



**OVERVIEW AND TEXT OF THE
PROGRAM COMMENT FOR
DEPARTMENT OF THE ARMY
INTER-WAR ERA HISTORIC HOUSING,
ASSOCIATED BUILDINGS AND STRUCTURES,
AND LANDSCAPE FEATURES (1919-1940)**

**Text of the Program Comment as officially
adopted by the Advisory Council on Historic
Preservation on September 4, 2020.**

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OVERVIEW AND TEXT OF THE PROGRAM COMMENT FOR DEPARTMENT OF THE ARMY INTER-WAR HISTORIC HOUSING, ASSOCIATED BUILDINGS AND STRUCTURES, AND LANDSCAPE FEATURES (1919–1940)

This document is divided into two major sections. Section I *Overview of the Program Comment for Department of the Army Inter-War Era Historic Housing, Associated Buildings and Structures, and Landscape Features (1919–1940)*, provides the contextual information necessary to understand the rationale for the Program Comment for Department of the Army Inter-War Era Historic Housing, Associated Buildings and Structures, and Landscape Features (1919–1940). Section II *Text of the Program Comment for Department of the Army Inter-War Era Historic Housing, Associated Buildings and Structures, and Landscape Features (1919–1940)*, is the full text of the Program Comment adopted by the the Advisory Council on Historic Preservation (ACHP) on 4 September 2020, in accordance with 36 CFR 800.14(e).

SECTION I. OVERVIEW OF THE PROGRAM COMMENT FOR DEPARTMENT OF THE ARMY INTER-WAR ERA HISTORIC HOUSING, ASSOCIATED BUILDINGS AND STRUCTURES, AND LANDSCAPE FEATURES (1919–1940)

1.0 Summary

1.1 Program Comment Approach

The Army has the largest housing mission in the federal government, managing over 100,000 total housing units for Soldiers and their families. Of this total, the Army has approximately 31,000 historic housing units. Over 3,200 of these historic housing units are from the Inter-War Era (1919-1940).

The Army's inventory of Inter-War Era historic housing was in general constructed following standardized plans developed by the Army Quartermaster Corps, and is subject to frequent and recurring undertakings. The intent of this Program Comment for Army Inter-War Era Housing, Associated Buildings and Structures, and Landscape Features (1919–1940) (Program Comment) is to address the Army's National Historic Preservation Act (NHPA) compliance requirements by establishing procedures for management of the Army's nation-wide inventory of over 3,200 Inter-War Era housing units that balances historic preservation requirements with the Army's responsibility to provide the thousands of military families who live in this historic housing with the quality of life, health, and safety they require and deserve.

The Army acknowledges that its Inter-War Era housing are historic properties for the purposes of the Program Comment. The Program Comment addresses a category of frequent and repetitive undertakings occurring within this large class of similar historic properties. The category of undertakings addressed by the Program Comment is *management actions*: maintenance, repair, rehabilitation, renovation, abatement, mothballing, demolition, replacement construction, new construction, lease and conveyance. These actions present a potential for adverse effects to historic properties.

The Program Comment's treatment measures for Army Inter-War Era housing are a result of the consultation process. The treatment measures address the effects of Army management actions through extensive historical research, documentation, and recordation of the properties, establishment of preservation planning documents to guide management actions, and the implementation of new procedures and lifecycle analyses to ensure the historic and architectural character of Inter-War Era Housing, associated buildings and

structures, and landscape features (hereinafter referred to as: Inter-War Era housing) is maintained and any unavoidable adverse effects resulting from management actions are minimized or otherwise mitigated. Historic preservation is defined in the NHPA to include documentation and recordation. Treatment measures in the NHPA Section 106 process often address the effects of undertakings on historic properties through documentation and recordation as part of the historic preservation process. The treatment measures include: extensive existing documentation, research to further develop the Army Inter-War Era housing historic context, development and implementation of *Design Guidelines for Army Inter-War Era Historic Housing (1919–1940)* (Design Guidelines), development and implementation of a *Building Materials Catalog for Army Inter-War Era Historic Housing (1919–1940)* (Building Materials Catalog), an Army Federal Preservation Officer (FPO) NHPA policy statement for Program Comment implementation, development of public information and use of social media for public educational materials, lifecycle tracking of building materials data, and treatment measure monitoring and reporting. In the case of management actions involving removal and replacement of historic building materials or demolition, the documentation records and preserves information about historic housing. The Program Comment, Design Guidelines, and Building Materials Catalog also identify materials, set criteria, and establish step-by-step procedures for consideration and selection of appropriate building materials.

Over 95% of Army Inter-War Era housing is managed under housing privatization partnerships that the Army has entered into with various property management entities. While day-to-day housing operations may occur under these partnerships, the Army remains ultimately responsible for compliance with the NHPA for its inventory of historic housing.

1.2 Obligation to Provide Quality Housing for Soldiers and their Families

The Army recognizes Soldiers and their families as its top priority. The Army has approximately 470,000 Active Duty soldiers with 650,000 family members, 400,000 of which are children. Military families must be resilient in the face of lengthy and dangerous wartime deployments of parents, intensive readiness training assignments that take parents away from home for long periods, and the frequent reassignments that require military families to relocate and children to change schools. Housing and associated living conditions are critical factors for military family resiliency in the face of the extraordinary challenges and stressors Soldiers and their families must cope with in their daily lives. The Army and this Nation have an obligation to provide quality housing to our Soldiers and their families for the many sacrifices they make in the defense of our country.

To meet this obligation, the Army must directly address the health and safety risks to military families living in historic housing that result from hazards such as lead-based paint and asbestos commonly found in historic building materials. The Army must also maintain and improve the living conditions that contribute to the quality of life owed to military families who occupy historic housing. The high costs associated with the use of historic building materials and in-kind building materials and specialized craftsman associated with using those materials have proven to be financially limiting factors to the Army's ability to fully implement planned improvements to historic housing.

Due to military mission needs, a military family may be required to move every two or three years. The Army attempts to minimize the impact of these moves on families and school-aged children to the extent possible by its efforts to plan many of the thousands of annual moves during the summer months, when schools are not in session. Many, but not

all, required maintenance, repairs, and improvements to all Army housing, both historic and non-historic, occur during this short transition in occupancy during the summer months. While extensive prior NHPA planning and actions to support these moves occur, the Section 106 project-by-project review process under existing installation-level Programmatic Agreements (PAs) has contributed to delays in completing historic housing maintenance, repairs, and improvements needed for the transition in occupancy. These delays directly impact the ability of reassigned military families to move-in and occupy historic housing.

To provide quality housing for military families, the Army must address the health and safety risks from historic building materials, associated costs, compliance process time, and must also implement actions that address and improve the material living conditions of historic housing to ensure Soldiers and their families have the quality of life they deserve.

2.0 Building Materials, Methods, and Terminology

2.1 Building Materials and Methods for Preservation of Inter-War Era Housing

The Army will implement its management actions to address the interconnected issues of health and safety, costs, process, and the material living conditions of Inter-War Era historic housing using appropriate building materials and methods that will maintain the historic and architectural character of Inter-War Era housing, associated buildings and structures, and landscape features. The Army will implement its management actions using *historic building materials*, *in-kind building materials*, and *imitative substitute building materials*. Imitative substitute building materials are modern, industry standard, natural, composite, and synthetic building materials that simulate the appearance of and substitute for higher cost historic building materials and in-kind building materials.

The Secretary of the Interior's Standards for the Treatment of Historic Properties recommends repair and restoration of deteriorated historic building materials over replacement whenever possible and, in cases where severe deterioration warrants replacement, replacement with in-kind building materials is recommended. However, in consideration of the known health hazards from lead-based paint and asbestos found in many historic building materials; the high costs and persistent health risks associated with the repair and restoration of historic building materials; the poor performance, short lifecycle, and high cost of various new in-kind building materials; and the requirement for high cost specialized craftsmen when historic building materials and in-kind building materials are used; imitative substitute building materials have become a relatively common solution in contemporary historic preservation practice and are being used on historic buildings with increasing frequency¹.

The use of imitative substitute building materials is not new. As related in the Secretary of the Interior's Standards for the Treatment of Historic Properties, less expensive and more readily available imitative building materials have been used for centuries to simulate the appearance of and substitute for other more expensive building materials. The quality of modern imitative substitute materials has risen dramatically in the 21st century with advances in building and manufacturing technologies. Imitative substitute building materials are a viable, cost effective alternative that, with proper planning and materials selection, can effectively maintain the historic and architectural character of historic properties.

¹ A. Van Domelen, Sarah K., 2009, Considerations and Methods for the Evaluation and Selection of Substitute Materials for Historic Preservation. University of Pennsylvania.

B. Preservation Brief 16, The Use of Substitute Materials on Historic Building Exteriors, US Department of the Interior, National Park Service.

Planning for the selection and use of appropriate building materials on historic housing is critical. Specific overarching planning criteria are established in the Program Comment for the selection of appropriate building materials that consider the need to maintain the historic and architectural character of Inter-War Era housing in a balanced priority with health, safety, and quality of life considerations for military families. To further ensure that proper planning for and use of appropriate building materials occurs, the Army developed two preservation planning documents associated with the Program Comment: the Design Guidelines, and the Building Materials Catalog. These two preservation planning documents are incorporated into the Program Comment as Appendices A and B, respectively.

The methods for selection and use of appropriate building materials is set forth in the Program Comment, Design Guidelines, and the Building Materials Catalog. The primary focus of these documents is on preservation of the historic and architectural design integrity of the housing, associated buildings and structures, and landscape features. The Design Guidelines provide specific information regarding Inter-War Era housing architectural styles and identify the overall character-defining features and design elements associated with the specific Inter-War Era architectural styles. Character-defining features include the overall shape, style and design of the building, decorative details, interior spaces and features, as well as its associated buildings and structures, and landscape features. The Guidelines also provide methods and approaches to Inter-War Era housing routine maintenance, emergency repairs and disasters, rehabilitation, renovation, new additions, new construction, replacement construction, and improvements to windows and doors, entrances, porches and details, roofs, foundations and walls, interiors, and interior structural systems. The

Guidelines also address mothballing and layaway of housing and provide guidelines for demolition. The Guidelines address historic designed landscapes and features, historic districts containing Inter-War Era housing, circulation systems and paving patterns, and associated buildings and structures. The Guidelines also address actions related to force protection requirements.

The Building Materials Catalog is used in concert with the Design Guidelines. The Building Materials Catalog provides additional specificity on building materials and their use. The Building Materials Catalog establishes the methodology for selecting specific building materials that will maintain the historic and architectural character of the housing, associated buildings and structures, and landscape features. Catalog entries are provided for major components of the house design. Design considerations for each catalog entry are derived from the design fundamentals of scale, mass, proportion, and materials. This provides the guidance for selection of appropriate materials and component designs that factor location, type, size, finish and maintenance into their selection. Focus is on appropriate design, applicable materials, and performance characteristics. Emphasis is placed on retention of the housing design integrity. By following the Design Guidelines and the Building Materials Catalog, the management actions implemented under the Program Comment will preserve the historic and architectural character of Inter-War Era housing.

2.2 Terminology

The following terminology associated with building materials is applied for the purposes of the Program Comment. *Historic building materials* means building materials that are 50 years old and older. *In-kind building materials* means new building materials that are identical to historic building materials in all possible respects including their

composition, design, color, texture, and other physical and visual properties. The term *imitative substitute building materials* means modern, industry standard, natural, composite, and synthetic building materials that simulate the appearance of and substitute for more costly historic building materials. (See *Definitions* in Section II, *Text of the Program Comment*). The term *imitative substitute building materials* that is used for the purposes of this Program Comment incorporates and standardizes the various terms that have been applied to that concept, and provides a clear definition where one currently does not exist.

While the use of imitative substitute building materials is not new, the terms used to refer to these materials are highly variable. The Secretary of the Interior's Standards for the Treatment of Historic Properties section titled "Imitative Materials" states that imitative building materials are common and readily available materials used to simulate a more expensive material. The Secretary of the Interior's Standards discuss the historical use of imitative materials; their 20th century use on building exteriors including discussion of vinyl siding, composite or fiber-cement siding, and synthetic or "faux" slate roofing; and their 21st century use in building interiors including wall coverings, and concrete, vinyl, and other manufactured flooring materials that simulate historic brick, stone, clay tile, and wood floors.

National Park Service (NPS) Preservation Brief 16 titled *The Use of Substitute Building Materials on Historic Building Exteriors* states that substitute materials are those products used to imitate historic materials, discusses the historical use of substitute materials by referring to those materials as "imitative materials," and refers to modern composite and synthetic materials as "substitute materials." The Secretary of the Interior's Standards makes no such terminological distinction in its discussion of imitative materials, it discusses both

such historically used materials and modern materials together under the single term “imitative materials.” Preservation Brief 16 limits its discussion of “substitute materials” to their use on building exteriors only, and does not include a discussion of their use in building interiors. The term “substitute materials” with its reference to materials used on building exteriors only is too limiting for this Program Comment. The Program Comment applies to both building exteriors and interiors. “Imitative materials” as used in the Secretary of Interior's Standards is more comprehensive, it addresses use of these materials in both building interiors and exteriors, and applies the term “imitative materials” in an inclusive manner to materials that were used historically and to the modern composite and synthetic materials. Neither the Secretary of the Interior’s Standards nor the NPS Preservation Brief 16 provide a definition for imitative or substitute materials.

Further variation in the terminology referring to imitative substitute materials is found in the design guidelines developed by Certified Local Governments (CLGs) for their use in the NHPA compliance process. CLG design guidelines demonstrate a significant variation in terms used for this concept including: “alternative materials,” “replacement materials,” “artificial materials,” and “contemporary materials.”

The term *imitative substitute building materials* is a standardized term developed, defined, and used expressly for the purposes of this Program Comment. The term *imitative substitute building materials* incorporates the concepts and terms of reference from the Secretary of the Interior’s Standards and NPS Preservation Brief 16 into a single inclusive term with a clear definition to ensure the correct application of the concept within the context of this Program Comment. The Senate Armed Services Committee in their Report for Senate Bill 4049, FY 2021 National Defense Authorization Act, Title XXVIII, Subtitle

E, “*Improvements to the management of historic homes*” uses the Secretary of the Interior’s Standards term “imitative materials” and follows the definition developed by the Army for imitative substitute building materials.

