn-beam or Ironwood	Native	Introduced 1690, good lawn tree, often found in dry, gravelly soils, plant in early spring, small tree, 25'-40' Ht.
<i>Platanus occidentalis</i>	Sycamore or American Planetree	Native	75'-100' H & W, Red to gray-brown scaly bark near base, exfoliating on upper trunk exposing white to creamy white layers, large massive trunk, leaf color dk. Green in summer, fall brown, found near river banks, streams, ponds, introduced 1640.

Trees - Plant List - Washington DC - AFRH

Scientific Name	Common Name	Native/Adapted	Remarks
Thuja occidentalis	Eastern Arborvitae	Native	40'-60' H x 10'-15' usually less, broadly-pyramidal tree with a single trunk, branches to the ground, flat bright green in summer, select cultivars that remain green thru the winter. Introduced in 1536.
Salix babylonica	Weeping Willow	Native	30'-40' H & W, graceful refined tree, weeping branches, light green leaves, introduced in 1730.
Styrax Japonicus	Japanese Snowbell	Adapted	Small maturing tree, 20'-30' H, med. Growth rate, low branching, med. Dk. Green leaf in summer, yellowish or reddish in fall, slightly fragrant bell shaped white flowers that hang down in May - June, needs supplemental water in summer. 'Emeralds Pagoda' has greater heat tolerance. Introduced 1862.
Tilia americana	American Linden	Native	60'-80' H x 1/2 to 1/3 ht. For spread, tall stately tree, excellent shade tree, transplants readily, prefers deep moist fertile soils, but will grow on drier, heavier soils, great for the large landscape. Fragrant small flowers in June. Underside of leaves pale green Introduced in 1752.
Ulmus parvifolia	Chinese Elm or Lacebark Elm	Adapted	The American Elm has been decimated by Dutch Elm Disease. The tree is rarely found. The Chinese Elm makes an excellent substitute. 40'-50' H&W, mottled bark similar to military camouflage uniforms. Leaf red-purple in fall. A great specimen or street tree. Several excellent cultivars. Introduced 1794.

Shrubs

Scientific Name	Common Name	Native/Adapted	Remarks
Abelia x grandiflora	Glossy Abelia	Adapted	Evergreen, 3'-6' H & W, spreading dense mound, medium to fast growth rate, small flowers white flushed with pink, fragrant, sepals remain into late summer, shade and sun tolerant, several cultivars, hard pruning in late winter, introduced in 1886. Used in many places on campus.
Aesculus parviflora	Bottlebrush Buckeye	Native	Deciduous, 8'-12' H x 8'-15' W, wide spreading, multi-trunked shrub, flowers in June - July with white flowers, handsome specimen plant, very attractive massed and used under shade trees. Native, introduced 1785
Buddleia	Butterfly Bush	Adapted	Introduced from China 1890; though brought a bit later into use than the Civil War era, probably the best shrub to attract butterflies. "Black Knight" has dark purple flowers and is hardier than many other cultivars.

## F. PLANTS TO CONSIDER CTD.

Trees - Plant List - Washington DC - AFRH			
Scientific Name	Common Name	Native/Adapted	Remarks
Callicarpa americana	American Beautyberry	Native	Deciduous, 6'-8' H & W, Best if used in mass, spectacular purple berry color with yellow leaves in October.
Camellia sasanqua	Sasanqua Camellia	Adapted	Evergreen, 6'-10' H&W, densely branched, pyramidal to oval-rounded shrub, blooms in the late fall to December depending on the variety, multiple colors of blooms depending on cultivar, introduced in 1811.
Chamaecyparis thyoides	Atlantic falsecypress	Native	Evergreen, Ranges from a columnar tree to small shrub. Covered with thick feathery sprays, color green to blue-green, some cultivars turn purple in winter. Does well in wet sites. Introduced in 1727.
Clethra alnifolia	Summersweet Clethra or Sweet Pepperbush	Native	Deciduous, 4'-8' H x 4'-6' W, slow to medium growth rate, leaf pale yellow to golden brown in fall, flower- white fragrant, July - August 6-8 weeks may reach 8"-12" long, likes moist, acid soil, Introduced 1731.
Euonymus alatus compactus	Compact Winged Euonymus/ Burning Bush	Adapted	Deciduous, 8'-10' H, Large shrub; good hedge/screening; brilliant red fall color. Introduced around 1860.
Fothergilla gardenii	Dwarf Fothergilla	Native	Deciduous, 2'-3' H & W, small shrub, slender, crooked rounded in outline, leaf color dk. Green, fall color brilliant yellow - orange - scarlet; flower white, fragrant honey scented, likes acid, peaty, sandy loam, introduced 1765.
Forsythia x intermedia	Border Forsythia	Adapted	Deciduous, 8'-10' H x 8'-12' W, Yellow flowers in early spring, fast growth rate, use for bank plantings and massing, full sun, some varieties introduced 1845.
Kalmia latifolia	Mountain-laurel	Native	Evergreen, 7'-15' H & W, or taller, large symmetrical shrub, growth slow, flowers white to pink-rose to deep rose, requires acid, cool moist, well-drained soil, sun to deep shade, use in naturalizing, numerous cultivars, introduced 1734.
Hydrangea aborescens	Smooth Hydrangea	Native	3'-5' H & W, low growing, rounded shrub, dk, green in summer, most falls turn brown, sometimes lemon yellow. Flowers white, June - September, 4" - 6" across, remove before they turn brown, cut back to the ground in late fall. Introduced in 1736.
Hydrangea quercifolia	Oakleaf Hydrangea	Native	4'-8' H & W, spreads with suckers, slow growth rate, upright & irregular, red, orangish brown & purple in the fall, large white flowers that change color toward the fall to purplish pink, sun or part shade, introduces in 1803.

Trees - Plant List - Washington DC - AFRH			
Scientific Name	Common Name	Native/Adapted	Remarks
Ilex decidua	Possumhaw	Native	Deciduous holly, 20'-30' H & W in the wild, slow growth, oval or rounded form, dk. Gr. Leaves in summer, red berry-like drupes along the stems in winter, dk. Gray stems, Large masses are outstanding, can grow under trees. introduced in 1760.
Ilex glabra	Inkberry Holly	Native	Evergreen, 6'-8' H x 8'-10' W, upright, rounded shrub, slow growth rate, forms suckers, dk. Green in summer, flowers in late May and is a nectar source for bees. Numerous cultivars. Introduced in 1759.
Ilex verticillata	Common Winterberry	Native	Deciduous holly, 6'-10' H & W, slow growth, oval or rounded form, dk. Gr. Leaves in summer, red berry-like drupes along the stems in winter, introduced in 1736.
Ilex vomitoria	Yaupon Holly	Native	Evergreen, 15'-20' H & less in spread, stems light gray, leaves 1/2" to 1 1/2" similar to boxwood and crenate holly, stiff in form, upright and somewhat irregular, translucent, scarlet drupes (berries), numerous cultivars, introduced 1700.
Ilex vomitoria 'Nana'	Dwarf Yaupon Holly	Native	Evergreen, 3'-5' H x twice wide, stems light gray, leaves 1/2" to 1 1/2" similar to boxwood and crenate holly, stiff in form, more rounded, translucent, scarlet drupes (berries), numerous cultivars, introduced 1700.
Ilex vomitoria 'Pendula'	Weeping Yaupon Holly	Native	Evergreen, 10' H x 3'-5' wide, stems light gray, leaves 1/2" to 1 1/2" similar to boxwood and crenate holly, weeping form, translucent, scarlet drupes (berries), introduced 1700.
Lindera-benzoin	Spicebush	Native	6'-12' H & W, Good shrub for moist areas; introduced 1880. Host plant for swallowtail butterfly caterpillars.
Rhododendron catawbiense	Catawba Rhododendron	Native	Evergreen, 6'-10' H x 5'- 8' W, growth rate slow, heavy shrub, dense foliage to the ground flowers large 5"-6" dia., purples-rose-pink-white, in late May. Plant in part shade and out of winter sun. Many cultivars, Introduced in 1809.
Rhododendron & azalea hybrids	Rhododendron & azalea hybrids	Native	American nurseries have been breeding azalea and rhododendrons to reduce disease, improve flower form and color for over 100 years. There are hundreds of hybrids to choose from. Choose the best form and size for the location.
Rhus-aromatica	Fragrant Low Gro Sumac	Native	Low growing ground cover; good for slopes/banks; introduced 1759.
Rosa banksiae 'Lutea'	Lady Banks' Rose	Adapted	A common occurrence in southern gardens from (1850 to 1900). The rose is a sprawling climber up to 15' long. Thornless, blooms with small yellow or white roses April to June, no fragrance. Full sun to part shade.

