Architectural Survey: Conelly Duplex Units, Hawthorne Army Depot

Hawthorne, Mineral County, Nevada

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I. Executive Summary

The Hawthorne Army Depot (HWAD), formerly the Hawthorne Naval Ammunition Depot (NAD), is proposing to demolish twenty-five (25) duplex buildings and associated infrastructure known as the Conelly Housing Complex. The buildings and infrastructure are located at HWAD, in Mineral County, Nevada. The demolition of the Conelly Duplex Units and associated infrastructure is being administered through the Department of Defense's Facility Reduction Program (FRP). The project involves both federal land and funding and thus is required to comply with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended. This compliance includes the identification of resources eligible for, or already listed in, the National Register of Historic Places (NRHP).

This architectural survey of the Conelly Housing Complex has been prepared according to standards established by the National Park Service to evaluate the Conelly Duplex Units for their NRHP eligibility. The buildings, constructed in 1969, have not been previously evaluated for the NRHP or for their potential to contribute to the proposed Hawthorne NAD National Register Historic District.[1] A draft evaluation for the proposed Hawthorne NAD Historic District was prepared in 1984, when the Conelly Duplex Units were only 15 years old; consequently, the duplexes were not addressed at that time because they were not yet deemed of significant age to warrant historical consideration.

As a result of this architectural survey, the Conelly Housing Complex is recommended as a contributing element to the proposed Hawthorne NAD National Register Historic District, as documented in the 1989 draft National Register of Historic Places Nomination prepared by Ana Koval of Rainshadow Associates. The Conelly Duplex Units are contributors under Criterion A, for their association with the development of stateside military housing in support of the Vietnam Conflict. The Duplexes were designed by the U.S. Navy Bureau of Yards & Docks and built in 1969 specifically to house an influx of Naval military personnel required to work on a new bomb line for the Vietnam Conflict effort (*Mineral County Independent* 11/15/1967:1). None of the duplexes are individually eligible for the NRHP. The Conelly Housing Complex is not eligible as a historic district that is separate from the proposed Hawthorne NAD National Register Historic District as their importance lies in bracketing the full spectrum of late twentieth century military encounters felt at HWAD.

Demolition of the Conelly Housing Complex meets the criteria of an adverse effect as defined by 36 CFR 800.5(i) "Physical destruction of or damage to all or part of the property." In consultation with the State Historic Preservation Office (SHPO), the following recommendations were developed:

- watering and maintaining some of the mature and healthy trees;
- finding and assembling historic photographs of the duplexes;
- conducting oral history interviews with former residents of the Conelly Duplex Units and/or HWAD personnel who are familiar with the duplexes;

[1] The proposed boundaries of the NAD Historic District are "approximately the current legal boundaries of the Ammunition Plant. The current legal boundaries are smaller than the historical boundaries, but encompass all of the historic resources of the Depot and sufficient open space to include the water system and convey the district's historical setting" (Koval 1989). This includes approximately 148,517 acres. The Conelly Housing Complex is within the boundaries of the proposed NAD Historic District.

- preparing a public education component, such as a display exhibit, booklet, web page, or other medium to make the photographs and information gathered from the oral history interviews available to the public;
- recordation of the 25 Conelly Duplex Unit buildings on Architectural Resource Assessment (ARA) forms; and
- recordation of the extant historic landscape features and recommendations for the treatment of the historic landscape.

II. Project Description

The HWAD is proposing to demolish twenty-five (25) duplex buildings and related infrastructure located at the Depot. The one-story, Contemporary-style duplex units were built in 1969 and are commonly referred to as the "Conelly Duplex Units." The related infrastructure includes asphalt roads, concrete driveways, carports, small storage unit buildings, streetlights, and modern bus stops. The associated landscaping has been neglected since the units were vacated. The lawns and flowerbeds have died but many of the mature cottonwood trees, pine trees, and juniper bushes survive. The scope of the project includes ending the landscape maintenance.

The demolition of the Conelly Duplex Units and associated infrastructure is needed to relieve the United States Army of property that is excess to the needs and requirements of HWAD. According to a letter from Lt. Craig M. Short of HWAD, addressed to Mara Jones of the SHPO:

> "The Conelly Duplex Units have no foreseeable future and the U.S. Army requires the buildings and infrastructure to be demolished in accordance with applicable federal, state and local regulations. The 25 duplex units were all vacated and closed on December 31, 2013. With occupancy rates at approximately less than 20%, collected rent does not meet the maintenance and utilities costs to maintain and/or provide upgrades to the units to a standard required by Army Regulation (AR) 420-1. These buildings have been on the Government records for proper disposal for several years and [their disposal] needs to be completed." (Short 1/13/2014).