3.0 Benefit of the Program Comment

By following the Program Comment, the Army meets its NHPA Section 106 and Section 110 responsibilities in a manner that maintains the historic and architectural character of Army Inter-War Era historic housing while ensuring the quality of life, health, and safety of military families.

Through implementation of management actions in accordance with the Program Comment, the Army will address health and safety risks associated with lead-based paint, asbestos, and other hazards, for thousands of military families living in Inter-War Era historic housing; fully implement improvements to military family housing that previously were not possible; and provide a more efficient and effective NHPA compliance process. The Program Comment ensures that NHPA compliance is fully integrated as part of the solution to some of the Army’s most significant issues affecting the overall well-being of military families living in historic housing.

4.0 Events Leading to the Program Comment

4.1 Identification of Issues

In August 2018, the Reuters news agency published a special investigative report regarding children poisoned by lead-based paint on U.S. Army installations. Historic building materials containing lead-based paint in Army Inter-War Era housing were identified as the source of the lead. In February 2019, an *Army Housing Crisis* was declared by the Secretary of the Army in response to widespread reports of these and other conditions

impacting military families living in Army housing. These reports gained significant attention from senior Department of Defense (DoD) officials as well as Members of Congress who heard testimony from military family members indicating significant issues associated with the quality of life, health, and safety conditions in housing. In response to these issues, the Army Inspector General (IG) conducted an investigation and issued a report on Army housing (IG Report) in March 2019.

The IG Report found that historic housing is more costly to operate, maintain, and renovate, entails special historic building materials and craftsmanship, involves health and safety concerns such as lead paint and asbestos, and entails the application of strict review processes in the PAs developed under NHPA Section 106 regulations for historic housing that are highly procedural, time consuming, and with variable application of standards. Accordingly, the IG Report recommended that the Army assess the feasibility of continuing the installation-specific PAs and prepare a cost/benefit analysis to address historic housing cost issues.

4.2 Assessment of Installation PAs

In order to assess the feasibility of continuing operations under installation-specific PAs, the Army FPO obtained and reviewed 27 installation PAs and amendments that are currently in effect and pertain to the management of historic Army housing. The housing PAs were first executed 16 years ago to support the privatization of housing, and some have subsequently been amended. The housing PAs were prepared following a template developed by the Army in coordination with the ACHP, so the PAs have similarities in their overall structure and management approach.

The PAs in general specify the requirement that every proposed management action follow the project-by-project review procedures that are detailed in each PA. The PA review procedures include submission of every proposed historic housing project by the housing privatization partner for review by the installation cultural resources management staff and SHPO. The PAs require that all management actions follow the Secretary of the Interior's Standards for the Treatment of Historic Properties. When those Standards are not followed, or if a demolition is proposed, an *adverse effect* determination is made. At that point, the PAs do not address adverse effects any further beyond their requirement that each adverse effect must be consulted on separately, under the individual project review procedures in 36 CFR 800.3 - 800.7. Once the adverse effect review is initiated, the individual project no longer falls under terms of the PA, and a separate consultation and Memorandum of Agreement (MOA) development is required.

The FPO received installation project-specific information and discussed operation under the PAs with installation-level housing privatization partners, garrison commanders, and Army installation housing representatives. Project-specific information pertaining to PA reviews, the resulting project costs, and process time were obtained by the FPO and discussed with representatives from the Army's Capitol Ventures Directorate, and Army Office of General Counsel. High costs for the maintenance, repair, and improvement of historic housing and the inability to fully implement projects to improve overall living conditions were observed to be generally due to the historic and in-kind building materials required by the PAs and their application of the Secretary of the Interior's Standards. In many cases, delays in quality of life, health, and safety remedies, and delays in occupancy of historic housing were attributed to lengthy project-by-project review procedures. It was also

observed that there is significant variability between different installation cultural resource managers and between different SHPOs regarding how they apply the Secretary of the Interior's Standards to the same property types. Additionally, the FPO identified the failure to fully eliminate lead-based paint hazards in historic housing when historic wood building materials such as historic windows are rehabilitated for reuse.

As a result of the historic housing PA review and assessment, the Army identified recurring, systemic issues associated with continued operation under installation PAs. In May 2019, the results of the assessment were presented, and a more strategic approach to historic housing issues was recommended to the Assistant Secretary of the Army for Installation, Energy and Environment (ASA IE&E). The approach included measures to strengthen oversight by the Army Secretariat for Section 106 compliance, establish an Army-wide programmatic approach to historic housing Section 106 compliance in lieu of the installation-specific PAs, and legislative relief if Section 106 programmatic approaches are unsuccessful.

4.3 Lifecycle Cost/Benefit Analysis

4.3.1 Introduction

The Army IG identified historic housing as costly to maintain and operate, and specifically identified the high costs of specialized building materials required such as custom windows and custom roofing, and the specialized craftsmen required to install and maintain these materials as cost drivers. The IG also identified the health and safety concerns associated with lead-based paint and other hazards found in historic housing. The Army IG recommended a cost benefit analysis to address the issues associated with historic housing.

The following cost/benefit analysis is focused on the lifecycle costs and benefits associated with three different types of building materials that have been used on Army Inter-War Era housing: 1) historic building materials that were rehabilitated and reused, 2) in-kind building materials, and 3) imitative substitute building materials. As defined in the Program Comment, historic building materials are building materials that are 50 years old and older; in-kind building materials are new building materials that are identical to historic building materials in all possible respects, including their composition, design, color, texture, and other physical and visual properties; and imitative substitute building materials are modern, industry standard, natural, composite, and synthetic materials that simulate the appearance of and substitute for more costly historic building materials and in-kind building materials.

The analysis provides a quantitative and qualitative assessment of various factors. The analysis compares lifecycle quantitative and qualitative factors associated with rehabilitated historic windows, in-kind wood windows, and vinyl windows used on Inter-War Era housing. The analysis also compares the lifecycle quantitative and qualitative factors for in-kind natural stone slate roofing and synthetic slate roofing used on Inter-War Era housing. The costs used in this analysis are actual cost estimates and expenditures on Army Inter-War Era housing from two installations in the eastern United States that were incurred within the last 5 years for all analyzed categories of windows and roofing materials. All costs are expressed in current dollar values and the dollar values are rounded for ease of calculation and understanding.

4.3.2 Analytical Approach

The quantitative analysis includes the initial total costs for each type of building material, and compares the initial total costs of the building materials with their total benefit in terms of the years of expected service, i.e., their lifecycle. That comparison is expressed as a ratio, the dollar cost/unit : number of years of service.

The costs used in the quantitative analysis are the actual costs per unit for each material. The costs per window for rehabilitated historic windows are the costs associated with their rehabilitation which includes window removal, dip stripping in solvent to remove paint (typically lead-based paint), chemical rinsing, drying, repair, re-painting, and re-installation. The costs for in-kind windows include the costs and installation of new in-kind windows and the removal and disposal of old windows. The costs for vinyl windows include their cost and installation, and removal and disposal of old windows. The costs used for in-kind natural stone slate roofing and synthetic slate roofing are the costs per square foot for each material, installed.

The knowledge base regarding the long-term performance of historic building materials, in-kind materials, and imitative substitute materials is underdeveloped. An estimate of the years of service or “service-life” for historic building materials, in-kind building materials, and imitative substitute materials is required due to the lack of systematically collected, quantifiable, lifecycle data regarding the longevity of any of these materials. Estimated years of service used in this analysis for historic building materials are based on best available information. Estimated years of service for in-kind building materials and imitative substitute building materials are based on the manufacturer’s material replacement warranty period.

The service-life estimates used in this analysis for windows are: rehabilitated historic windows = 100 year service-life, wood in-kind windows = 20 year service-life/manufacturer's warranty, and vinyl windows = 40 year service-life/manufacturer's warranty. The 100 year service-life for rehabilitated historic windows assumes that a rehabilitated historic window will have a service-life of 100 years before it requires a second rehabilitation.

The service-life estimates used for roofing are in-kind natural stone slate roofing = 125 year service-life, and synthetic slate roofing = 50 year service-life manufacturer's warranty. The lifecycle of natural stone slate roofing is usually assumed to be from 75 years to 150+ years before the roof will require significant restoration or replacement. The estimated average service-life of 125 years used in this analysis is based on the type of stone used historically, and the type of stone that is currently available which vary in hardness or quality from slate that was available historically.

Historic building materials, in-kind building materials, and imitative substitute building materials service-life may all be greater or less than the estimates used for the purpose of this analysis. The lack of systematically collected and quantifiable data regarding the long-term performance of historic building materials, in-kind materials, and imitative substitute materials is a long-standing issue in historic preservation, and necessitates estimation of those values.

The qualitative factors addressed in this analysis include the health risk of lead-based paint exposure (windows only), the maintenance and repair considerations for the various materials, and the cultural and public use values. Cultural and public use values relate to the value of maintaining the integrity of historic properties to the maximum extent possible

considering the potential for public visitation and the resulting economic benefit to the surrounding community from enhanced tourism associated with the historic properties. The energy efficiency among the various building materials is held as constant and equivalent factor for the purposes of this analysis.

4.4.3 Rehabilitated Historic Windows, In-kind Windows, and Vinyl Windows

The Army rehabilitated all historic windows on 43 Inter-War Era historic housing units using the dip stripping method. Each historic window was carefully removed, the windows were then sent to a specialist who dipped the windows in solvent to chemically remove the paint layers. The stripped windows were then chemically rinsed, allowed to dry, repaired, repainted, and re-installed at the housing unit. The cost to rehabilitate the historic windows was \$2,500 per window. There is no warranty period provided for the rehabilitated historic windows.

The Army installed in-kind replacement windows on 127 Inter-War Era historic housing units. The in-kind windows are identical to the historic windows that they replaced to the greatest extent possible including all aspects of their composition and design. The in-kind windows are true divided light windows where the multiple panes of glass in each window are individually separated by muntins (as opposed to simulated divided light windows that have one pane of glass with removable muntins or grille attached to the glass), and other visual properties. The in-kind windows cost \$1,500 each installed (including removal and disposal of the existing window), and have a 20 year manufacturer's replacement warranty.

The Army installed vinyl replacement windows on 202 Inter-War Era historic housing units. The vinyl windows are made from a synthetic building material and simulate

the appearance of the historic windows. The vinyl replacement windows are the same double hung window type as the historic windows; have the same overall dimensions including height, width, and depth as the historic windows; and are the same color as the historic windows. The vinyl replacement windows cost \$500 each installed (including removal and disposal of the existing window), and have a 40 year manufacture's replacement warranty.

Quantitative factor analysis:

Historic rehabilitated windows: cost \$2,500 per window with a service-life estimate of 100 years. $\$2,500 \text{ per rehabilitated historic window} : 100 \text{ years of service} = 25:1$ cost/benefit ratio. Wood in-kind replacement windows: cost \$1,500/window, with a service-life estimate of 20 years. $\$1,500 \text{ per in-kind window} : 20 \text{ years} = 75:1$ cost/benefit ratio. Vinyl replacement windows: cost \$500 per window with a service-life estimate of 40 years. $\$500 \text{ per vinyl window} : 40 \text{ years of service} = 12.5:1$ cost/benefit ratio. The cost to service-life ratio indicates that the vinyl window costs \$12.50 for each year of service, wood in-kind windows cost \$75 for each year of service, and rehabilitated historic windows cost \$25 for each year of service.

Rehabilitated historic windows cost \$2,500 for an estimated 100 years of service. Factoring replacement of vinyl windows at their 40 year warranty period, the cost to obtain 100 years of service from vinyl windows is \$1,250 per vinyl window ($\$500/\text{vinyl window} \times 2.5 \text{ 40 year replacements} = \$1,250 \text{ for 100 years of service}$). Vinyl windows require one-half the cost of historic rehabilitated windows to obtain the same 100 year period of service.

Factoring replacement of in-kind windows costing \$1,500 each at their 20 year warranty period, the cost to obtain 100 years of service from in-kind windows is \$7,500 per

window (\$1,500/in-kind window x 5 20 year replacements = \$7,500 for 100 years of service). In-kind wood windows cost six times more than vinyl windows to obtain the same 100 years of service. The inferior quality of the wood available for use in manufacturing modern in-kind windows is an industry-identified issue. As indicated by the manufacturer's warranty periods, the imitative substitute vinyl windows are more durable and are more cost effective than the in-kind windows.

Qualitative factor analysis:

Health and Safety Risk: The health risk to children from lead-based paint exposure is a significant qualitative factor. Vinyl replacement windows and in-kind replacement windows entirely eliminate the lead exposure risk. With historic rehabilitated windows, the lead exposure risk to children is lowered but not eliminated. The dip stripping method for historic window rehabilitation allows lead to enter the wood grain itself, and that lead can eventually re-appear as lead dust with window use, wear, and weathering².

Maintenance and Repair: Vinyl windows require minor maintenance, and the repair cost due to glass breakage is low for standard replacement glass. However, vinyl is susceptible to expansion due to heat. In-kind wood windows require periodic maintenance including repainting and are very susceptible to rot and insect infestation. Historic rehabilitated windows require continuous maintenance and painting to maintain a low lead risk and glass breakage repair costs are higher due to the custom glass replacement required.

Cultural and Public Use Value: The vinyl windows that were used in the Inter-War Era housing are imitative substitute building materials that were selected to simulate the

² *A Brief Description of the Abatement of Lead-Based Paints from Building Components and Potential Consequences of the Persistent Contamination of Lead in These Materials After Abatement*, Jason R. Dorvee, Ph.D., Associate Technical Director, Research Materials Engineer, United States Army Corps of Engineers, Engineering Research and Development Center, Construction Engineering Research Laboratory, October 2019

original historic building material. The similar appearance, style, and dimensions of the vinyl windows to the original historic windows maintains the overall historic appearance and character of the historic housing, but vinyl windows do not fully maintain historic integrity since the historic windows are not retained. In-kind windows are designed to be indistinguishable from the historic windows that they replace to the greatest extent possible, but do not fully maintain historic integrity since they also replace the historic windows. Rehabilitated historic windows reuse historic building materials, and fully maintain the historic integrity of the housing. Because general public access to Army installations is restricted, and access to military family housing areas on Army installations is further restricted to resident's only, public visitation of Army family housing areas is low. There is not a significant public use value associated with maintaining military housing historic integrity to the maximum extent possible since visitation by the general public is not usually allowed. There is a low related economic benefit to the surrounding community associated with maintaining historic military housing integrity to the maximum extent since there is no general public access to military housing for tourism purposes.