## F. PLANTS TO CONSIDER CTD.

Trees - Plant List - Washington DC - AFRH			
Scientific Name	Common Name	Native/Adapted	Remarks
<i>Syringa reticulata</i>	Japanese Tree Lilac	Adapted	Great fragrance, attracts hummingbirds and butterflies; introduced 1876. Hardest variety, but need to be aware of mold/disease problems which can occur if planted
<i>Syringa vulgaris</i>	Common Lilac	Adapted	Deciduous, 8'-15' H x 6'-12' W, a favorite of the residents, favored for the flowers, extremely fragrant in April, enjoy cutting branches of flowers and making arrangements inside. Place plants in a sunny location with good air flow, highly susceptible to sooty mold. Not interesting any other time of the year. Cultivated 1563.
<i>Taxus cuspidata</i>	Japanese Yew	Adapted	Evergreen, 10'-40' H x greater W, depending on cultivar, slow growth rate, dense root system, likes sandy loam soil, superior conifer in shade, also does well in sun, new growth is yellow-green, prune every other year by removing long stems. Introduced 1853.
<i>Viburnum carlesii</i>	Koreanspice-viburnum	Adapted	Deciduous, 4'-5' H x 4'-8' W, dull green leaves, may turn red in the fall, flowers pink to reddish in bud, opening white, sent similar to Daphne, Intoxicating fragrance, introduced from Korea 1812.
<i>Viburnum plicatum</i> var. <i>tomentosum</i>	Doublefile Viburnum	Adapted	Deciduous, 8'-10' H x 9'-12' W, Horizontal, tiered branching, white, no fragrance flowers lay on top of the branches in May, leaves are dark green turning to reddish purple in the fall. Introduced in 1844.

## References:

- Manual of Woody Landscape Plants, Michael A. Dirr
- [www.finegardening.com/plantguide](http://www.finegardening.com/plantguide)
- Peggy Cornett | Curator of Plants at Monticello Thomas Jefferson Foundation, Inc.

# G. PLANTS TO AVOID

## Poisonous Plants

(Source: National Capital Poison Center, <http://www.poison.org/prevent/plants.asp>; Please note that images of these plants can be found on the website)

This is not a complete list but includes some of the more common species that can be found in a residential environment.

Common Name	Botanical Name
Azalea, rhododendron*	<i>Rhododendron</i>
Caladium*	<i>Caladium</i>
Castor bean	<i>Ricinis communis</i>
Daffodil*	<i>Narcissus</i>
Deadly nightshade	<i>Atropa belladonna</i>
Dumbcane* (prevents speech)	<i>Dieffenbachia</i>
Elephant Ear	<i>Colocasia esculenta</i>
Foxglove	<i>Digitalis purpurea</i>
Fruit pits and seeds	contain: cyanogenic glycosides
Holly*	<i>Ilex</i>
Iris*	<i>Iris</i>
Jerusalem cherry	<i>Solanum pseudocapsicum</i>
Jimson weed	<i>Datura stramonium</i>
Lantana*	<i>Lantana camara</i>
Lily-of-the-valley	<i>Convallaria majalis</i>
Mayapple	<i>Podophyllum peltatum</i>
Mistletoe*	<i>Viscum album</i>
Morning glory	<i>Ipomoea</i>
Mountain laurel	<i>Kalmia latifolia</i>
Nightshade	<i>Solanum spp.</i>
Oleander	<i>Nerium oleander</i>
Peace lily* (nickname Spaths)	<i>Spathiphyllum</i>
Philodendron*	<i>Philodendron</i>
Pokeweed	<i>Phytolacca americana</i>
Pothos*	<i>Epipremnum aureum</i>
Yew	<i>Taxus</i>

- Has the potential to be a house plant or used in a floral arrangement. Prohibit the poisonous versions to be delivered to or used in the Memory Unit.

## F. PLANTS TO AVOID CTD.

### **Mushrooms**

Any amount of any wild mushroom is considered to be very dangerous. Please call the Poison Center immediately if anyone ingests any part of a mushroom picked from a yard or the woods. If you have any pieces of the actual mushroom that was eaten you will be asked to save it in a brown paper bag. Many mushrooms can look identical but be very different.

Remember the phrase: *There are bold mushroom hunters and there are old mushroom hunters, but there are no old bold mushroom hunters. --- A wise person*

## Allergen Plants

### Significant Allergens for Washington, DC in Spring

#### Trees

[Atlantic Poison-Oak \(\*Toxicodendron pubescens\*\)](#)  
[Bitter-Nut Hickory \(\*Carya cordiformis\*\)](#)  
[Black Ash \(\*Fraxinus nigra\*\)](#)  
[Black Oak \(\*Quercus velutina\*\)](#)  
[Black Walnut \(\*Juglans nigra\*\)](#)  
[Black Willow \(\*Salix nigra\*\)](#)  
[Blackjack Oak \(\*Quercus marilandica\*\)](#)  
[Box Elder, Ash-Leaf Maple \(\*Acer negundo\*\)](#)  
[Carolina Willow \(\*Salix caroliniana\*\)](#)  
[Chestnut Oak \(\*Quercus prinus\*\)](#)  
[Crack Willow \(\*Salix fragilis\*\)](#)  
[Dwarf Chinkapin Oak \(\*Quercus prinoides\*\)](#)  
[Eastern Poison-Ivy \(\*Toxicodendron radicans\*\)](#)  
[Eastern Red-Cedar \(\*Juniperus virginiana\*\)](#)  
[European Privet \(\*Ligustrum vulgare\*\)](#)  
[Green Ash \(\*Fraxinus pennsylvanica\*\)](#)  
[Mockernut Hickory \(\*Carya alba\*\)](#)  
[Northern Red Oak \(\*Quercus rubra\*\)](#)  
[Northern White Oak \(\*Quercus alba\*\)](#)  
[Paper-Mulberry \(\*Broussonetia papyrifera\*\)](#)