Windows Cost/Benefit:

Based on the factors applied and the results of this analysis, vinyl windows present a greater overall lifecycle cost/benefit value than rehabilitated historic windows or in-kind windows. Vinyl windows also have a significantly lower initial cost than in-kind windows or rehabilitated historic windows. In terms of their lifecycle, for one-half the cost of historic rehabilitated windows and in-kind windows, vinyl windows deliver the same 100 year period of service from historic rehabilitated windows. Vinyl windows have lower anticipated maintenance and repair costs than in-kind or historic windows. Vinyl windows

and in-kind windows both eliminate the lead poisoning hazard, whereas rehabilitated historic windows only reduce the lead exposure risk.

The initial cost of in-kind windows is three times higher than vinyl windows, and the in-kind windows are less durable with a 20 year warranty as compared to the 40 year vinyl window warranty. In-kind windows have a higher anticipated maintenance and repair cost. Rehabilitated historic windows cost five times the initial cost of vinyl windows, and in the long-term cost twice as much as vinyl windows for the same 100 year service period. Rehabilitated historic windows do not eliminate the lead poisoning hazard, have no warranty, have a higher anticipated maintenance and repair cost, and fully maintain historic integrity. The cultural and public use values associated with maintaining historic integrity is low since military housing has restricted public access.

4.3.4 In-kind Natural Stone Slate Roofing and Synthetic Slate Roofing

The Army installed synthetic slate roofing materials on 76 Inter-War Era historic housing units. The synthetic slate roofing was installed on new additions to existing Inter-War Era housing with natural stone slate roofing. The cost estimate received for in-kind natural stone slate roofing on the additions was \$50 per square foot, installed. The cost for synthetic slate roofing was \$10 per square foot, installed, with a 50 year materials replacement warranty. The synthetic slate is a composite imitative substitute material that simulates the historic natural stone slate roof appearance. Synthetic slate simulates the overall design of natural stone slate shingles in its dimensions including height, width and depth; and the color and texture imitates weathered slate roof materials.

Quantitative Factor Analysis:

Synthetic slate: \$10/sqft with a service-life estimate of 50 years = 1:5 cost/benefit.

In-kind natural stone slate: \$50/sqft with a service-life estimate of 125 years = 1:2.5 cost/benefit. Synthetic slate costs \$1 for each 5 years of service. Natural stone slate costs \$1 for each 2.5 years of service. Factoring replacement of synthetic slate every 50 years, the cost to obtain 125 years of service from synthetic slate is \$25 per square foot, one-half the cost of natural stone slate for the same 125 year period of performance.

Qualitative factor analysis:

Maintenance and Repair: Natural stone slate entails higher cost for materials and specialized craftsmen are required for repairs to slipped and broken slates, and for flashing replacement. The flashing materials used with natural stone slate typically do not last as long as the slate itself and require replacement more frequently, as often as every 20 years. Flashing replacement entails removal and reinstallation of the natural stone slate roofing materials in the areas where the flashing is replaced. The cost to repair and replace individual damaged synthetic slates is low, replacement materials are low cost and readily available, and no specialized craftsmen are required for repairs, to include flashing replacement.

Cultural and Public Use Value: Synthetic slate is not a historic building material so does not fully maintain historic integrity. As an imitative substitute material however, it conveys the overall historic appearance of a historic slate roof building, it simulates the overall design of natural stone slate shingles in its dimensions, color, and texture. Use of natural stone slate fully maintains the historic integrity of the building. Because general public access to Army installations is restricted, and access to military family housing areas on Army installations is further restricted to resident's only, public visitation of Army family housing areas is low. There is not a significant public use value associated with

maintaining military housing historic integrity to the maximum extent possible since visitation by the general public is not usually allowed. There is a low related economic benefit to the surrounding community associated with maintaining historic military housing integrity to the maximum extent since there is no general public access to military housing for tourism purposes.

Roofing Materials Cost/Benefit:

Synthetic slate has a 50 year replacement warranty, has lower initial cost and lower anticipated maintenance and repair costs, does not fully maintain historic integrity, but maintains the overall historic appearance by means of its shape, color, and texture that simulates natural stone slate. In-kind natural stone slate has a significantly higher initial cost and higher anticipated maintenance and repair costs for materials and specialized craftsmen. Natural stone slate fully maintains historic integrity however, there is a low cultural and public use value associated with maintaining historic housing integrity to maximum extent. For one-half the cost of natural stone slate, synthetic slate delivers the same overall appearance and 125 year period of performance.

4.3.5 Cost/Benefit Analysis Summary

The results of this cost/benefit analysis for Army Inter-War Era historic housing building materials indicate that, in consideration of the lifecycle, quantitative, and qualitative factors, the analyzed imitative substitute building materials deliver a better short-term and long-term lifecycle cost/benefit solution than rehabilitated historic building materials or in-kind building materials. Due to the initial lower costs of the imitative substitute building materials, their use in historic Inter-War Era housing resulted in an immediate project cost savings when compared to both the rehabilitated historic building

materials and in-kind building materials. Imitative substitute building materials lowered the direct project costs and resulted in an immediate financial benefit for the project when compared to more costly historic building materials and in-kind building materials.

The long-term, lifecycle analysis of both windows and roofing indicates that, for one-half the cost of the rehabilitated historic building materials and in-kind building materials, the imitative substitute building materials will deliver the same 100 year and 125 year service-life, respectively. The qualitative analysis in both cases indicates that imitative substitute building materials eliminate lead-based paint hazard, have a lower expected long-term maintenance and repair requirements and, due to the restricted access to military family housing areas on Army installations, the cultural and public use value and economic benefit to the surrounding community associated with maintaining historic building integrity to the maximum extent is low. Based on these results, the imitative substitute building materials analyzed provide a better overall, long-term value for the management of Inter-War Era housing.

In summary, the results of this cost/benefit analysis for Army Inter-War Era historic housing indicate that, in consideration of lifecycle, quantitative, and qualitative factors, the imitative substitute building materials analyzed deliver a better lifecycle cost/benefit solution than rehabilitate historic building materials or in-kind building materials. The results of this analysis indicate that the expanded use of imitative substitute building materials for Army Inter-War Era housing may achieve a significant lifecycle cost benefit for the Army. This analysis also acknowledges that data regarding the long-term performance of in-kind building materials and imitative substitute building materials is

underdeveloped. This data gap is being addressed in the Program Comment by lifecycle data tracking and reporting on a number of these materials used in Inter-War Era housing.

5.0 Army Response to Historic Housing Issues

In response to the Army Housing Crisis, Army IG findings regarding historic housing and subsequent PA assessment and cost/benefit analysis, the ASA IE&E issued a *Strategic Agenda for Army National Historic Preservation Act Improvement* (Army NHPA Strategy) on 26 July 2019. The Army NHPA Strategy directed the Army FPO to pursue a programmatic NHPA compliance solution for historic Army housing. The ASA IE&E provided the Army NHPA Strategy to the ACHP's Executive Director by letter dated 26 July 2019. In that letter, the ASA IE&E requested ACHP support for the Army NHPA Strategy, indicated that the Army FPO had been directed to pursue a programmatic NHPA compliance solution with the ACHP for historic Army housing, and requested an engagement with ACHP Chairman to further discuss implementation of the agenda.

In August 2019, a "DoD Privatized Military Housing and Historic Preservation Workshop" (workshop) was sponsored by the Office of the Secretary of Defense (OSD). Senior representatives from the OSD, the Army, the other military departments, DoD privatized military housing partners (responsible for the day-to-day operation and management of the majority of military family housing for the military departments), the ACHP, and the National Conference of State Historic Preservation Officers (NCSHPO) were in attendance. During the workshop, numerous issues were identified by the privatized housing partners regarding NHPA compliance and historic housing. The issues identified included: the high costs of historic building materials and in-kind building materials and high costs of specialized craftsmen to install and maintain those materials; the high degree

of variability between State Historic Preservation Officers (SHPOs) and between installations regarding how the Secretary of the Interior's Standards for the Treatment of Historic Properties are applied to similar property types; the time consuming, project-by-project reviews under installation PAs; the partners' fixed incomes based on military housing allowances that are set with no differential for the added costs of historic preservation requirements; and the impacts of historic preservation costs and processes on the partners' ability to complete housing improvements and provide timely housing occupancy for military families. The NHPA-related historic housing issues identified by the DoD's privatized housing partners align with the Army IG findings, PA assessment, and cost/benefit analysis. The concept for the Program Comment was first formally presented at this workshop by the Army FPO.

Internal Army planning meetings regarding historic housing and the Program Comment occurred in September 2019, including a nation-wide video teleconference with Army Garrison Commanders, and a briefing to Pentagon-level senior Army leaders. During the senior leader briefing, the Director of the Army Staff along with the Principal Officials of Headquarters, Department of the Army (HQDA) were briefed on the Program Comment proposal, effects, and schedule.

The Army NHPA Strategy directed the Army FPO to pursue a programmatic NHPA compliance solution for historic Army housing. The Program Comment approach had been successfully used by the Army in the past to address another, larger category of historic housing. In 2002, the ACHP approved an Army requested Program Comment addressing its large inventory of Capehart-Wherry Era (1949-1962) historic housing. Accordingly, this Army Inter-War Era (1919-1940) Program Comment was developed following the

precedent set by the Program Comment for Army Capehart-Wherry Housing. Army Inter-War Era housing is also a focal point of the Army Housing Crisis. Historic building materials in Inter-War Era housing that contained lead-based paint caused the lead poisoning of children from military families residing in that housing. Inter-War Era housing is also the largest remaining single category of Army historic housing that has not previously been addressed on a nation-wide NHPA programmatic basis.

The Army has a significant nation-wide perspective on its inventory of historic housing. This is due to an extensive existing set of historic context documentation and recordation of its historic housing, including Inter-War Era housing, that is contained in the following research materials: *Context Study of the United States Quartermaster General Standardized Plans 1866-1942*; *A Study of United States Army Family Housing Standardized Plans, Volumes 1-5*; and *National Historic Context for Department of Defense Installations, 1790-1940, Volumes 1-4*. The Program Comment approach for Inter-War Era housing was informed by the aforementioned critical issues associated with the Army Housing Crisis, the Army IG findings and subsequent assessments, the Army NHPA Strategy, the precedent of a prior Program Comment for historic Army housing, and the extensive set of existing documentation for its historic housing that provides a nation-wide perspective.

6.0 Program Comment Notifications, Public Participation, and Consultation

6.1 Notification

On 18 September 2019, a meeting was held between the Chairman of the ACHP, the Executive Director of the ACHP and senior ACHP staff members, the ASA (IE&E), and the Army FPO to review and discuss the Army's proposal for the Program Comment as a

potential solution to the issues associated with Army Inter-War Era housing. Based on the positive outcome of that meeting, the Army FPO provided formal notification to the ACHP of the Army's intent to seek a Program Comment for Army Inter-War Era housing on 19 September 2019. On 25 September 2019, the Army FPO received acknowledgement from the ACHP's Executive Director regarding the Army's notice of intent for the Program Comment indicating that the ACHP was ready to consult with the Army and key stakeholders on the development and submission of the Program Comment.

The Army then provided formal notifications of its intent to request a Program Comment for Inter-War Era housing to national-level, non-governmental historic preservation advocacy organizations. Notifications were provided to the NCSHPO, the National Trust for Historic Preservation (NTHP), and the National Association of Tribal Historic Preservation Officers (NATHPO) on 23 September 2019. The Army held initial consultation meetings on the Program Comment with NTHP on 25 September 2019, with NCSHPO on 30 September 2019, and with NATHPO on 9 October 2019. The Army also provided a briefing regarding the Program Comment's purpose, intent, process, and schedule to the ACHP membership on 6 November 2019.

6.2 Public Participation and Consultation

On 15 October 2019, the Army activated a public website for the Program Comment at <https://www.denix.osd.mil/army-pchh/home/>. The Army's Inter-War Era Housing Program Comment website hosts technical and administrative documents, consultation conference information, and status reports to the ACHP.

On 16 October 2019, a series of nine nation-wide consultation conference calls were initiated by the Army FPO. The Army FPO published an open invitation to consultation on

the Program Comment consultation to key stakeholders and members of the interested public on the Program Comment website. The Army FPO also directly invited over 900 individuals representing key stakeholder organizations to each of the nine consultation conferences including representatives from: all State Historic Preservation Offices (SHPO), all Tribal Historic Preservation Offices (THPOs), all Federally-recognized Indian Tribes (tribes), 36 Native Hawaiian Organizations (NHOs), non-governmental historic preservation advocacy organizations (NTHP, NCSHPO, NATHPO, Historic Hawaii Foundation), and the ACHP. The nine nation-wide consultation conference calls were held from November 2019 through June 2020. Each consultation conference included a briefing by the Army FPO on a major topic in the Program Comment, followed by extensive discussions, questions, answers, and FPO commitments and follow-on actions.

On 28 October 2019, the Army published a notice in the Federal Register (FR) (84 FR 57707) of its intent to request the Program Comment from the ACHP in accordance with NHPA Section 106 and 36 CFR 800.14(e). The Army also provided notification to Congress regarding the Program Comment including the House Armed Services Committee (HASC) and the Senate Armed Services Committee (SASC). The FR notification was also accompanied by a nation-wide Army media release. Both the FR notification and the nation-wide media release solicited comments from the public on the Army's intent to request the Program Comment from the ACHP. The Army FPO's contact information was provided, and the FR announcement included supplementary information regarding the intent of the Program Comment, the nature of the historic housing to be addressed, the category and details of the *management actions* undertaking, proposed treatment measures for mitigation purposes, and information regarding the notifications to key stakeholders that had been

made as of that date. The public was asked to submit comments during a 45-day public comment period established by the FR notification. As result of these public notification efforts, the Army received five public comments: three from individuals at SHPO offices (Virginia, Washington, and North Carolina); one from the NTHP; and one from a private citizen. All public comments were addressed, many were incorporated into the Program Comment, and all comments and Army response are included in the Army's Administrative Record for the Program Comment provided to the ACHP and available on the Program Comment website.

The nine consultation conference calls held from November 2019 through June 2020 covered all major aspects relating to the Program Comment including Army privatized housing operations, undertaking and property types, treatment measures and effects, housing design guidelines, demolition, properties of particular importance, public education materials, treatment measure monitoring and reporting, imitative substitute building materials catalog, and a summary of issues addressed and review of the entire consultation process. All required materials for each call were posted on the Army's Inter-War Era Housing Program Comment public website in advance of each conference call and all consulting parties were notified in advance of each call. There were no limitations on the number of conference participants or length of the conference calls. The Army FPO indicated during the conference calls that comments from any interested party on any aspect of the Program Comment were welcome by email, letter, or phone call, could be submitted at any time, and that the consultation conference calls were open invitation to all interested parties.

During the Program Comment consultation period, the Army FPO personally had in total over 8,100 direct, electronic, and telephonic consultations with individual historic preservation stakeholders regarding all aspects of the Program Comment. Coordination efforts associated with the Program Comment internal to the Army were also made during this period including numerous electronic and telephonic interactions with commands and installation commanders, and through direct briefings by the Army FPO at the Army world-wide Garrison Commander's Conference in November 2019, and at an Army Residential Communities Initiative (RCI) Partner Conference in February 2020.

On 5 February 2020, the Army provided a briefing to Professional Staff Members (PSMs) from relevant Congressional Committees (SASC and HASC) regarding the Program Comment and imitative substitute building materials. On 17 March 2020, the SASC made a formal request to the OSD for legislation drafting services to authorize the military departments' use of imitative substitute materials and to provide standalone authority to the military departments for demolition of historic housing. The OSD provided a response to the SASC legislative drafting service request on 9 April 2020.

6.3 Consultation Issues and Their Resolution

The Army responded to all concerns and comments expressed by consulting parties during its Program Comment consultation process. Full documentation of the Army's complete consultation effort and its responses to consulting party comments and issues is included in the Administrative Record for the Program Comment.

The Army addressed consulting party concerns regarding Design Guidelines content, imitative substitute building material use, and inclusion of demolition and new construction in the Design Guidelines and the Program Comment during its consultation process. To

address the Design Guidelines content, the Army provided a first, second, and third (final) draft version of the Design Guidelines to all consulting parties for review. The reviews resulted in a total of 415 comments from 11 consulting parties. Every comment was addressed by the Army FPO and the responses posted on the Army's Inter-War Era Housing Program Comment website for public review. The Army also provided a draft Building Materials Catalog for consulting party review and comment. The Army received 126 comments on the Building Materials Catalog from 5 consulting parties, each comment was reviewed and addressed, and the Building Materials Catalog was revised and finalized. The Administrative Record contains the comments and responses for the Design Guidelines and the Building Materials Catalog, and all documents are posted on the Program Comment public website.

To address the use of imitative substitute building materials and in response to consulting party requests, the Army developed a Building Materials Catalog and a detailed step-by-step process for the consideration of all building materials including historic, in-kind and imitative substitute materials in the selection process. Consulting parties also requested that the Army develop a process to track the lifecycle of in-kind and imitative substitute building materials. In its cost/benefit analysis, the Army identified that the knowledge base regarding the long-term performance of those building materials is underdeveloped. An estimate of the years of service for in-kind building materials and imitative substitute materials was required in the cost/benefit analysis due to the lack of systematically collected, quantifiable, lifecycle data regarding the longevity of these materials. In response to the overall lack of quantifiable, lifecycle data regarding the longevity of these materials and to comply with consulting party requests, the Army

developed and presented a building materials lifecycle tracking process to consulting parties for review and discussion during a consultation conference call. Based on Army and consulting party agreement, specific in-kind and imitative substitute building materials lifecycle tracking and reporting will occur on over 300 housing units during the next 35 years. In-kind and imitative substitute material lifecycle tracking and reporting is included as a treatment measure in the Program Comment.

To address the inclusion of demolition in the Design Guidelines and Program Comment the Army held an additional conference consultation, and an additional face to face consultation with consulting parties to specifically discuss a Program Comment-based process that could lead to demolition of underused, vacant, and deteriorated family housing units. As a result of these consultations, the Army developed extensive demolition procedures within the Design Guidelines, and included a step-by-step process in the Program Comment.

The Program Comment and the Design Guideline for demolition require the preparation of a Building Disposition Report that includes and provides for: consideration of the full range of reasonable alternatives to demolition, a 30 day review and comment period by the public and relevant SHPO, Indian tribes and NHOs, protection of adjacent properties, historic property discovery procedures, salvage of significant architectural elements for reuse in similar housing units, and photographic documentation to National Park Service specifications for digital photography provided to the SHPO. The Program Comment demolition procedure also includes a provision for the public and relevant SHPO, Indian tribes and NHO to identify any major deficiency in following the requirements, further coordination to resolve the deficiency, and the ability to appeal to the ACHP for review and

comment if the deficiency is not adequately resolved. The Building Disposition Report and all other relevant materials must be submitted as part of a Major Decision package to Headquarters, Department of the Army for concurrence by the Army FPO, and final approval by the Deputy Assistant Secretary of the Army for Installations, Housing, and Privatization, or an equivalent of higher authority.

The Army was also responsive to consulting party comments and requests regarding the Design Guideline for new construction and replacement construction. As a result of that consultation, new construction and replacement construction within Inter-War Era neighborhoods will be designed and sited in a manner that preserves the historic character of the neighborhood. The Design Guideline for new construction and replacement construction specifies that it will be compatible with the mass, form, character-defining features and architectural style of the existing historic housing, associated buildings and structures, and landscapes, and will be constructed so as not to completely obstruct views out from or in to any historic district(s). New and replacement construction will also maintain compatibility of the front elevation with the scale, setback, and spacing of the surrounding historic housing.

On 20 May 2020, the Army FPO provided a Program Comment update and status report to the ACHP membership. The status report identified consulting party concerns that arose during consultation and discussed how the Army had addressed those concerns.

The SASC continued to exercise its oversight and monitoring of military housing issues including historic housing. On 26 June 2020, the SASC Report accompanying Senate Bill 4049 FY 2021 National Defense Authorization Act, Title XXVIII, Subtitle E, *“Improvements to the management of historic homes”* was issued. In this committee

oversight report, the SASC addressed the issue of DoD's historic housing, and the use of imitative materials to address DoD historic housing costs and lead-based paint issues. The SASC report encourages the DoD to use imitative building materials in the repair, rehabilitation, and renovation of historic housing. The SASC report asserts that maintaining and repairing historic housing, defined as more than 50 years old, is costly and time-consuming for the military services and military families, and often requires the use of original historic building materials. The SASC report uses and defines the term *imitative materials* as modern, natural, composite, and synthetic materials, and expresses the understanding that these are industry standard materials and can simulate the appearance of and substitute for more expensive historic building materials. The SASC report identifies imitative materials as a priority for use to replace historic building materials that pose a potential lead-based paint hazard. Finally, the SASC report indicates that with proper planning, imitative materials can maintain the historic and architectural appearance of historic housing.

7.0 Conclusion

Army is faced with the extraordinary challenge of managing what is by far, the largest inventory of historic housing in the federal government. The magnitude of this singular challenge presents the Army and the ACHP with both the opportunity and the responsibility to shape historic preservation program alternatives in new and innovation ways. The Inter-War Era housing Program Comment meets this uniquely Army challenge, with a truly balanced focus on historic preservation and the wellbeing of our Soldiers and their families.

This Program Comment is an exceptional, highly coordinated, and measured approach to historic housing management. It provides specific criteria, detailed procedures, important new

publically available information such as the lifecycles of building materials, and numerous other treatment measures. The Program Comment makes certain that the historic and architectural character of Inter-War Era housing is preserved, and any effects of Army management actions are addressed in a mutually agreed upon manner.

This Program Comment ensures the preservation of this housing and directly contributes to improvement of the quality of life, health and safety for the thousands of military families who live in Army Inter-War era housing. With this Program Comment, the ACHP is part of the solution to the Army's most critical military family housing issues.

SECTION II. TEXT OF THE PROGRAM COMMENT FOR DEPARTMENT OF THE ARMY INTER-WAR ERA HISTORIC HOUSING, ASSOCIATED BUILDINGS AND STRUCTURES, AND LANDSCAPE FEATURES (1919–1940)

1.0. Introduction

This Program Comment for Department of the Army (Army) Inter-War Era Historic Housing, Associated Buildings and Structures, and Landscape Features (1919-1940) (Program Comment) provides the Army with an alternative means to comply with Section 106 of the National Historic Preservation Act (NHPA), 54 U.S.C. 306108, and its implementing regulations at 36 CFR Part 800 (Section 106) regarding management of its Inter-War Era housing, associated buildings and structures, and landscape features (hereinafter referred to as Inter-War Era housing). Section 106 requires federal agencies to take into account the effects of projects they carry out, license, or assist (undertakings) on historic properties, and to provide the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment with regard to such undertakings. The ACHP has issued the regulations that set forth the process through which federal agencies comply with these duties. Those regulations are codified under 36 CFR Part 800 (Section 106 regulations).

Under Section 800.14(e) of those regulations, agencies can request the ACHP provide “program comments” on a category of undertakings that may have adverse effects. An agency can meet its Section 106 responsibilities with regard to the effects of those undertakings by following the steps set forth by the ACHP in a program comment, in lieu of conducting individual reviews of those undertakings as set forth in 36 CFR 800.3 - 800.7

In managing the largest inventory of historic housing in the federal government, the Army has an obligation to Soldiers and their families to provide housing that is safe, healthy, and

affords the quality of life that is owed to our Soldiers and their families. The Army's obligation to military families, in the context of management of this large inventory of historic military housing, presents the Army with unique and significant challenges including: providing for the well-being and quality of life for our Soldiers and their families living in historic housing; managing maintenance and repair costs for the large historic building inventory; addressing historic building materials that present lead-based paint, asbestos, and other hazards to housing occupants; rapidly turning around homes for reassigned military families in the context of the project-by-project review processes under 36 CFR 800 and the Section 106 Programmatic Agreements (PAs) at each installation; and preserving the historic and architectural character of its historic housing, associated buildings and structures, and landscape features.

In order to ensure positive historic preservation outcomes, the Program Comment requires the Army to implement management actions for Inter-War Era housing following the *Design Guidelines for Army Inter-War Era Historic Housing (1919–1940) (Appendix A)* (Design Guidelines), and the *Building Materials Catalog for Army Inter-War Era Historic Housing (1919–1940) (Appendix B)* (Building Materials Catalog), and also requires other treatment measures.

2.0 Program Comment Intent, Scope, and Definitions

2.1 Statement of Intent

The intent of this Program Comment is to address the Army's National Historic Preservation Act (NHPA) compliance requirements by establishing procedures for management of the Army's nation-wide inventory of over 3,200 Inter-War Era housing units that balance historic preservation requirements with the Army's responsibility to provide the thousands of

military families who live in this historic housing with the quality of life, health, and safety they require.

In balancing the management of its Inter-War Era housing with historic preservation requirements, the Program Comment includes a set of management actions that address health and safety risks from historic building materials containing hazardous substances, the costs and benefits associated with various building materials, compliance process time, the material living conditions of historic housing, and the state of the Army's overall Inter-War Era housing inventory.

This Program Comment recognizes that standardized plans developed by the Army Quartermaster Corps were followed for the design and construction of the vast majority Army Inter-War Era housing, and that this housing is characterized by simplified architectural styles lacking character-defining design features often associated with the similar architectural styles ubiquitous in the civilian sector. In consideration of the standardized and simplified design of Army Inter-War Era housing, this Program Comment applies standardized criteria and approaches in the Design Guidelines and Building Materials Catalog, including step-by-step procedures for consideration and selection of appropriate building materials and for other activities associated with Inter-War Era housing management.

This Program Comment acknowledges that certain actions are required to improve the material living conditions for the military families who live in historic Inter-War Era housing such as: addressing restrictive floorplans and the need for additional bedrooms and expanded living space, expansion and improvement of kitchen areas, additional bathrooms and bathroom improvements, modernization of heating and ventilation systems, and modernization of plumbing and electrical systems and fixtures. This Program Comment also recognizes the

Army's need to manage the state of its overall inventory of Inter-War Era housing by at times, removing housing from its inventory (through demolition) that is deteriorated, underutilized and vacant, and/or presents potentially hazardous materials or unsafe conditions; and by replacing or adding housing to its inventory through the construction of compatible designed housing within existing Inter-War Era neighborhoods. This Program Comment ensures that the Army will maintain the historic character of Inter-War Era housing by implementing these and other management actions in accordance with established criteria and procedures in the Design Guidelines, Building Materials Catalog, and other Program Comment treatment measures.

The management actions addressed by this Program Comment directly improve the material living conditions and the quality of life, health and safety of the Army's Soldiers and families who live in Inter-War Era housing, while the treatment measures ensure the management actions are implemented in a manner that maintains the historic and architectural character of this housing or that minimize or mitigate any unavoidable adverse effects. The terms of this Program Comment make certain the Army will conduct Inter-War Era housing management actions in compliance with NHPA requirements and in balance with historic preservation considerations. In this manner, the intent of this Program Comment will be met and historic preservation will be integrated as part of the solution to some of the Army's most critical military family housing issues.

2.2 Scope

2.2.1 Summary

The scope of the Program Comment includes all Army Inter-War Era housing built between 1919 and 1940, with the exception of Army Inter-War Era housing formally designated by the National Park Service (NPS) as a National Historic Landmark (NHL) or as a contributing

property within an NHL District, and Inter-War Era housing at Fort Meade, MD that remains subject to a Deed of Easement (see Section 2.2.5). The Army will treat its inventory of Inter-War Era housing as historic properties as defined by the NHPA, for the purposes of this Program Comment.