[Pignut Hickory \(\*Carya glabra\*\)](#)  
[Pin Oak \(\*Quercus palustris\*\)](#)  
[Post Oak \(\*Quercus stellata\*\)](#)  
[Pumpkin Ash \(\*Fraxinus profunda\*\)](#)  
[Purple Willow \(\*Salix purpurea\*\)](#)  
[Red Mulberry \(\*Morus rubra\*\)](#)  
[Scarlet Oak \(\*Quercus coccinea\*\)](#)  
[Shag-Bark Hickory \(\*Carya ovata\*\)](#)  
[Shell-Bark Hickory \(\*Carya laciniosa\*\)](#)  
[Shingle Oak \(\*Quercus imbricaria\*\)](#)  
[Shumard's Oak \(\*Quercus shumardii\*\)](#)  
[Silky Willow \(\*Salix sericea\*\)](#)  
[Southern Red Oak \(\*Quercus falcata\*\)](#)  
[Swamp White Oak \(\*Quercus bicolor\*\)](#)  
[Water Oak \(\*Quercus nigra\*\)](#)  
[White Ash \(\*Fraxinus americana\*\)](#)  
[White Mulberry \(\*Morus alba\*\)](#)  
[White Walnut \(\*Juglans cinerea\*\)](#)  
[White Willow \(\*Salix alba\*\)](#)  
[Willow Oak \(\*Quercus phellos\*\)](#)

#### Weeds

[Annual Ragweed \(\*Ambrosia artemisiifolia\*\)](#)  
[Black Mustard \(\*Brassica nigra\*\)](#)  
[Cabbage \(\*Brassica oleracea\*\)](#)  
[Chinese Mustard \(\*Brassica juncea\*\)](#)  
[Great Ragweed \(\*Ambrosia trifida\*\)](#)  
[Halberd-Leaf Orache \(\*Atriplex patula\*\)](#)

[Oldwoman \(\*Artemisia stelleriana\*\)](#)  
[Pennsylvania Pellitory \(\*Parietaria pensylvanica\*\)](#)  
[Rape \(\*Brassica rapa\*\)](#)  
[Smooth Amaranth \(\*Amaranthus hybridus\*\)](#)  
[Spiny Amaranth \(\*Amaranthus spinosus\*\)](#)

#### Grasses

[Bermuda Grass \(\*Cynodon dactylon\*\)](#)  
[Clustered Fescue \(\*Festuca paradoxa\*\)](#)  
[Common Timothy \(\*Phleum pratense\*\)](#)  
[Elliott's Bent \(\*Agrostis eliottiana\*\)](#)  
[Large Sweet Vernal Grass \(\*Anthoxanthum odoratum\*\)](#)

[Nodding Fescue \(\*Festuca subverticillata\*\)](#)  
[Orchard Grass \(\*Dactylis glomerata\*\)](#)  
[Perennial Rye Grass \(\*Lolium perenne\*\)](#)  
[Red Fescue \(\*Festuca rubra\*\)](#)  
[Soft Brome \(\*Bromus hordeaceus\*\)](#)  
[Winter Bent \(\*Agrostis humilis\*\)](#)

## F. PLANTS TO AVOID CTD.

### Significant Allergens for Washington, DC in Summer

#### Trees

Atlantic Poison-Oak (*Toxicodendron pubescens*)  
Black Ash (*Fraxinus nigra*)  
Black Walnut (*Juglans nigra*)  
Black Willow (*Salix nigra*)  
Border Privet (*Ligustrum obtusifolium*)  
California Privet (*Ligustrum ovalifolium*)  
Carolina Willow (*Salix caroliniana*)

Crack Willow (*Salix fragilis*)  
Eastern Poison-Ivy (*Toxicodendron radicans*)  
European Privet (*Ligustrum vulgare*)  
Groundseltree (*Baccharis halimifolia*)  
Paper-Mulberry (*Broussonetia papyrifera*)  
Red Mulberry (*Morus rubra*)  
White Mulberry (*Morus alba*)  
White Walnut (*Juglans cinerea*)

#### Weeds

Annual Ragweed (*Ambrosia artemisiifolia*)  
Annual Wormwood (*Artemisia annua*)  
Black Mustard (*Brassica nigra*)  
Cabbage (*Brassica oleracea*)  
Chinese Mustard (*Brassica juncea*)  
Common Wormwood (*Artemisia vulgaris*)  
Great Ragweed (*Ambrosia trifida*)  
Groundseltree (*Baccharis halimifolia*)

Halberd-Leaf Orache (*Atriplex patula*)  
Mat Amaranth (*Amaranthus blitoides*)  
Oldwoman (*Artemisia stelleriana*)  
Pennsylvania Pellitory (*Parietaria pensylvanica*)  
Rape (*Brassica rapa*)  
Russian-Thistle (*Salsola kali*)  
Smooth Amaranth (*Amaranthus hybridus*)  
Spiny Amaranth (*Amaranthus spinosus*)

#### Grasses

Bermuda Grass (*Cynodon dactylon*)  
Black Bent (*Agrostis gigantea*)  
Clustered Fescue (*Festuca paradoxa*)  
Colonial Bent (*Agrostis capillaris*)  
Common Timothy (*Phleum pratense*)  
Corn (*Zea mays*)  
Elliott's Bent (*Agrostis elliotiana*)  
Kalm's Brome (*Bromus kalmii*)  
Large Sweet Vernal Grass (*Anthoxanthum odoratum*)

Nodding Fescue (*Festuca subverticillata*)  
Orchard Grass (*Dactylis glomerata*)  
Perennial Rye Grass (*Lolium perenne*)  
Red Fescue (*Festuca rubra*)  
Soft Brome (*Bromus hordeaceus*)  
Upland Bent (*Agrostis perennans*)  
Winter Bent (*Agrostis hyemalis*)

## Significant Allergens for Washington, DC in Fall

### Trees

California Privet (*Ligustrum ovalifolium*)  
Groundseltree (*Baccharis halimifolia*)

### Weeds

Annual Ragweed (*Ambrosia artemisiifolia*)  
Annual Wormwood (*Artemisia annua*)  
Black Mustard (*Brassica nigra*)  
Cabbage (*Brassica oleracea*)  
Chinese Mustard (*Brassica juncea*)  
Common Wormwood (*Artemisia vulgaris*)  
Great Ragweed (*Ambrosia trifida*)  
Groundseltree (*Baccharis halimifolia*)  
Halberd-Leaf Orache (*Atriplex patula*)  
Mat Amaranth (*Amaranthus blitoides*)  
Oldwoman (*Artemisia stelleriana*)  
Pennsylvania Pellitory (*Parietaria pennsylvanica*)  
Rape (*Brassica rapa*)  
Russian-Thistle (*Salsola kali*)  
Smooth Amaranth (*Amaranthus Hybridus*)  
Spiny Amaranth (*Amaranthus spinosus*)

### Grasses

Bermuda Grass (*Cynodon dactylon*)  
Colonial Bent (*Agrostis capillaris*)  
Common Timothy (*Phleum pratense*)  
Corn (*Zea mays*)  
Orchard Grass (*Dactylis glomerata*)  
Perennial Rye Grass (*Lolium perenne*)  
Upland Bent (*Agrostis perennans*)

## F. PLANTS TO AVOID CTD.

### *Significant Allergens for Washington, DC in Winter*

#### Trees

[Box Elder, Ash-Leaf Maple \(\*Acer negundo\*\)](#)

[Green Ash \(\*Fraxinus pennsylvanica\*\)](#)

[Red Mulberry \(\*Morus rubra\*\)](#)

[White Ash \(\*Fraxinus americana\*\)](#)

[White Mulberry \(\*Morus alba\*\)](#)

#### Weeds

[Annual Ragweed \(\*Ambrosia artemisiifolia\*\)](#)

[Cabbage \(\*Brassica oleracea\*\)](#)

[Pennsylvania Pellitory \(\*Parietaria pennsylvanica\*\)](#)

[Rape \(\*Brassica rapa\*\)](#)

[Spiny Amaranth \(\*Amaranthus spinosus\*\)](#)

#### Grasses

[Elliott's Bent \(\*Agrostis elliottiana\*\)](#)

[Winter Bent \(\*Agrostis hyemalis\*\)](#)

## H. HISTORIC PRESERVATION TREATMENT RECOMMENDATIONS

The following treatment recommendations can be found in Chapter 6 of the AFRH-W Historic Preservation Plan (2007). The treatment recommendations are based on the Relative Level of Significance (RLS) of the individual resource, defined as follows:

(please note that all table numbers in this section reference the table numbers in the HPP)

**TABLE 5.2 RANKINGS OF LEVELS OF SIGNIFICANCE**

<i>Total Score</i>	<i>Relative Level of Significance</i>	<i>Definition</i>
12-18	Key	The resource is of the highest level of importance to the historic significance of the Home and is key to an understanding of the most significant aspects of the property's history.
7-11	Significant	The resource is of a high level of importance to the historic significance of the Home and holds a strong association with the significant aspects of the property's history.
4-6	Supporting	The resource is of a moderate level of importance to the historic significance of the Home and is associated with the significant aspects of property's history in a supporting capacity.
1-3	Minor	The resource is of minimal contribution to the historic significance of the Home and is nominally associated with property's history.
0	Non-Contributing	The resource makes no contribution to the historic significance of the Home.

## H. HISTORIC PRESERVATION TREATMENT RECOMMENDATIONS CTD.

<b>TABLE 6.5 AFRH TREATMENT RECOMMENDATIONS FOR BUILDINGS AND STRUCTURES</b>					
		<i>Key</i>	<i>Significant</i>	<i>Supporting</i>	<i>Minor</i>
Protect and maintain the resource's original/historic elements.	Interior	√	√		
	Exterior	√	√	√	√
Implement AFRH HPMP for original/historic elements.	Interior	√	√		
	Exterior	√	√	√	
Repair original/historic elements using in-kind materials and finishes.	Interior	√			
	Exterior	√	√	√ When practical	√ When practical
Replace original/historic elements only if a repair is not possible. Replacement should replicate materials and finishes.	Interior	√			
	Exterior	√	√	√ Replacement can be relocated or closely similar to original/historic materials and finished as practical	√ Replacement can be relocated or closely similar to original/historic materials and finished as practical
Prior to proposing any work prepare FPO-directed appropriate level of documentation	Interior	√	√		
	Exterior	√	√		
<b>AFRH ACTION</b>					
Prepare HPAR for internal review by FPO (in coordination with CR Manager).		√	√	√	√
Prepare URR and submit to the DC SHPO for review. This will require documentation of existing conditions, and may require historic research.		√	√	√	
Record project action in AFRH-W RI/CRM database.		√	√	√	√
Initiate work only upon receipt of DC SHPO written approval or expiration of review period.		√	√	√	
<p><b>EXEMPT ACTIVITIES FOR ALL RESOURCE LEVELS OF SIGNIFICANCE:</b></p> <ul style="list-style-type: none"> <li>• Routine and cyclical preservation maintenance tasks: See AFRH HP SOP #3 Capital Improvements: Preservation – Maintenance.</li> <li>• Repair/replacement of small, functional non-original/non-historic elements when no harm to historic material and the action is reversible.</li> <li>• Re-painting only of painted surfaces.</li> <li>• No-impact cleaning (water pressure must not exceed 100 PSI).</li> </ul> <p>* Practical is defined as the action that balances functional requirements, daily operations and needs, available materials, financial resources, and time requirements with the visual impact, importance of the element to the resource's integrity, and the public benefits to be accrued by the action.</p>					

## H. HISTORIC PRESERVATION TREATMENT RECOMMENDATIONS CTD.

<b>TABLE 6.6 AFRH TREATMENT RECOMMENDATIONS FOR OBJECTS</b>					
	<i>Key</i>	<i>Significant</i>	<i>Supporting</i>	<i>Minor</i>	
Protect and maintain the resource's original/historic surfaces and structure.	√	√	√	√	
Implement AFRH-W HPMP for original/historic surfaces and structure.	√	√			
Repair original/historic surfaces and structure only using in-kind materials and finishes.	√	√	√ When practical*	√ When practical*	
Replace original/historic surfaces and structure only if a repair is not possible. Replacement should replicate materials and finishes.	√	√	√ Replacement can be replicated or closely similar to original/historic materials and finishes as practical	√ Replacement can be replicated but may be generally similar to original/historic materials and finishes as practical	
<b>AFRH ACTION</b>					
Prepare HPAR for internal review by FPO (in coordination with CR Manager).	√	√	√	√	
Prepare URR and submit to the DC SHPO for review. This will require documentation of existing conditions, and may require historic research.	√	√	√		
Record project action in AFRH-W RI/CRM database.	√	√	√	√	
Initiate work only upon receipt of DC SHPO written approval or expiration of review period.	√	√	√		
<p><b>EXEMPT ACTIVITIES FOR ALL RESOURCE LEVELS OF SIGNIFICANCE:</b></p> <ul style="list-style-type: none"> <li>• Routine and cyclical preservation maintenance tasks: See AFRH HP SOP #3 Capital Improvements: Preservation – Maintenance.</li> <li>• Repair/replacement of small, functional non-original/non-historic elements when no harm to historic material and the action is reversible.</li> <li>• Re-painting only of painted surfaces.</li> <li>• No-impact cleaning (water pressure must not exceed 100 PSI).</li> </ul> <p>* Practical is defined as the action that balances functional requirements, daily operations and needs, available materials, financial resources, and time requirements with the visual impact, importance of the element to the resource's integrity, and the public benefits to be accrued by the action.</p>					

## H. HISTORIC PRESERVATION TREATMENT RECOMMENDATIONS CTD.

TABLE 6.7 AFRH TREATMENT RECOMMENDATIONS FOR LANDSCAPE RESOURCES

	<i>Key</i>	<i>Significant</i>	<i>Supporting</i>	<i>Minor</i>
Protect and maintain the historic character of the landscape resource.	√	√	√	√
Implement AFRH-W HPMP for landscape resources.	√	√	√	√ To the extent practical
Replace damaged or dead natural original/historic plant material when necessary.	√	√	√	√ To the extent practical
When replacing natural original/historic plant material, use the same species or, if not available, a similar species that resembles the size and form of the vegetation. Substitute cultivars of original plants when originals cannot be located.	√	√	√	√ To the extent practical
When replacing non-original/non-historic plant material, use plant species known to be on site during the appropriate sub-period defined for the Home. Substitute cultivars of period-appropriate plant species when originals cannot be located.	√	√ To the extent practical	√ To the extent practical	√ To the extent practical
When rehabilitating or modifying landscape resources, respect the historic relationship between the built and natural resources to ensure the preservation of the landscape design.	√	√	√ To the extent practical	√ To the extent practical
<i>AFRH ACTION</i>				
Prepare HPAR for internal review by FPO (in coordination with CR Manager).	√	√	√	√
Prepare URR and submit to the DC SHPO for review. This will require documentation of existing conditions, and may require historic research.	√	√		
Record Project action using AFRH-W RI/CRM database.	√	√	√	√
Initiate work only upon receipt of DC SHPO written approval or expiration of review period.	√	√		
<p><b>EXEMPT ACTIVITIES FOR ALL RESOURCE LEVELS OF SIGNIFICANCE:</b></p> <ul style="list-style-type: none"> <li>• Routine and cyclical preservation maintenance tasks. See AFRH HP SOP #3 Capital Improvements: Preservation – Maintenance.</li> <li>• Planting of annuals when no harm to historic plant materials and the action is reversible.</li> <li>• Removal of dead or damaged non-historic/non-original natural plant resources.</li> </ul> <p>* Practical is defined as an action that balances functional requirements, daily operations and needs, available materials, financial resources, and time requirements with the visual impact, importance of the element to the resource’s integrity, and the public benefits to be accrued by the action.</p>				