2.2.2 Category of Undertaking and Assessment of Effects

The category of undertaking addressed by this Program Comment is *management actions*. Management actions are defined as maintenance, repair, rehabilitation, renovation, abatement, mothballing, demolition, replacement construction, new construction, and lease and conveyance. The Army will implement management actions using historic building materials, in-kind building materials, and imitative substitute building materials, as set forth in the Design Guidelines and Building Materials Catalog at Appendices A and B, respectively.

The Army's implementation of management actions and its use of imitative substitute materials on Army Inter-War Era housing may have an adverse effect on historic properties. The Army will implement the treatment measures in Section 3 to avoid, reduce, and mitigate the adverse effects of its management actions.

2.2.3 Description of Property Types

Standardized plans developed by the Army Quartermaster Corps were followed for the design and construction of the vast majority of Army Inter-War Era housing. Army Quartermaster Corps standardized plans reflected prevailing civilian architectural designs, construction techniques, and community planning trends of the time, with certain regional style variations and use of locally available materials. Army Inter-War Era housing falls into the categories of *Eclectic* and *Modern* houses and includes Colonial Revival, Spanish Colonial, Mission, Tudor, and Craftsman styles. Each style has its own particular character-defining design

elements that express the style. The predominating regional styles of Quartermaster Corps designed Inter-War Era housing are: Colonial Revival in the northeast, mid-Atlantic and northwest; Spanish Colonial in the southeast and southwest; and Colonial Revival, Mission, and Craftsman styles in Hawaii. Regional style variations among Quartermaster Corps designed Inter-War Era housing are exterior in nature; the interior layouts are generally similar and originally corresponded to military rank. The housing is manifest as single-family units, duplexes, quadplexes, and multi-unit apartment buildings.

Army Quartermaster Corps housing standardization was driven by cost and efficiency of construction, so that Army Inter-War Era housing is characterized by a simplified architectural style and lacks some of the more costly distinctive design features associated with similar architectural styles in the civilian sector. In addition, many have been modified over time and Army Inter-War Era housing may exhibit features of several different architectural styles in a single housing unit.

Following community planning trends of the time, the Army Quartermaster Corps also developed standardized plans for landscaping, neighborhood design and layout, circulation patterns, and the design of entire installations, all of which may now constitute or be part of a historic district or districts. The result of Army Quartermaster Corps standardization is that the same general housing designs, administrative buildings, landscapes, neighborhood designs, and overall installation designs are repeated, one after the other, on Army installations. See Section 3.1 for additional information and references regarding the history and property types for Inter-War Era and other historic Army housing.

2.2.4 Inventory of Inter-War Era Housing

The Army's current inventory of 3,235 Inter-War Era housing units indicates the following locations and number of housing units: Fort Benning, GA – 492 Inter-War Era housing units; US Army Garrison, HI – 386 units; Joint Base Lewis-McChord, WA – 330 units; Fort Sam Houston, TX – 296 units; Fort Sill, OK – 259 units; Fort Bragg, NC -230 units; US Army Military Academy at West Point, NY – 206 units; Fort Knox, KY – 202 units; Fort Belvoir, VA – 164 units; Fort Bliss, TX – 147 units; Fort Riley, KS -143 units; Fort Meade, MD – 112 units; Aberdeen Proving Ground, MD – 97 units; Carlisle Barracks, PA – 75 units; Hawthorne Army Depot, NV – 34 units; Fort Myer, VA – 26 units; Camp Parks, CA – 9 units; Picatinny Arsenal, NJ – 8 units; Rock Island Arsenal, IL – 7 units; McAlester Army Ammunition Plant, OK – 5 units; Presidio of Monterey, CA – 4 units; Fort Campbell, KY – 2 units; Arlington National Cemetery, VA – 1 unit. This inventory represents the best available Inter-War Era housing inventory information as of the date of this Program Comment.

2.2.5 Applicability and Exclusions

This Program Comment applies to all Army Inter-War Era housing, with the exception of Army Inter-War Era housing formally designated by the Department of the Interior, National Park Service (NPS) as an NHL or as a contributing property within an NHL District. Section 110(f) of the NHPA requires that Federal agencies exercise a higher standard of care when considering undertakings that may directly and adversely affect NHLs and, to the maximum extent possible, undertake such planning and actions as may be necessary to minimize harm to NHLs. To exercise a higher standard of care for these NHLs, all Army Inter-War Era housing formally designated as an NHL, or housing formally designated as a NHL contributing property within a designated NHL District are not covered by this Program Comment. Undertakings that

may affect designated NHL Inter-War Era housing will be addressed following the procedures in 36 CFR 800.3 - 800.7, and 36 CFR 800.10, and under the terms of applicable Section 106 Programmatic Agreements (PAs) or Memoranda of Agreement (MOAs).

The Army reviewed its NHL documentation to confirm that there are no Army Inter-War Era housing units that are designated by NPS as individual, stand-alone NHLs. All Inter-War Era housing units that are designated as NHLs are contributing properties to NHL Districts. A total of 213 Army Inter-War Era housing units are designated by the NPS as contributing properties in NHL Districts. Those NHL housing units are located at three installations: the US Army Military Academy at West Point, NY; Fort Myer, VA; and Fort Shafter, HI. The specific NHL housing units are: West Point NHL District, US Army Military Academy, West Point, NY, all 206 Inter-War Era housing units; Fort Myer NHL District, Fort Myer, VA, six Inter-War Era housing units identified as Quarters 17, 19, 20, 21, 22, and 28, located on Lee Ave; and Palm Circle NHL District, Fort Shafter, HI, one Inter-War Era housing unit identified as Quarters 18, the Hospital Commanding Officer's Quarters.

In addition to Army Inter-War Era housing already designated as NHL properties, any Army Inter-War Era housing that may be formally designated in the future by the NPS as an individual NHL or as a contributing property to a NHL District will not be covered by this Program Comment.

This Program Comment does not apply to effects on the following properties that are listed, or eligible for listing, on the National Register of Historic Places (NRHP): archeological sites; properties and landscapes of traditional religious and cultural importance to federally-recognized Indian tribes or Native Hawaiian Organizations; human remains, funerary objects,

sacred objects, objects of cultural patrimony to federally-recognized Indian tribes and Native Hawaiian Organizations, and Indian Sacred Sites.

Finally, this Program Comment does not apply to the 112 Inter-War Era housing units located at Fort Meade, MD. The Inter-War Era housing at Fort Meade is not a NHL. Rather, the Inter-War Era housing at Fort Meade is subject to a Deed of Easement dated 27 March 2003, between Mead Communities LLC (limited liability corporation) and the Maryland Historical Trust. Nothing in this Program Comment affects Deeds of Easement, which will continue to operate in accordance with applicable state and local laws. The Fort Meade, MD housing is the Army's only privatized historic housing subject to a Deed of Easement.

2.2.6 Methodology for determining appropriate use of historic, in-kind, or imitative substitute building materials

Management of this large inventory of historic housing requires the Army to balance historic preservation considerations with the quality of life, health, and safety concerns of military families. The high costs of historic building materials and in-kind building materials impact the Army's ability to fully implement improvements to housing for military families. To achieve this balance, the Army will use the full range of available building materials including historic building materials, in-kind building materials, and imitative substitute building materials in its management actions, and will follow preservation planning documents and criteria that are specifically tailored to Inter-War Era housing in determining which materials are used. The planning documents are the Design Guidelines and Building Materials Catalog described below and included herein as Appendices A and B. With proper planning and materials selection, as provided for under this Program Comment, the Army's management actions will maintain the

historic and architectural character of its Inter-War Era historic housing in balance with the quality of life, health, and safety concerns of military families who live in the housing.

Specified criteria are established in Section 3.2 for the selection of historic building materials, in-kind building materials, and imitative substitute building materials for use in Inter-War Era housing. The criteria for selection of a specific building material considers the need to maintain the historic and architectural character of the historic housing in balanced priority with the health, safety, and quality of life of the military families living in Inter-War Era housing.

The methodology for determining appropriate building materials in the context of Program Comment management actions is set forth in Section 3.2 and in the appended planning documents. Selection of appropriate building materials will follow the established criteria, and will be based on the unique circumstances of each housing unit. The focus of the criteria and planning documents is on preservation of the historic and architectural design characteristics of the housing, associated buildings and structures, and landscape features.

The Design Guidelines at Appendix A identify the character-defining features and design elements associated with the specific Inter-War Era architectural styles. Character-defining features include the overall housing style and design, decorative details, interior spaces and features, as well as associated buildings and structures, and landscape features. The Guidelines also provide the appropriate methods and approach for Inter-War Era housing management actions.

The Building Materials Catalog at Appendix B is used in concert with the Design Guidelines. The Building Materials Catalog provides additional specificity on building materials, their selection, and use. The Building Materials Catalog establishes the methodology for selecting specific building materials to include the evaluation process for determining the

appropriate material to select in any given rehabilitation or repair. The evaluation process factors in availability, initial cost, lifecycle costs, historic significance, quality of life, health, safety, and material living conditions in determining use of appropriate materials. Catalog entries are provided for major components of the house design. Design considerations for each catalog entry are derived from the design fundamentals of scale, mass, proportion, and materials, to develop guidance for materials and component design that factor location, type, size, finish and maintenance in their selection. Focus is on appropriate design, applicable materials, and performance characteristics. Emphasis is placed on retention of the design integrity of the housing, associated buildings and structures, and landscape features. The Design Guidelines and the Building Materials Catalog ensure that the Army's management actions will occur in a manner that maintains the historic and architectural character of Inter-War Era housing.

2.2.7 Implementation

The Army will implement this Program Comment in lieu of conducting individual case-by-case reviews under 36 CFR 800.3 - 800.7. This Program Comment supersedes and replaces the requirements in Army PAs and MOAs for Army Inter-War era housing, associated buildings and structures, and landscape features. The Army will implement this Program Comment in lieu of all PA or MOA requirements and procedures applicable to Army Inter-War Era housing. The Army will also implement the Program Comment in lieu of any procedures, development agreements, lease and conveyance documents, environmental management plans, guidelines, reporting requirements, Integrated Cultural Resources Management Plans, and any and all other installation documents, standards, procedures, or guidelines pertaining to the preservation and management of Inter-War Era housing, associated buildings and structures, and landscape features.

2.3 Definitions

The following definitions apply for the purposes of this Program Comment:

Abatement means actions to eliminate, lessen, reduce, or remove hazardous and toxic materials, and unsafe conditions.

Army Inter-War Era housing (and *Inter-War Era housing*) means all housing constructed during the period 1919-1940 that is located on an Army installation or operated and managed by the Army or an Army privatized housing partner on a joint base. For Hawaii, *Army Inter-War Era housing* includes housing constructed from 1919-1943, in order to include housing built from 1941-1943 that are of similar design, construction, and location as Inter-War Era housing in this Program Comment. The term *Inter-War Era housing* is used throughout this Program Comment to refer to Inter War Era housing, associated buildings and structures, landscape features.

Associated buildings and structures includes detached garages, carports, storage buildings, and other buildings, structures, and objects associated with Army Inter-War Era housing.

Associated ancillary purposes that support housing operations (reference *Lease and conveyance*) refers to the limited use of Inter-War era housing, buildings, and structures for purposes such as rental offices for privatized housing partners, community centers, and temporary public safety offices that service the housing areas.

Highly deteriorated means there are major structural and/or mechanical system failures and the resulting costs to rehabilitate or renovate Inter-War Era housing exceeds the combined costs of demolition and new or replacement construction, on a per square foot basis.

Historic building materials are building materials that are 50 years old and older.

Historic properties means buildings, sites, structures, objects, landscapes, and districts that are eligible for inclusion or that are included in the NRHP.

In-kind building materials are new building materials that are identical to historic building materials in all possible respects including their composition, design, color, texture, and other physical and visual properties.

Imitative substitute building materials (also *imitative materials*) are modern, industry standard, natural, composite, and synthetic building materials that simulate the appearance of and substitute for historic building materials.

Inter-War Era Neighborhood means a defined geographical area, district, or locality on an installation that is characterized by and comprised predominantly of Inter-War Era housing, associated buildings and structures, and landscape features.

Landscapes and Landscape features means the overall design and layout of the Inter-War Era housing communities including circulation systems and patterns, plantings and landscaping, open spaces, playgrounds, parking areas, signage, site furnishings, parade grounds, lighting, sidewalks, setbacks, other associated landscape features, and viewsheds into Inter-War Era historic properties and districts and out from Inter-War Era historic properties and districts into other historic properties and districts.

Lease and conveyance means the execution of lease and conveyance documents for the purposes of possession, management, and operation of Inter-War era housing solely for the purposes of and use as housing and for associated ancillary purposes that support housing operations.

Maintenance and repair means routine activities required to maintain buildings, building systems (such as heating and ventilation, plumbing, and electrical systems), building fixtures, and other building features or materials in an operational state, or to bring them back to operating condition by repair or replacement of broken, damaged, or deteriorated elements of building systems, fixtures, materials, and features.

Major Decision refers to the Army decision-making process regarding proposed demolition of Inter-War Era housing.

Major deficiency means that a required, numbered or lettered step in an identified procedure in this Program Comment has been entirely omitted, not reasonably addressed, or is substantially incomplete.

Management actions means maintenance, repair, rehabilitation, renovation, abatement, mothballing, demolition, replacement construction, new construction, lease and conveyance actions that may have an adverse effect on Army Inter-War Era housing, associated buildings and structures, and landscape features.

Mothballing means slowing and controlling long-term deterioration of housing while it is unoccupied, and protecting it from sudden loss.

National Historic Landmarks (NHL) are historic properties that have been formally designated as NHLs by the Secretary of the Interior. NHLs possess exceptional value as commemorating or illustrating the history of the United States (reference the Historic Sites Act of 1935).

New construction means construction of housing, associated buildings and structures, and landscape features within existing Inter-War Era housing neighborhoods

Public educational materials means new and existing Inter-War Era housing historic contexts, Design Guidelines, and other historical documentation containing plans and designs of Inter-War Era housing, neighborhoods, historic landscape plans, and the overall historical development of Army installation designs.

Privatized housing means military-owned housing that has been privatized under the Army's Residential Communities Initiative (RCI). The RCI operates on Army installations through the operation of legal partnerships between the Army and private sector developers. At each installation where RCI housing is located, the Army conveys ownership of existing housing and leases land to the RCI partnership. The RCI partnership then operates and manages the conveyed housing and leased lands for military housing purposes. Upon termination of the ground lease, ownership of all RCI partnership owned improvements (including all housing) that is located within the boundaries of the ground lease is automatically conveyed back to the Army.

Professional assistance means assistance from an individual who meets the Secretary of the Interior's Professional Qualification Standards in the appropriate field (e.g., architectural history, historic architecture, or archeology).

Quality of Life means the general wellbeing and material living conditions of individuals, families, and social groups such as military families living in historic housing.

Rehabilitation means repairs, additions, and other alterations and modifications to a building that preserve, to the greatest extent possible, historic building materials, historic building design, and other historic building features which convey its cultural, historical, and architectural values.

Renovation means improvements to housing including alterations; modifications; additions that increase the square footage; interior floor plan changes; large scale replacement of

out of date, damaged, deteriorated, or defective building systems and materials; and other alterations that modernize housing to improve the quality of life of residents.

Replacement construction means housing, associated buildings and structures, and landscape features constructed within existing Inter-War Era housing neighborhoods in the immediate area of demolished housing, associated buildings and structures, and landscape features.

Treatment measure or treatment means any existing, new, or updated materials or actions that serve to address, reduce, minimize, or otherwise mitigate adverse effects on historic properties, and may include research reports, historical documentation, recordation, and other materials and activities.

Viewshed means all of the area visible from a particular location, viewing point, or series of viewing points. Includes all surrounding points that are in the line of sight from a particular location, viewing point, or series of viewing points. Excludes all points and locations that are not visible and/or are obstructed by terrain, other natural features, man-made features, and points beyond the horizon.

3.0 Treatment Measures for Army Inter-War Era Historic Housing

The Army will implement treatment measures to address, reduce, minimize, or otherwise mitigate adverse effects on Army Inter-War Era historic housing resulting from its management actions. The treatment measures include: extensive existing documentation, research to further develop the Army Inter-War Era housing historic context, development and implementation of Design Guidelines, development and implementation of a Building Materials Catalog, an Army policy statement for Program Comment implementation, development of public information and

use of social media, lifecycle tracking of building materials data, preservation of the Army's most significant Inter-War Era housing, and monitoring and reporting of treatment measures.

3.1 Existing Documentation and Recordation Applicable as Treatment Measures

3.1.1 Army-wide Historic Context. Documentation, and Recordation of Inter-War Era Housing, Associated Buildings and Structures, Landscape Features

The Army has extensive existing documentation and recordation on the Army-wide history and historic context of the Inter-War Era housing, its exterior designs and architectural styles, interior designs and floorplans, factors influencing design variations, and its associated buildings and structures, and landscape features³. This existing set of Army-wide documentation serves as a Program Comment treatment measure because it provides comprehensive documentation and recordation of Inter-War Era housing, associated buildings and structures, and landscape features. This documentation has been consolidated in a single location and is available on the Army's Inter-War Era Housing Program Comment website located at:

<https://denix.osd.mil/army-pchh/home/>.

Army installations are part of the country's built environment. Similar to civilian towns and cities, Army installations are a record of their time and development history, and represent the planning and architectural concepts associated with the times in which they were established and modified. The Army's existing documentation represents an extensive inventory and

³ A. *National Historic Context for Department of Defense Installations, 1790-1940*, Volumes I-4. DoD Legacy Resource Management Program Project 92-0075 (1995).

B. *A Study of United States Army Family Housing Standardized Plans*, Volumes 1-5., Grashof, B. (1986).

C. *Context Study of the United States Quartermaster General Standardized Plans 1866-1942*. Army Corps of Engineers, Seattle District (1997).

D. *Historic Context Study of Historic Military Family Housing in Hawaii*. DoD Legacy Resource Management Program Project 115 (2003).

E. *Design Guidelines for Department of Defense Historic Buildings and Districts*. DoD Legacy Resource Management Program Project 07-382 (2008).

recording of the planning, architectural concepts, and development history associated with Inter-War Era housing, associated buildings and structures, and landscape features. The existing documentation provides a detailed account and historic context for Army Inter-War Era housing, it records its place in the history of Army housing evolution and development of Army Quartermaster Corps standardized planning; includes a comprehensive inventory of Quartermaster Corps Inter-War Era housing designs and interior floor-plans; provides detailed explanations of the Inter-War Era designs and their variations; provides descriptions of the various Inter-War Era housing forms, architectural styles, and their regional style variations; includes plans for their designed landscapes and neighborhoods; and provides overall historic context information regarding the historical development, designs, and plans of Army installations, landscapes, and neighborhoods over time.

3.1.2 Installation-Specific Historic Contexts and Documentation and Recordation of Inter-War Era Housing, Associated Buildings and Structures, and Landscape Features

Individual Army installations have also documented and recorded Inter-War Era housing in specific installation-level documents for NHPA compliance purposes. Installation-level documentation includes installation Cultural Resource Management Plans that contain relevant historic contexts, an inventory of historic properties on each installation, electronic recordation of the location of these housing areas and historic districts in installation Geographic Information Systems and often, detailed documentation prepared in the context of installation NHPA Section 106 compliance activities. Several examples of such detailed installation-level documentation of Inter-War Era housing are provided on the Army's Inter-War Era Housing Program Comment website. Examples of this documentation include detailed documentation and recordation of specific Inter-War Era housing to the standards of the Historic American Buildings Survey and

similar detailed documentation and recordation of specific Inter-War Era historic landscapes to the standards of the Historic American Landscapes Survey. Such installation-specific records are recognized as part of the overall set of Army historical information directly relevant to the recordation and documentation of Army Inter-War Era housing.

3.2 Additional Treatment Measures

The Army will carry out the following additional treatment measures for Inter-War Era Housing, associated buildings and structures, and landscape features.

3.2.1 Army Inter-War Era Housing Historic Context

The Army will conduct additional historic context research by the end of calendar year 2021, that will:

- a. Expand on existing Inter-War Era housing historic context information.
- b. Address the precedents on which Army Quartermaster Corps Inter-War Era house styles are based.
- c. Examine Army Inter-War Era housing design in the context of architectural design trends in the civilian sector.
- d. Further describe the architectural styles present in the Army's inventory of Inter-War Era housing.
- e. Examine Army Inter-War Era housing in the context of social and economic changes during the Inter-War Era.
- f. The Army will ensure the information is publicly available on the Army's Inter-War Era Housing Program Comment website.

3.2.2 Design Guidelines, Building Materials Catalog, and Building Materials Selection Criteria and Procedures for Army Inter-War Era Housing

The Army [or, where housing has been privatized, Army housing partners] will carry out management actions in accordance with the Design Guidelines, the Building Materials Catalog, and building materials selection criteria and procedures to ensure that the historic and architectural character of Inter-War Era housing is maintained.

3.2.2.1 Design Guidelines (see Appendix A)

The scope of the Design Guidelines includes all Army Inter-War Era housing and its associated buildings and structures, and landscape features subject to this Program Comment. The purpose of the Design Guidelines is to ensure the historic and architectural character-defining features of Inter-War Era housing and its, associated buildings and structures, and landscape features are maintained in the context of Army management actions affecting Inter-War Era housing. The Design Guidelines provide specific information regarding Inter-War Era housing architectural styles and historic districts containing Inter-War Era housing, and identify the overall character-defining features and design elements associated with the specific Inter-War Era architectural styles. Character-defining features of the housing include the overall shape, style and design of the building, decorative details, interior spaces and features, as well as its associated buildings and structures, and landscape features.

The Guidelines also provide methods and approach for Inter-War Era housing routine maintenance, emergency repairs and disasters, rehabilitation, renovation, new additions, new construction, replacement construction, and improvements to windows and doors, entrances, porches and details, roofs, foundations and walls, interiors, and interior structural systems. The Guidelines also address mothballing and layaway of housing and provide specific guidelines for

demolition. The Guidelines address historic designed landscapes and features, historic districts containing inter-war era housing, circulation systems and paving patterns, and associated buildings and structures. The Design Guidelines also address force protection requirements.

3.2.2.2 Building Materials Catalog (see Appendix B)

The Building Materials Catalog establishes a methodology for selecting specific building materials for use in rehabilitation or renovation of Inter War Era housing that will maintain the historic and architectural character of the housing. The Army will select materials specified in the Building Materials Catalog. Catalog entries are provided for major components of the house design. Design considerations for each entry are derived from the design fundamentals of scale, mass, proportion, and materials to develop guidance for materials and component design that factor location, type, size, finish and maintenance in their selection. Emphasis is placed on retention of the design integrity of the dwelling and other aspects of integrity. The Building Materials Catalog may be amended to include new building materials as they become available following the procedures in Section 8.

3.2.2.3 Building Materials Selection Criteria

The Army [or, where housing has been privatized, Army housing partners] will apply these overarching criteria for the selection of building materials. These criteria address the need to maintain the historic and architectural character of Inter-War Era housing in balanced priority with the health, safety, and quality of life considerations for military families living in this housing. The overarching criteria for building materials selection are: When health and safety of military families is of concern, or when the initial or on-going use of historic building materials and in-kind building materials impacts the Army's ability to fully implement quality of life improvements to housing for military families, imitative substitute building materials will be considered for use only in a manner that maintains the historic and

architectural character of the historic housing and when consistent with the results of the following building materials selection procedure.

3.2.2.4 Building Materials Selection Procedure

The Army [or, where housing has been privatized, Army housing partners] will implement the following step-by-step procedure for the selection of appropriate building materials for the rehabilitation or renovation of Inter-War Era housing. Where Inter-War Era housing has been privatized, Army housing partners will implement the procedure. The building materials selection procedure will also be applied to purchases of bulk or stock materials used in maintenance and repair actions. This will facilitate implementation of maintenance and repair actions and will appropriately standardize the materials used in this standardized design housing stock. The step-by-step procedure for selection of building materials is:

a. Characterize historic building materials currently present in terms of: design, material properties, condition, performance, safety, and presence of hazards such as lead-based paint, asbestos, and other hazardous materials.

b. Determine if the health and safety of housing occupants is a concern due to unsafe or hazardous historic building materials.

c. Determine if the costs associated with initial or continued use of historic building materials impacts the ability to fully implement quality of life improvements to the housing.

d. Determine if a historic building material must be replaced due to deterioration, health and safety considerations, or financial impacts to quality of life improvements. (If historic building material replacement is required due to the material's deterioration, determine the cause of the failure to ensure that the new replacement in-kind or imitative substitute material will not fail for the same reasons that caused the historic building material to fail).

e. If replacement of historic building materials is required, determine if there are material characteristics of the historic building materials that should be improved upon with use of in-kind building materials or imitative substitute building materials.

f. Evaluate replacement in-kind building materials and imitative substitute building materials (i.e., replacement building materials) with respect to design and material properties using the Design Guidelines and Building Materials Catalog. Evaluate the expected performance, costs, and short and long-term cost/benefit considerations of the replacement building materials. Determine if the costs associated with use of in-kind building materials impacts the ability to fully implement planned quality of life, health, and safety improvements to the housing.

g. Based on the analysis in f. above, compile a short list of replacement building materials from the Building Materials Catalog.

h. Determine and select the appropriate replacement building material from the short list of materials. When an in-kind building material is determined to be the appropriate replacement building material, the in-kind building material will be selected and used. Exterior vinyl siding will only be selected and used after other replacement building materials are evaluated and determined not to be the appropriate replacement building material in accordance with these procedures.

i. Document the evaluation and selection process.

j. Write specifications for design and installation, and oversee project planning and implementation.

Before removing interior walls that are original to the historic floorplan or that would result in a loss of original historic features such as mantels, staircases, and molding, the Army or

Army housing partner will first consider options to retain those original historic walls and features. If the Army or Army housing partner decides to proceed with the removal of such interior walls, they will consider retaining original historic features. If these features and materials will be retained, the selection of building materials for management actions subsequently affecting them will proceed in accordance with the process outlined above in this section. When such original historic features are not retained, the Army or Army housing partner will consider salvage of such historic features for possible reuse on other similar housing at that location.

3.2.2.5 Ensure management actions follow the Design Guidelines, Building Materials Catalog, Building Materials Selection Criteria, and Building Materials Selection Procedure

To implement this requirement, the Army will:

- a. Ensure installations and Army privatized housing partners with Inter-War Era housing have access to and implement the Design Guidelines (at Appendix A), Building Materials Catalog (at Appendix B), and the Building Materials Selection Criteria and Selection Procedure in this Program Comment for management actions affecting Army Inter-War Era housing.
- b. Ensure the availability of historic preservation professional assistance for Design Guidelines and Building Materials Catalog implementation.
- c. Monitor and report on the implementation of the Design Guidelines, and Building Materials Catalog, Building Materials Selection Criteria, and Building Materials Selection Procedure.
- d. Maintain oversight of Design Guideline and Building Materials Catalog implementation through the Army Federal Preservation Officer (FPO).

e. Make the Design Guidelines and Building Materials Catalog publicly available on the Army's Inter-War Era Housing Program Comment website.

f. Update the Building Materials Catalog as new, applicable building materials become available, or as needed based on building materials lifecycle tracking and analysis following the process for amendments in Section 8 (b).

3.2.3 Public Educational Materials and Social Media Distribution

All documentation prepared under this Program Comment regarding the history of Army Inter-War Era housing are considered public educational materials and the Army will consolidate and maintain it at a single publicly accessible website located at <https://denix.osd.mil/army-pchh/home>, ongoing from the date of issuance of the Program Comment through 2055. Public educational materials include new and existing Inter-War Era housing historic contexts, Design Guidelines, Building Materials Catalog, and other historical documentation containing plans and designs of Inter-War Era housing, neighborhoods, historic landscape plans, the overall historical development of Army installation designs, lifecycle building materials information, and other Program Comment reports.

The Army will use social media hosted by the Defense Environmental Information Exchange platform at <https://twitter.com/DENIXnews>, to provide historic preservation information to the public. Specifically, the Army will develop and distribute monthly social media content using the information developed for the Program Comment for Inter-War Era housing and general information pertaining to Army historic preservation activities and other Army historic property types through 2025.