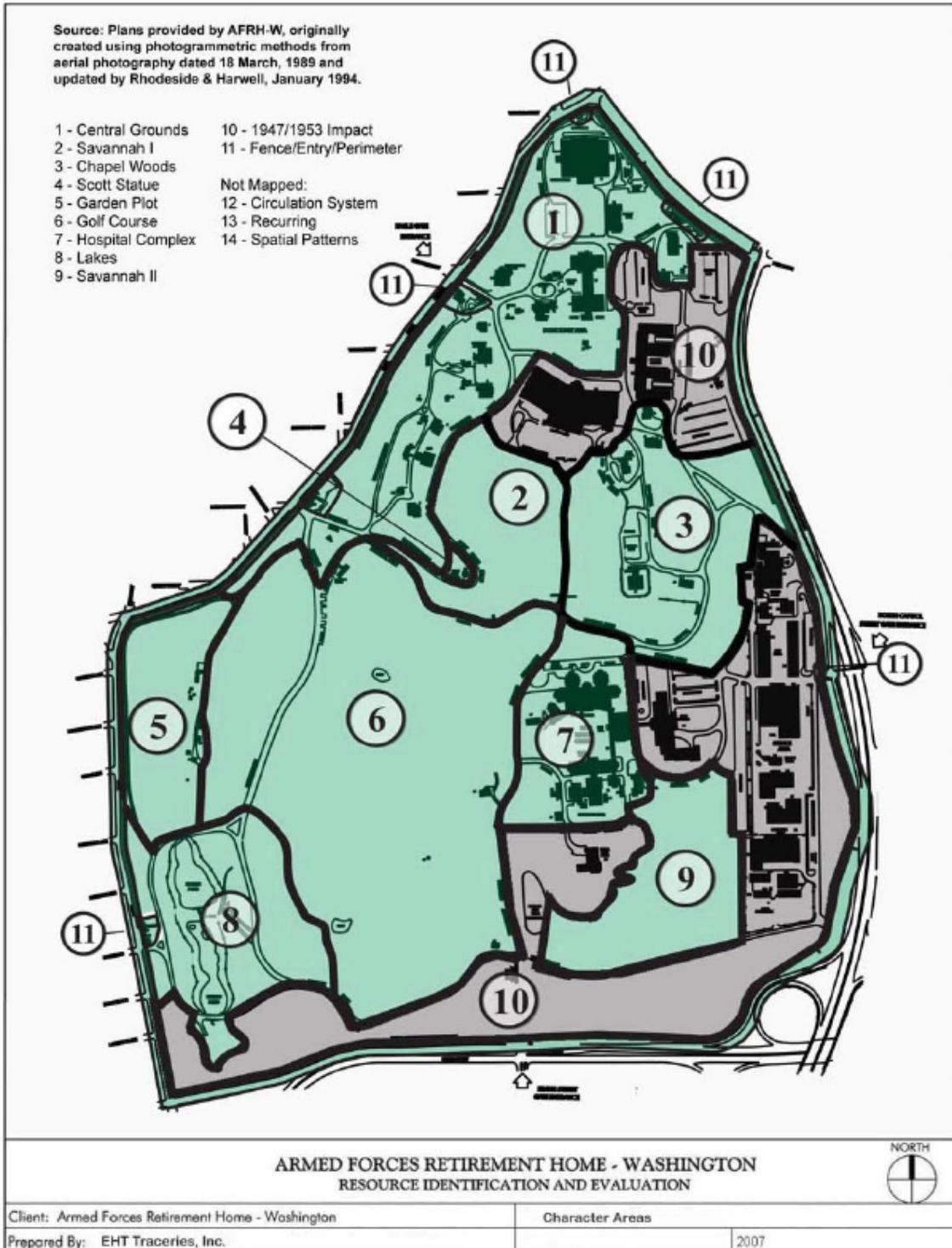
# I. HISTORIC PRESERVATION PROCEDURES

The AFRH-W Historic Preservation Plan (HPP) establishes Historic Preservation Standard Operating Procedures (HP SOPs) for the treatment of its contributing historic and cultural landscape (built and landscape) resources, as well as for handling the possibility of disturbance of the archaeological sensitivity zones. The procedures are based on AFRH's responsibilities as a federal agency and reflect the requirements of Section 110 and Section 106 of the National Historic Preservation Act and its associated regulations. The HPP includes the following HP SOPs that should be referenced as they relate to the design and implementation of individual landscape projects.

- AFRH HP SOP #1: Section 106 Review for All Undertakings
- AFRH HP SOP #2: Capital Improvement: Adaptive Use
- AFRH HP SOP #3: Capital Improvement: Preservation - Maintenance
- AFRH HP SOP #4: Capital Improvement: Preservation - Repair
- AFRH HP SOP #5: Capital Improvement: Preservation - Restoration
- AFRH HP SOP #6: Capital Improvement: Alteration
- AFRH HP SOP #7: Abandonment/Mothballing
- AFRH HP SOP #8: Disposal: Demolition/Removal
- AFRH HP SOP #9: Disposal: Transfer, Negotiated Sale, Donation, or Sale
- AFRH HP SOP #10: Disposal: Ground Lease
- AFRH HP SOP #11: New Construction
- AFRH HP SOP #12: Ground Disturbing Activities and Treatment of Archaeological Resources
- AFRH HP SOP #13: Responding to ARPA Violation
- AFRH HP SOP #14: Coordination of NEPA with Cultural Resource Requirements
- AFRH HP SOP #15: Determination of Exemption

# J. HPP CHARACTER AREAS

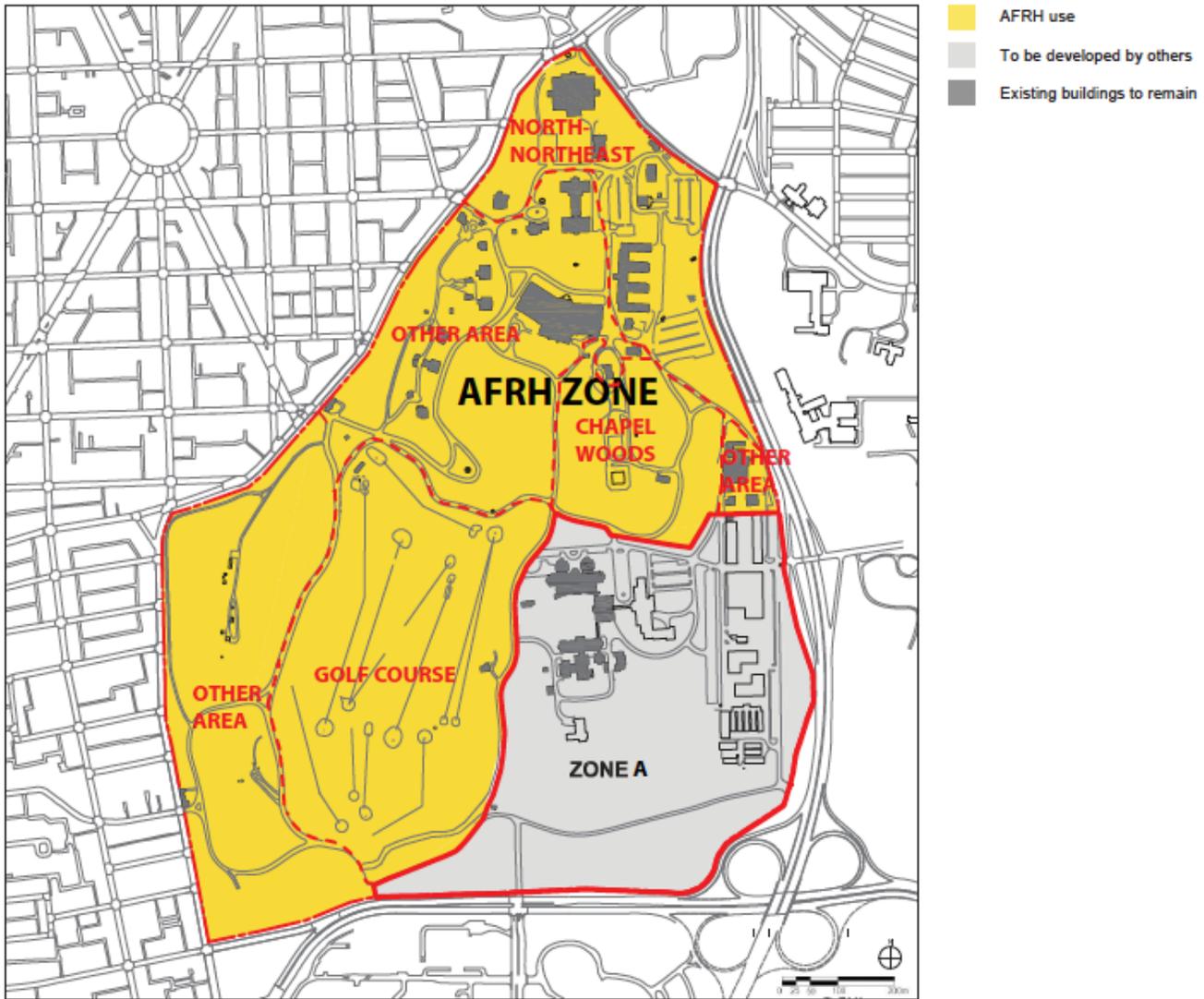
The following map of Character Areas can be found in the AFRH-W Historic Preservation Plan (HPP). Please note that the figure number refers to the figure number in the HPP. The HPP includes additional information about each Character Area.



**Figure 5.1: Map of AFRH-W Character Areas (Green = Contributing Character Areas, Grey = Non-Contributing Character Areas)**  
(EHT Tracerics, Inc., 2006; base map provided by Rhodeside & Harwell, 1994)

# K. MASTER PLAN ZONES AND SUB-ZONES

The following map of Zones and Sub-Zones can be found in the AFRH-W Master Plan (2008).



AFRH Zone and Sub-zones

# L. AFRH VISION, MISSION, PRINCIPLES

## VISION

A retirement community committed to excellence, fostering independence, vitality and wellness for veterans, making it a vibrant place in which to live, work and thrive.

## MISSION

To fulfill our Nation's commitment to its veterans by providing a premier retirement community with exceptional residential care and extensive support services.



## GUIDING PRINCIPLES

### *Person-centered*

"Person-centered Care" is defined as the careful manner in which Resident needs are considered while developing responsive plans of care and delivering meaningful services.

### *Accountability*

We expect our workforce to achieve what we promise to Residents, staff and service partners. To ensure success, we measure progress and provide feedback to our customers.

### *Integrity*

We will strongly uphold the mission of the AFRH. We are honest and ethical and deliver on our commitments. We recognize that good ethical decisions require individual responsibility enriched by collaborative efforts.

### *One vision/one mission/one organization*

Success depends on our devotion to an unwavering vision and mission. Working together in different locations, under various managers and leaders, we maintain a distinct focus to serve our Residents. We collaborate and respond in a unified and single voice.

### *Workforce growth*

We strive to hire and retain the most qualified people. We maximize their success through training and development as well as maintaining and promoting open communication.

### *Honor heritage*

We honor the rich history of the US Armed Forces – from our Veterans to our victories. As such, our campus reflects that military heritage with memorabilia and tributes.

### *Inspire excellence*

We continuously work to improve each process, service and its delivery, while striving for excellence in all we do. We expect excellence and reward it.

As a federal agency and retirement community in Washington, DC, AFRH-W is subject to the following forms of compliance:

## **CARF ACCREDITATION (VALID 2008-2013)**

The AFRH received a five-year accreditation from the Commission on Accreditation of Rehabilitation Facilities-Continuing Care Accreditation Commission (CARF-CCAC) in 2008 and must ensure any capital improvement projects are consistent with the Quality Standards set by CARF-CCAC to maintain its accreditation.

CARF is an independent, non-profit accrediting body whose mission is “to promote the quality, value, and optimal outcomes of services through a consultative accreditation process.” AFRH applied for and received a five-year accreditation from CARF-CCAC in 2008. As part of maintaining the accreditation, AFRH is subject to periodic inspections through CARF-CCAC, during which the Agency and its facilities will be evaluated using the following Quality Standards as outlined by CARF. The CARF-CCAC Program includes:

**Mission:** The mission of CARF is to promote the quality, value, and optimal outcomes of services through a consultative accreditation process that centers on enhancing the lives of the persons served.

**Vision:** Through responsiveness to a dynamic and diverse environment, CARF serves as a catalyst for improving the quality of life of the persons served by CARF-accredited organizations and the programs and services they provide.

### Core values

- All people have the right to be treated with dignity and respect
- All people should have access to needed services that achieve optimum outcomes
- All people should be empowered to exercise informed choice

### Purposes

- To develop and maintain current, field-driven standards that improve the value and responsiveness of the programs and services delivered to people in need of rehabilitation and other life enhancement services
- To recognize organizations that achieve accreditation through a consultative peer-review process and demonstrate their commitment to the continuous improvement of their programs and services with a focus on the needs and outcomes of the persons served
- To conduct accreditation research emphasizing outcomes measurement and management, and to provide information on common program strengths as well as areas needing improvement
- To provide consultation, education, training, and publications that support organizations in achieving and maintaining accreditation of their programs and services
- To provide information and education to persons served and other stakeholders on the value of accreditation
- To seek input and to be responsive to persons served and other stakeholders

In addition, CARF is committed to:

- The continuous improvement of both organizational management and service delivery
- Diversity and cultural competence in all CARF activities and associations
- Enhancing the involvement of persons served in all of CARF’s activities
- Persons served being active participants in the development and application of standards of accreditation
- Enhancing the meaning, value, and relevance of accreditation to persons served

CARF-CCAC compliance must be taken into consideration in the AFRH Master Capital Improvement Plan in two ways: first, AFRH must ensure that capital improvement projects are executed in a way that does not conflict with the CARF-CCAC quality standards; second, AFRH should plan for capital improvement projects that further illustrate the Agency’s commitment to these standards.