3.2.4 Lifecycle Data Tracking for In-Kind Building Materials and Imitative Substitute Building Materials Used in Army Inter-War Era Housing

The Army conducted a lifecycle cost/benefit analysis focused on three different types of building materials that have been used on Army Inter-War Era housing: 1) historic building materials that were rehabilitated and reused, 2) in-kind building materials, and 3) imitative substitute building materials. The analysis compared lifecycle quantitative and qualitative factors associated with rehabilitated historic windows on 43 Inter-War Era housing units, in-kind wood windows on 127 Inter-War Era housing units, and vinyl windows used on 202 Inter-War Era housing units. The analysis also compared the lifecycle factors for in-kind natural stone slate roofing with synthetic slate roofing used on 76 Inter-War Era housing units. The costs used in the analysis were the actual cost estimates and expenditures on Army Inter-War Era housing from two installations in the eastern United States, incurred within the last 5 years for all analyzed categories of windows and roofing.

The results of the lifecycle analysis of both windows and roofing indicated that, for one-half the cost of either the rehabilitated historic building materials or the in-kind building materials, the imitative substitute materials would deliver the same 100 year to 125 year service-life expected from the historic building materials. The results of this cost/benefit analysis indicate that, in consideration of lifecycle, quantitative, and qualitative factors, the imitative substitute building materials analyzed would deliver a better lifecycle cost/benefit solution than rehabilitate historic building materials or in-kind building materials. The results of this analysis suggest that the expanded use of imitative substitute building materials for Army Inter-War Era housing may achieve a significant lifecycle cost/benefit.

An estimate of the years of service for in-kind building materials and imitative substitute materials was required for the cost/benefit analysis due to the lack of systematically collected, quantifiable, lifecycle data regarding the longevity of these materials. Estimated years of service used in the cost/benefit analysis for in-kind building materials and imitative substitute building materials were based on the manufacturer's material replacement warranty period.

In recognition that the historic preservation knowledge base regarding long-term performance for in-kind building materials and imitative substitute building materials is underdeveloped, the Army will conduct lifecycle tracking of in-kind building materials and imitative substitute materials in Inter-War Era housing as follows:

- a. The Army will track data on in-kind and imitative substitute building material types (identified in the Building Materials Catalog) on approximately 300 Inter-War Era housing units.
- b. All data will be from materials used in Army Inter-War Era housing units.
- c. Data will be collected at the individual housing unit level.
- d. The following in-kind and imitative substitute building material types will be tracked:
 - i. Vinyl replacement windows
 - ii. In-kind wood replacement windows
 - iii. PVC window trim
 - iv. Synthetic slate roofing
 - v. Fiber cement siding
- e. The following data points will be collected on each in-kind and imitative substitute building material type:
 - i. Year Building Material Installed

ii. Year Building Material Replaced

iii. Lifespan (number of years from year installed to year replaced)

v. Materials warranty period

f. Data will be collected and reported annually from 2020 to 2025, and will then be collected and reported at five-year intervals, in 2030, 2035, 2040, 2045, 2050, and 2055, as specified in Section 5, and be made available to the public through the Army's Program Comment website.

g. The Army will assess the lifecycle data at five year intervals to identify significant new information pertaining to the lifecycle of in-kind building materials and imitative building materials used on Inter-War Era housing.

h. The Army will ensure distribution of significant new information pertaining to the lifecycle of in-kind building materials and imitative building materials used on Inter-War Era housing to installation housing managers and housing privatization partners responsible for the selection of appropriate building materials.

i. The Army will use significant new information to update the Building Materials Catalog and the Inter-War Era housing lifecycle cost/ benefit analysis, as needed.

3.2.5 Demolition Proposals, Criteria, Procedures, and Decision-making

Section 3.2.5, and its subsections, pertaining to demolition proposals, criteria, procedures, and decision-making may be removed or amended at any time, at the ACHP's discretion, following the procedures in Section 8. Upon removal, the Army will no longer conduct demolition of Inter-War Era housing under this Program Comment. Upon amendment, the Army will conduct demolition of Inter-War Era housing under the Program Comment amended procedures.

The Army will apply specific overarching criteria when considering Inter War Era housing for demolition. These criteria address health, safety, and quality of life considerations for military families living in this housing. The overarching criteria are: Inter War Era housing will be considered for demolition when it is highly deteriorated, and/or vacant for 12 months or longer due to underutilization, and/or if potentially hazardous materials or unsafe conditions are present.

3.2.5.1 Demolition Procedure

A specific decision-making procedure will be followed to address demolition proposals for Inter-War Era housing. The Army or, where Inter-War Era housing has been privatized, Army housing partners, will implement the following step-by-step procedure when proposing the demolition of Inter-War Era housing:

a. Determine and characterize the housing unit's current condition and use, including if it is in a highly deteriorated condition, and/or vacant for 12 months or longer due to underutilization, and/or if potentially hazardous materials or unsafe conditions are present.

b. Evaluate prudent and feasible alternatives to demolition including: rehabilitation, renovation, reuse, layaway and mothballing, or return of privatized housing to Army ownership. Develop a cost estimate associated with each evaluated alternative. Cost estimates will include the costs of abatement of potentially hazardous materials and unsafe conditions, costs to layaway and mothball the housing, per square foot costs to rehabilitate or renovate the housing, per square foot costs to demolish the housing and to construct new or replacement housing. Determine if the costs to rehabilitate or renovate the Inter-War Era housing that is highly deteriorated exceeds the combined costs of demolition and new or replacement construction, on a per square foot basis.

c. Determine if there are, or are not, any prudent and feasible alternatives to demolition based on the evaluation of alternatives.

d. Prepare a Building Disposition Report (Report) if it is determined that there are no prudent and feasible alternatives to demolition. The Report will evaluate each prudent and feasible alternative to demolition and will include: the housing unit's current condition including if it is in a highly deteriorated condition; determination if it has been vacant due to underutilization for 12 months or longer, the likelihood for re-utilization as housing in the next five years, and the feasibility and costs of long-term layaway and mothballing; the presence of potentially hazardous materials or unsafe conditions and cost estimates for remediation; estimates of the costs to rehabilitate or renovate housing that is highly deteriorated and estimates of the costs for demolition and new or replacement construction of such housing on a per square foot basis; a determination if the costs to rehabilitate or renovate housing that is highly deteriorated exceeds the combined costs of demolition and new or replacement construction on a per square foot basis; preparation of appropriate state/SHPO-specific historic property inventory form; interior and exterior photographic documentation of the housing by means of digital photography meeting the standards in 3.2.5.3; plans for salvage, inventory, and storage (in a manner that prevents deterioration) of any significant architectural elements for reuse elsewhere on similar housing units; measures for protection of adjacent historic buildings, sites, landscape features, and archeological resources from damage during demolition activities; the procedures defined in Section 4.2 to address the discovery of archeological resources or human remains during ground disturbing activities (discovery procedures in Section 4.2 may be cited and incorporated by reference for this purpose); and basic design concept for any new construction or

replacement construction to ensure that it will be in accordance with Design Guidelines for new and replacement construction.

e. Publish a public notice of availability for the Report in appropriate local media. The public notice will also elicit public comments regarding the action. The public notice will specify a 30-day comment period and a deadline date for receipt of any comments. The public notice must describe any steps required to obtain the Report; this can include a reference to a website location, a POC and mailing address, an email, phone number, or other equivalent mechanism for Report distribution.

f. Provide the Report to the responsible SHPO, ACHP, and appropriate Indian tribes or NHOs for a 30 day comment period. The 30-day SHPO, Indian tribe and NHO comment period should coincide with the public comment period. The Report and request to the SHPO, Indian tribes and NHOs for their comments will be provided by the installation where the housing has not been privatized, or by the privatized housing partner holding title to the housing where the housing has been privatized.

g. SHPO, ACHP, Indian tribe, NHO, and interested public party comments should identify if they believe there is a major deficiency in following the Program Comment Demolition Procedure specified in Section 3.2.5.1 a-f.

h. Where a SHPO, ACHP, Indian tribe, NHO, or interested party comment indicates that there may be a major deficiency in following the Demolition Procedure specified in Section 3.2.5.1a-f, the installation or privatized housing partner (as applicable) will coordinate with the commenting party and take appropriate action, as necessary, to resolve the deficiency. The installation, or privatized housing partner where housing has been privatized, will notify the commenting party in writing regarding how the major deficiency has been or will be addressed.

i. ACHP review. If any interested public party or relevant SHPO, Indian tribe, or NHO believes that a major deficiency has not been addressed in accordance with Section 3.2.5.h, they may request ACHP review and comment regarding the major deficiency. The ACHP will notify the Army FPO when it has received a request for ACHP review under this Section within 3 days of its receipt of the request. The Army FPO will consult with the ACHP regarding the major deficiency and will provide any additional documentation requested by the ACHP. Within 30 days after receipt of a request for ACHP review under this Section, the ACHP will either provide the Army FPO with recommendations which the Army will take into account in reaching a decision on the proposed demolition, or will notify the Army FPO that it will not comment pursuant to the Program Comment. The Army FPO will respond, as appropriate to any ACHP comments and indicate how the Army has or will take ACHP recommendations into account in reaching its final decision. The ACHP will notify the interested public party or relevant SHPO, Indian tribe, or NHO regarding the results of the ACHP review.

3.2.5.2 Decision-making for Proposed Demolition of Inter War Era Housing

a. Demolition proposals for Inter-War Era housing require preparation of a Major Decision (MD) package and its submission to Headquarters, Department of the Army for final decision. The MD package will include: an executive overview; scope of the demolition action with cost and justification / rationale for demolition; financial assessment of the impacts on development costs for the overall housing project; a schedule; the Building Disposition Report; all public, SHPO, Indian tribe or NHO comments and how each comment was been addressed or adjudicated; a summary of any major deficiency in following Demolition Procedure Section 3.2.5.1a-f identified in the public and SHPO, Indian tribe or NHO review and actions taken to resolve the deficiency.

b. Army FPO Review. The MD package shall include the Army FPO's concurrence that the Program Comment Demolition Procedure Section 3.2.5.1 has been followed. If the FPO determines that a major deficiency in following Demolition Procedure Section 3.2.5.1 identified by a SHPO, Indian tribe, NHO, or interested party has not been adequately resolved, the MD package will be returned for further resolution of the deficiency and re-submission.

c. Army Decision. MD packages with Army FPO concurrence will be provided to the Deputy Assistant Secretary of the Army for Installations, Housing and Partnerships, or an equivalent or higher Army authority, for the final decision to approve or disapprove the proposed demolition (demolition decision). The Army will provide a summary of each demolition decision to the ACHP within 30 days of such a decision, and will include a summary of all demolition decisions in the relevant Annual Report (see Section 5). The summaries will include the location of the housing proposed for demolition, reason for proposing demolition, alternatives considered, summary of comments by SHPO and other interested parties, and how such comments were addressed.

3.2.5.3 Digital Photographic Standards.

The Army will implement the following National Park Service standards for digital photography:

a. Digital photographic documentation of housing proposed for demolition will use Tag Image File format (TIFF), RAW format images, or JPEGs converted to TIFFs for the best image resolution. RGB color digital TIFFs are preferred.

b. Digital camera resolution will be set to the maximum or largest pixel dimension the camera allows, two megapixels (1200 x 1600 pixel image) to six megapixels or greater (2000 x 3000 pixel image) is recommended.

c. Photographs will be clear, well-lit, well-composed, include each façade, and provide an accurate visual representation of the housing and its significant features.

d. The number of photographs depends on the size and complexity of the housing, but will include as many as needed to depict the current condition and significant features of the property. A few photographs may be sufficient to document a single house; larger or multi-unit housing may require a number of photos.

e. Photographs will show the principal facades and the setting in which the property is located. Additions, alterations, and associated structures will appear in the photographs. The photographs will include views of interiors, outbuildings, landscaping, or unusual features of the property.

f. All digital photographs will be archived on site with either the installation or housing partner (as appropriate), as part of the administrative record for the project.

3.2.6 Lease and Conveyance of Inter-War Era Housing for Use as Housing

This provision applies to ground lease and conveyance of Inter-War Era housing associated with the Army's privatized housing program, currently referred to as the Residential Communities Initiative. The applicability of this provision is limited solely to leasing or otherwise conveying Inter-War Era housing for the purposes of possession, management, and operation as housing and associated ancillary purposes that support housing operations. The Army will ensure that entities to which it leases or otherwise conveys Inter-War Era housing for the purposes of possession, management, and operation as housing and associated ancillary purposes follow this Program Comment for all management actions associated with these properties. This provision also applies to the reversion of leased or otherwise conveyed Inter-

War Era housing from a management entity back to the Army, whereby the Army will follow this Program Comment for all management actions associated with these properties.

3.3 New Construction and Replacement Construction Procedures

New construction and replacement construction activities under this Program Comment are limited to existing Inter-War Era neighborhoods. The Design Guidelines include guidelines for new construction and replacement construction of housing, associated buildings and structures, and landscape features within Inter-War Era neighborhoods. The Army will, in accordance with the Design Guidelines:

a. Ensure new and replacement construction is compatible with the mass, form, character-defining features, and architectural style of the existing housing, associated buildings and structures, and landscape features.

b. Ensure new and replacement construction does not completely obstruct views out from or into a historic district.

c. Maintain compatibility of the front elevation of housing with the scale, setback, and spacing of the surrounding historic housing.

d. Ensure that any new and replacement construction associated with or affecting historic circulation patterns occurs in accordance with Design Guideline, Guidelines for Circulation Systems and Paving Patterns.