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### AMERICANS WITH DISABILITIES ACT

The AFRH must comply with the Americans with Disabilities Act (ADA) ensure that all facilities at AFRH-W are safe and accessible for Residents of all abilities.

President George H. W. Bush signed the ADA into law in 1990, and ADA Standards for Accessible Design have since been developed and enforced by the Department of Justice. The Standards, parts of Titles II and III Regulations (28 CFR Part 35 and 36), were published in 1991 and revised in 1994. New regulations were published in 2010; compliance with the new regulations is permitted as of September 15, 2010, but not required until March 15, 2012. When considering ADA Design Standards for AFRH capital improvement projects, it will be prudent to apply the 2010 Standards.

Title II regulations are applicable to State and Local Government Facilities, and Title III standards apply to Public Accommodations and Commercial Facilities. 2004 ADAAG at 36 CFR part 1191, appendices B and D, apply to both Title II and Title III facilities.

The purpose of the ADA Standards for Accessible Design is to allow individuals with disabilities to access places of Local and State Government as well as public accommodations and commercial facilities. The guidelines are to be applied during the design, construction, and alteration of buildings that are subject to compliance to these regulations under the ADA of 1990. In new construction and alteration projects, standards take into consideration building access, path of travel, and accessible features (telephones, drinking fountains, restrooms, parking, etc.).

### THE HEALTH INSURANCE PORTABILITY AND ACCOUNTABILITY ACT

Because AFRH provides healthcare services to Residents, the Agency must comply with the Health Insurance Portability and Accountability Act of 1996 (HIPAA). Capital improvement projects will be subject to compliance with both the Privacy and Security Rules under HIPAA.

HIPAA (PL 104-191) became law in 1996 and stipulates the U.S. Department of Health and Human Services (HHS) develop national standards for electronic healthcare transaction security and Federal privacy protections for individually identifiable health information. In response, HHS published the Privacy Rule and the Security Rule in 2000 and 2002, respectively. Sections of these rules include regulations for real and personal property associated with medical services and health information relevant to AFRH-W capital improvement projects.

### NATIONAL ENVIRONMENTAL POLICY ACT

To comply with NEPA, every AFRH-W capital improvement project must include consideration and analysis of its impacts on the environment, as well as on the relationship of people with the environment. Specifically, each must comply with the AFRH NEPA compliance policies established in 38 CFR Part 200 in November 2009.

President Richard Nixon signed the National Environmental Protection Act (NEPA, PL 91-190, as amended) into law on January 1, 1970, requiring every Federal agency to consider the impact of its actions on the human environment. NEPA also requires each agency to establish agency-specific procedures for NEPA compliance. AFRH established its agency-specific NEPA procedures in 2009 to ensure implementation of NEPA and cooperation with related agencies, including the National Capital Planning Commission (NCPC). These procedures include guidelines for the Classification of AFRH Actions, which directs AFRH to place proposed actions into one of three classes of documentation: A Categorical Exclusion (CATEX), Environmental Assessment (EA) or Environmental Impact Statement (EIS): Some capital improvement projects may also include public involvement in the planning stages, depending on the degree of projected impacts.

### AFRH-W MASTER PLAN

All proposed capital improvement projects at AFRH-W should be consistent with the NCPC-approved AFRH-W Master Plan (2008). Any material deviation from the Master Plan will require a Master Plan Amendment, which triggers other regulatory compliance related to historic preservation and environmental impacts.

## M. COMPLIANCE CTD.

The AFRH-W Master Plan is the basis for facilitating and directing future development by the private sector and Agency on the 272-acre AFRH-W campus. The AFRH-W Master Plan was approved by the National Capital Planning Commission (NCP) in 2008 for its consistency with the Comprehensive Plan for the National Capital (Federal and District elements). The AFRH-W Master Plan divides AFRH-W into two primary zones:

- AFRH Zone: The area (195 acres) that will continue to be owned and managed by the Agency primarily for the operation of AFRH-W
- Zone A: The area (77 acres) that will be leased or sold to a private developer for the purpose of leveraging the Agency's real estate to increase revenue for the AFRH Trust Fund

For each Zone, the Master Plan specifies appropriate development footprints, as well as guidelines for land use, new construction, access and security, streets and streetscapes, parking, views and topography, open space, site perimeter, treescapes, foundation plantings, commemorative objects and sculpture, site furnishings, site materials, lighting, and signage. Capital improvement projects proposed for AFRH-W must be consistent with development footprints and design guidelines set forth in the AFRH-W Master Plan. Any proposed work or development that is materially inconsistent with the Master Plan will require a Master Plan Amendment, which is subject to compliance procedures related to the National Environmental Protection Act (NEPA) and the National Historic Preservation Act (NHPA). The Master Plan is accompanied by a Programmatic Agreement that addresses historic preservation compliance related to the Master Plan, as well as the procedures for amending the Master Plan.

### NATIONAL HISTORIC PRESERVATION ACT

Because AFRH is a Federal Agency, it must comply with the National Historic Preservation Act of 1966, as amended (NHPA) and its associated regulations and guidelines. AFRH complies with the NHPA through implementation of the AFRH-W Historic Preservation Plan and the stipulations of the AFRH-W Programmatic Agreement. Most NHPA compliance for a Federal agency is related to Section 106, Section 110, and Section 111 of the Act.

#### AFRH-W HISTORIC PRESERVATION PLAN AND PROGRAMMATIC AGREEMENT

In 2007, AFRH adopted the AFRH-W Historic Preservation Plan (HPP) as its guiding document for compliance with Section 106, Section 110, and Section 111 of the NHPA. The HPP was prepared in accordance with the NHPA and its associated regulations and guidelines, notably the "Guidelines for Federal Agency Responsibilities under Section 110 of the National Historic Preservation Act" (53 FR 4727) and "Protection of Historic Properties" (as amended August 5, 2004; 36 CFR Part 800). The AFRH-W HPP is enforced under the AFRH-W Programmatic Agreement (PA) between the District of Columbia State Historic Preservation Office (DCSHPO), the Advisory Council on Historic Preservation (ACHP), the National Park Service (NPS), and AFRH. The PA was executed for the implementation of the approved AFRH-W Master Plan (2008). The AFRH-W HPP establishes internal policies for managing the AFRH-W campus in a manner that maintains the historic integrity of the AFRH-W Historic District and its resources while obtaining the most efficient and productive use of the Agency's property.

#### NHPA SECTION 106

All capital improvement projects at AFRH-W must be assessed for potential adverse effects on historic resources. At AFRH-W, such projects must follow the procedures set forth in HP SOP # 1 (Section 106 Review of All Undertakings).

Section 106 of the NHPA (36 CFR Part 800) requires Federal agencies to take into account the effects of their undertakings on historic properties and afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment. Once a Federal agency has proposed an undertaking, it must identify a potential area of effect, identify historic properties within that area of effect, identify potential adverse effects to those properties, and resolve those properties through avoidance, minimization or mitigation. This process is completed in coordination with the State Historic Preservation Officer (SHPO) and could include consultation with other relevant public and private stakeholders. Because the entire 272 acres of AFRH-W have been designated an Historic District, all undertakings at AFRH-W must be assessed for potential adverse to the AFRH-W Historic District and its resources. Through the HPP and PA, AFRH-W follows a customized Section 106 process that requires documentation and review that is managed by the AFRH CR Manager. This process typically involves review by the District of Columbia SHPO through an "Undertaking Review Request." Larger design projects may require additional

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review by the National Capital Planning Commission (NCPC), the Commission of Fine Arts (CFA), the National Park Service (NPS, if there is a potential adverse effect within the National Historic Landmark), and/or the Advisory Council on Historic Preservation.