3.4 Preservation of the Army's Most Significant Inter-War Era Housing

The Army will set aside and give special consideration to protecting and preserving its most significant Inter-War Era housing. The Army's full set of 213 Inter-War housing units designated as NHLs (as identified in Section 2.2.5), are set aside from this Program Comment for a higher standard of care and preservation by the Army. This Program Comment does not apply

to and excludes the 213 Army Inter-War Era housing units formally designated as a NHL or as a contributing property within a NHL District, or to Inter-War Era housing that may be designated as a NHL in the future. To implement a higher standard of care and preservation the Inter-War Era NHL housing, the Army will:

a. To the maximum extent possible, undertake planning and actions in a manner to minimize harm to Inter-War Era NHL properties.

b. Address the effects of its undertakings on Army Inter-War Era NHL housing by following Section 110(f) of the NHPA, and the procedures in 36 CFR 800.3 - 800.7 and 36 CFR 800.10, or under the terms of applicable Section 106 agreements.

c. Implement the special requirements for protecting NHLs at 36 CFR 800.10.

d. Ensure the ACHP participates in any consultation to resolve adverse effects to Inter-War Era NHL housing.

e. Notify the Secretary of the Interior of any consultation involving Inter-War Era NHL housing and invite the Secretary of the Interior to participate in consultation where there may be an adverse effect.

f. The Army FPO will issue an Army-wide NHPA policy memorandum within 45 days from the date of issuance of this Program Comment indicating that the Army's formally designated Inter-War Era NHL Housing requires special consideration and a higher standard of care and preservation by the Army. The memorandum will state: all 213 Army Inter-War Era NHL Housing units are excluded from this Program Comment; undertakings that may affect formally designated Inter-War Era NHL housing units will be managed following the procedures in 36 CFR 800.3 - 800.7, and 36 CFR 800.10, and under the terms of existing Section 106 MOAs

or PAs, as appropriate; and Army Inter-War Era housing that may be formally designated in the future by the NPS as a NHL will not be covered by this Program Comment.

4.0 No Further Historic Property Identification and Evaluation Efforts Required, and Historic Property Discovery Procedures

4.1 No Further Historic Property Identification and Evaluation Efforts Required

The Army's Inter-War Era housing has been extensively identified, assessed, documented, and recorded on a nation-wide and local basis (see Section 3.1). The Army will not conduct any further historic property identification and evaluation efforts in connection with the management actions covered by this Program Comment. This is based on the: acknowledgement that its inventory of Inter-War Era housing are historic properties; extensive existing information pertaining to the identification, assessment, documentation, and recordation of Inter-War Era housing on a nation-wide and local basis; extensive prior ground disturbance associated with Inter-War Era housing tract development and the resulting low probability for the presence of National Register of Historic Places eligible archeological properties; and no indication from Federally-recognized Indian Tribes or Native Hawaiian Organizations of concern for known archeological properties or properties of religious or cultural significance in Army Inter-War Era housing areas.

The Army's Inter-War Era housing areas are the equivalent of urban/suburban housing development tracts in the civilian sector. As such, there is significant prior ground disturbance in Army Inter-War Era housing areas resulting from the construction of the housing tracts including overall grading of the entire development sites, housing construction, construction of associated buildings and structures, road and sidewalk construction, installation of above and below ground utilities, landscaping, construction of

recreational structures, and subsequent ground disturbing actions that have occurred after the original construction. Such areas of extensive ground disturbance associated with housing tract development are generally considered to have a low probability for the presence of National Register of Historic Places eligible archeological properties.

4.2 Discovery Procedures for Historic Properties and Native American and Native Hawaiian Human Remains and Funerary Objects

The Army will provide sufficient information to contractors and staff involved in implementing management actions on Inter-War Era housing regarding these procedures for discovery of historic properties, and Native American or Native Hawaiian human remains and funerary objects. If there is a discovery of or unanticipated effects to historic properties during the conduct of management actions for Inter-War era housing, a report of findings describing the events leading to and immediately following the reporting of the inadvertent discovery will be prepared within thirty (30) calendar days of each inadvertent discovery. This report shall be provided to the SHPO and, as appropriate, Indian tribes and NHOs.

Procedures for discovery are also incorporated in the Design Guidelines (Appendix A) for Inter-War Era housing management actions involving ground disturbing activities. Ground disturbing activities may include but are not limited to housing additions, new construction, replacement construction, demolition, large-scale landscaping activities, and water and sewer line maintenance.

4.2.1 Discoveries of and Unanticipated Effects to Historic Properties

The following procedures will be followed during the implementation of a management action under this Program Comment where there is a discovery of or unanticipated effects to historic properties.

a. Should the Army or, where Inter-War Era housing has been privatized, Army housing partners, find that a management action is having an adverse effect that was not anticipated, make a discovery of archeological artifacts, archeological features or other archaeological materials, human remains, or other previously unknown properties that, in the opinion of the Army agency official (Army installation commander, garrison commander, or their official designee), may be a historic property, the agency official will ensure: all work activity is immediately stopped within a 75 foot radius buffer zone around the discovered property; the discovered property is protected from looting and vandalism; and the relevant SHPO, Indian tribes or NHOs are notified of the discovery within twenty four (24) hours. All management actions may continue outside the 75 foot buffer zone.

b. If human remains and/or funerary objects that may be Native American or Native Hawaiian in origin are discovered, Section 4.2.2 will be followed. If discovered human remains are historic but are not of Native American or Native Hawaiian origin, and are not part of a crime scene, the Army agency official, in consultation with the SHPO, will have an archaeologist assess the area where the remains were found to determine the nature and extent of the remains, determine if a cemetery is present, and will evaluate the feasibility of preserving remains in place or whether they will be exhumed and re-located. The Army acknowledges that the respectful treatment of all human remains is a paramount concern and that an appropriate treatment is to protect and preserve human remains in situ, if possible.

c. The Army agency official has five working days following notification of the discovery to consult with the SHPO and, as applicable, Indian tribes or NHOs to determine if the discovered property is a historic property eligible for listing in the National Register of

Historic Places (NRHP). The Army may also assume the newly discovered property to be eligible for the NRHP for the purposes of Section 106 pursuant to 36 CFR 800.13(c).

d. If the Army agency official determines, in coordination with the SHPO and, as applicable, Indian tribes or NHOs that the discovered property is not a historic property eligible for listing in the NRHP, all management actions and construction activities may immediately resume within the area of the discovery and the buffer zone upon such determination.

e. If the Army agency official determines that the discovery is a historic property, the Army will consult with the SHPO and (as appropriate) Indian tribes or NHOs regarding appropriate treatment measures to avoid, minimize, or mitigate adverse effects that may occur once the management actions are resumed. The SHPO, and Indian Tribes or NHOs will have five working days to review and comment on the proposed treatment measures. The Army agency official shall take all comments received into account in finalizing and implementing the treatment plan. Treatment measures may include, but are not limited to archaeological evaluation of the site, exploration of potential alternatives to avoid the site; and preparation and implementation of a limited data recovery plan to retrieve important information from the site.

4.2.2 Discovery of Native American and Native Hawaiian Human Remains and Funerary Objects

The Army acknowledges that the respectful treatment of Native American and Native Hawaiian human remains and funerary objects is a paramount concern and that an appropriate treatment is to protect and preserve Native American or Native Hawaiian human remains and funerary objects in situ, if possible.

If human remains and/or funerary objects that may be Native American or Native Hawaiian in origin are discovered during the conduct of management actions under this Program Comment, the Army agency official will immediately apply the provisions of the Native American Graves Protection and Repatriation Act (NAGPRA), implement NAGPRA compliance procedures, and will notify the relevant SHPO, Indian tribe(s) or NHO(s), and the Army FPO of the discovery within 24 hours.

5.0 Annual Reporting and Annual Meeting

The Army will monitor and report on its implementation of the treatment measures for the Program Comment for Army Inter-War Era Housing.

5.1 Annual Report

On or before January 31st of each year from 2021 to 2025, the Army will provide an Annual Report to the ACHP and, at least two weeks prior to an Annual Meeting, post the Report on its Inter-War Era Housing Program Comment website. The Annual Report will provide the status of the following treatment measures:

- a. Inter-War Era Historic Context.
- b. Design Guidelines and Building Materials Catalog.
- c. Design Guidelines Professional Assistance and Monitoring Activities.
- d. Army FPO NHPA Policy Memorandum.
- e. Army's Inter-War Era Housing Program Comment Website Activities.
- f. Public Educational / Social Media Activities.
- g. Imitative Substitute Building Materials Lifecycle Data reporting special provisions:
 - i. Imitative Substitute Building Materials Lifecycle data will be reported annually from 2021 to and including 2025.

ii. Following 2025, the lifecycle data will be reported at five-year intervals, in 2030, 2035, 2040, 2045, 2050, and 2055, for a total of 35 years.

iii. The necessity for continuation of lifecycle data collection and reporting will be re-evaluated by the Army in consultation with the ACHP at each five-year reporting interval from 2030-2055 (see Section 6).

h. Following 2025, the summary of each demolition decision, and any known future demolition proposals, will be reported to the ACHP at five-year intervals, in 2030, 2035, 2040, 2045, 2050, and 2055, for a total of 35 years. The necessity for continuation of demolition reporting will be re-evaluated by the Army in consultation with the ACHP at each five-year reporting interval from 2030-2055

The Army's Annual Report will also include a summary review of decisions made for housing demolition; any known future demolition proposals; significant issues or misunderstandings that may have arisen in the course of applying the Program Comment, how those were addressed, and how they may be avoided in the future; and an assessment of the overall effectiveness of the Program Comment in meeting its intent and purpose.

5.2 Annual Meeting

The Army will conduct an Annual Meeting with the ACHP and invite participation from the National Trust for Historic Preservation, National Conference of State Historic Preservation Officers, and the National Association of Tribal Historic Preservation Officers. The Army and the ACHP may also invite other parties to the Annual Meeting, as each deems appropriate. The purpose of the Annual Meeting is to review and discuss the status of the Army's implementation of the Program Comment treatment measures, the Army's assessment of the effectiveness of the Program Comment in meeting its stated intent, and how it has addressed issues or

misunderstandings that may have arisen in the course of implementing the Program Comment. The Army intends to conduct the annual meeting in February of each year from 2021 to and including 2025.

The Army will post its Annual Report on the Army's Inter-War Era Housing Program Comment website at least two weeks prior to each Annual Meeting and will notify the ACHP and any ACHP identified participants. The Army will specifically include discussion pertaining to Design Guideline and Building Materials Catalog implementation, Major Decisions regarding demolition, any anticipated future demolitions, and imitative substitute building materials lifecycle data tracking. The Annual Meeting will also include discussion of any significant issues or misunderstandings that have arisen in the course of applying the Program Comment and how those problems were addressed and may be avoided in the future. The Annual Meeting will also provide an opportunity for attendees to provide their views assessing the overall effectiveness of the Program Comment in meeting its intent and purpose. The Army will document the occurrence of the meeting and participants, discussion topics agenda, and will document its response to recommendations by the ACHP as an outcome of the Annual Meeting. Annual Meetings may take place in-person, by phone, by videoconferencing, or any combination of such methods.

6.0 Schedule for Treatment Measures

The Army may immediately carry out all management actions in accordance with this Program Comment, and prior to the completion of the treatment measures specified in Sections 3.2.1, 3.2.3, and 3.2.4. The Army will stop carrying out management actions under this Program Comment when any of the schedules provided below (a. through g.) are not met and will not resume until such treatment measure is finished, unless the schedule has been adjusted in

accordance with Section 8. The schedule for the Army's submission of materials associated with treatment measures to the ACHP is as follows:

a. Army FPO NHPA Policy Memorandum – within 45 days from the date of issuance of the Program Comment.

b. Design Guidelines and Building Materials Catalog for Army Inter-War Era Historic Housing – complete on date of issuance of the Program Comment.

c. Design Guidelines Professional Assistance and Monitoring Activities – ongoing from the date of issuance of the Program Comment through 2025, and reported in each Annual Report.

d. Inter-War Era Housing Historic Context Report – end of calendar year 2021.

e. Army's Inter-War Era Housing Program Comment website activities - ongoing from the date of issuance of the Program Comment through 2025, and reported in each Annual Report.

f. Public Educational / Social Media activities – website active from the date of issuance of the Program Comment through 2055, and reported in each Annual Report. The Army will develop and distribute monthly social media content using the information developed for the Program Comment for Inter-War Era housing and general information pertaining to Army historic preservation activities and other Army historic property types through 2025.

g. Imitative Substitute Building Materials Lifecycle Data Collection and Reporting - in each Annual Report from 2021 – 2025. These data will then be independently reported to the ACHP at five-year intervals from 2030 – 2055. Imitative substitute building materials lifecycle data collection and reporting is contingent on the duration of the Program Comment, and is subject to re-evaluated by the Army in consultation with the ACHP at each five-year reporting interval from 2030-2055. If the ACHP and the Army determine after 2030 that further reporting

is not necessary, the requirement for such data collection and reporting will be waived in writing by the Chairman of the ACHP in accordance with Section 8.

7.0 Effect and Duration of the Program Comment

By adhering to the terms of this Program Comment, the Army meets its responsibilities for compliance with Section 106 of the NHPA for management actions associated with Inter-War Era housing, associated buildings and structures, and landscape features. The Program Comment will remain in effect for 35 years from the date of issuance unless, prior to that time, the Army determines that such comments are no longer needed and notifies the ACHP in writing, or the ACHP withdraws the Program Comment in accordance with 36 CFR 800.14(e)(6). Following such withdrawal, the Army will be required to comply with Section 106 through the process in 36 CFR 800.3 - 800.7, or an applicable program alternative under 36 CFR 800.14, for each individual undertaking formerly covered by this Program Comment. During the first six months of the 34th year after issuance of this Program Comment, the Army and the ACHP will meet to determine whether to consider an extension to its term.

8.0 Program Comment Amendment and Technical Adjustment

The ACHP membership may formally amend this Program Comment after consulting with the Army, and other parties as it deems appropriate. However:

a. The Chairman of the ACHP, after notice to the rest of the ACHP membership and the Army, may amend this Program Comment to extend its duration, and may waive further building materials lifecycle data collection and reporting requirements.

b. The Executive Director of the ACHP, after notice to the ACHP membership and the Army may amend this Program Comment to: add or remove materials from the Building Materials Catalog (after consulting with subject matter experts and ACHP members as the

Executive Director deems appropriate); adjust due dates associated with annual reporting in Section 5, adjust due dates for treatment measures in Section 6; and to correct typographical errors.

The ACHP will notify the Army in writing regarding all amendments per 8.0.b., within 30 days of their issuance. The ACHP will publish notice in the Federal Register regarding all other amendments within 30 days after their issuance.

9.0 Appendices

Appendix A Design Guidelines for Army Inter-War Era Historic Housing

Appendix B Building Materials Catalog for Army Inter-War Era Historic Housing

Authority: 36 CFR 800.14(e)

Aimee K. Jorjani, Chairman, ACHP