### *NHPA SECTION 110*

In the planning of capital improvement projects, AFRH must identify and address the preservation needs of its historic resources and endeavor to keep historic resources in productive use.

The intent of Section 110 of the NHPA (16 U.S.C. 470) is to ensure that historic preservation is fully integrated into the ongoing programs of Federal agencies, including planning, budgeting, and operations. Section 110 regulations state explicit Federal agency responsibilities, including the identification and protection of historic properties, the avoidance of “unnecessary damage” to historic resources, and the consideration of projects and programs that further the purposes of the NHPA. This includes the declaration that historic properties under the jurisdiction or control of the agency are to be managed and maintained in a way that considers the preservation of their historic, archeological, architectural, and cultural values. The AFRH-W HPP establishes implementation actions that ensure the Agency’s compliance with NHPA Section 110. Several of these implementation actions are specifically related to capital planning and potential capital improvement projects at AFRH-W, including:

### *NHPA SECTION 111*

All capital improvement projects that are related to the sale, lease, or exchange of historic properties at AFRH-G or AFRH-W must take into consideration Section 111 of the NHPA. At AFRH-W, such projects must follow the procedures set forth in HP SOPs #8, #9, and #10.

The intent of Section 111 of the NHPA (16 U.S.C. 470h-3) is to authorize Federal agencies to sell, lease, or exchange historic properties that they own or control to non-Federal entities for their mutual benefit and to encourage agencies to take measures that will preserve the historic integrity of properties once they leave Federal management. HP SOPs #8 (Disposal: Demolition/Removal), #9 (Disposal: Transfer, Negotiated Sale, Donation, or Sale), and #10 (Disposal: Ground Lease) address the disposal of historic properties at AFRH-W to ensure that the spirit of Section 111 is addressed in their internal procedures.

## **EXECUTIVE ORDER 13423**

The AFRH capital improvement projects that have an environmental impact through use and management of energy will be subject to Executive Order (EO) 13423 Strengthening Federal Environmental, Energy, and Transportation Management. AFRH as a Federal Agency must comply with the entirety of the EO; capital improvement planning should take this into account for projects that involve new construction and renovation, or that have the potential to reduce greenhouse gas emissions and water consumption intensity.

This Executive Order, signed by President George W. Bush on January 24, 2007, requires the implementation of a wide range of sustainable practices for all Federal agencies. The order directs Federal agencies to: (2a) improve energy efficiency and reduce greenhouse gas emissions; (2b) use renewable energy sources; (2c) reduce water consumption intensity; (2d) use sustainable environmental practices in acquisitions of goods and services; (2e) reduce pollution and use recycling programs; (2f) ensure sustainable design and high-performance buildings; (2g) ensure sustainable practices in operations of motor vehicles; (2h) ensure proper electronics stewardship.

As an independent Federal Agency, the AFRH is subject to all sections of this order. For the purposes of planning for capital improvements, however, the Agency will focus on those requirements affecting infrastructure, renovation, and new construction. Three of the Goals for Agencies are anticipated to play the largest role in planning for compliance:

- Section 2 (a) improve energy efficiency and reduce greenhouse gas emissions of the agency, through reduction of energy intensity by (i) three percent annually through the end of fiscal year 2015, or (ii) 30 percent by the end of fiscal year 2015, relative to the baseline of the agency’s energy use in fiscal year 2003;
- Section 2 (c) beginning in fiscal year 2008, reduce water consumption intensity, relative to the baseline of the

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agency's water consumption in fiscal year 2007, through life-cycle cost-effective measures by 2 percent annually through the end of fiscal year 2015 or 16 percent by the end of fiscal year 2015;

- Section 2 (f) ensure that (i) new construction and major renovation of agency buildings comply with the Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings set forth in the Guiding Principles for Federal leadership in High Performance and Sustainable Buildings Memorandum of Understanding (2006), and (ii) 15 percent of the existing Federal capital asset building inventory of the agency as of the end of fiscal year 2015 incorporates the sustainable practices in the Guiding Principles.

### EXECUTIVE ORDER 13514

AFRH must comply with Executive Order (EO) 13514 Federal Leadership in Environmental, Energy, and Economic Performance to exhibit leadership in environmental, energy, and economic performance in its capital improvement projects. As an expansion of EO 13423, this EO places more specific requirements and target dates for compliance with the environmental regulations ordered. If capital improvement projects qualify for compliance here, they must be in keeping with the mandated Agency Strategic Sustainability Performance Plan.

On October 5, 2009, President Barack Obama ordered Federal Leadership in Environmental, Energy, and Economic Performance. It does not rescind the requirements of EO 13423, but rather expands upon them, specifically aiming "to establish an integrated strategy towards sustainability in the Federal Government and to make reduction of greenhouse gas emissions a priority for Federal agencies."

This EO sets forth four different categories of requirements: deadlines for achieving GHG reduction targets; numerical goals for each individual agency; non-numerical goals for each agency; and an Agency Strategic Sustainability Performance Plan, to be developed, implemented, and updated annually. Section 2 of the order stipulates the goals that Federal agencies must meet, all of which apply to AFRH as an independent Federal Agency. The Plan for capital improvements will focus on compliance with the following Goals for Agencies:

- Section 2 (f) advance regional and local integrated planning;
- Section 2 (g) implement high performance sustainable Federal building design, construction, operation and management, maintenance, and deconstruction by:
  - Beginning in 2020 and thereafter, ensuring that all new Federal buildings that enter the planning process are designed to achieve zero-net-energy by 2030;
  - Ensuring that all new construction, major renovation, or repair and alteration of Federal buildings complies with the Guiding Principles for Federal leadership in High Performance and Sustainable Buildings (Guiding Principles);
  - Ensuring that at least 15 percent of the agency's existing buildings (above 5,000 gross square feet) and building leases (above 5,000 gross square feet) meet the Guiding Principles by fiscal year 2015 and that the agency makes annual progress toward 100-percent conformance with the Guiding Principles for its building inventory;
  - Pursuing cost-effective, innovative strategies, such as highly reflective and vegetative roofs, to minimize consumption of energy, water, and materials
  - Managing existing building systems to reduce the consumption of energy, water, and materials, and identifying alternatives to renovation that reduce existing assets' deferred maintenance costs;
  - When adding assets to the agency's real property inventory, identifying opportunities to consolidate and dispose of existing assets, optimize the performance of the agency's real-property portfolio, and reduce associated environmental impacts;
  - Ensuring that rehabilitation of Federally-owned historic buildings utilizes best practices and technologies in retrofitting to promote long-term viability of the buildings.
- Section 2 (h) advance sustainable acquisition to ensure that 95 percent of new contract actions including task and delivery orders, for products and services with the exception of acquisition of weapon systems, are energy efficient... water efficient, biobased, environmentally preferable... non-ozone depleting, contain recycled content, or are non-toxic or less-toxic alternatives, where such products and services meet agency performance requirements.

Further, Section 8 of the EO mandates that AFRH develop an Agency Strategic Sustainability Performance Plan for the ten years beginning in fiscal year 2011 and continuing through fiscal year 2021. The Plan must state how the Agency will achieve all sustainability goals and targets in Section 2 of the document, and therefore has the potential to affect the implementation of many capital improvement projects at AFRH.