The buildings are scheduled for demolition by the end of 2014.

Figure 1: The project includes demolition of the Conelly Duplex Units, as well as associated infrastructure such as the asphalt paved road, streetlights and modern bus stops. Photo by S. Simpson, 8/24/2014. IMG_0093.jpg.

III. Survey Area

The survey area included the 25 duplex buildings on Conelly Drive and their associated structures and landscaping features. The entire survey area is located within the boundaries of the HWAD near Hawthorne, Mineral County, Nevada. The survey area likewise lies within the boundaries of the proposed Hawthorne NAD National Register Historic District.

The survey area comprises 29 acres.

Figure 2: Project Vicinity Map.

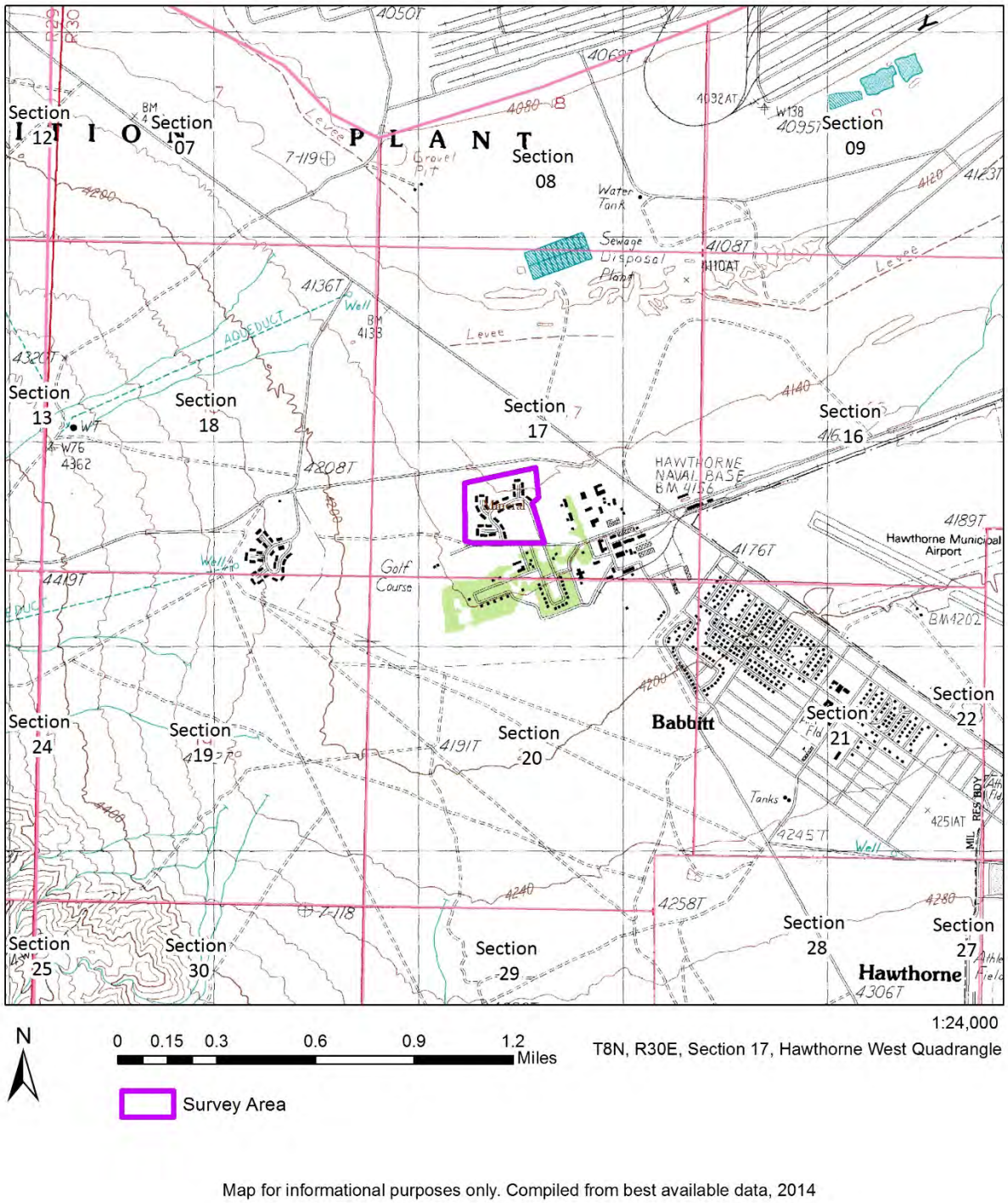

Figure 3: 1:24,000 Scale Topographical Map

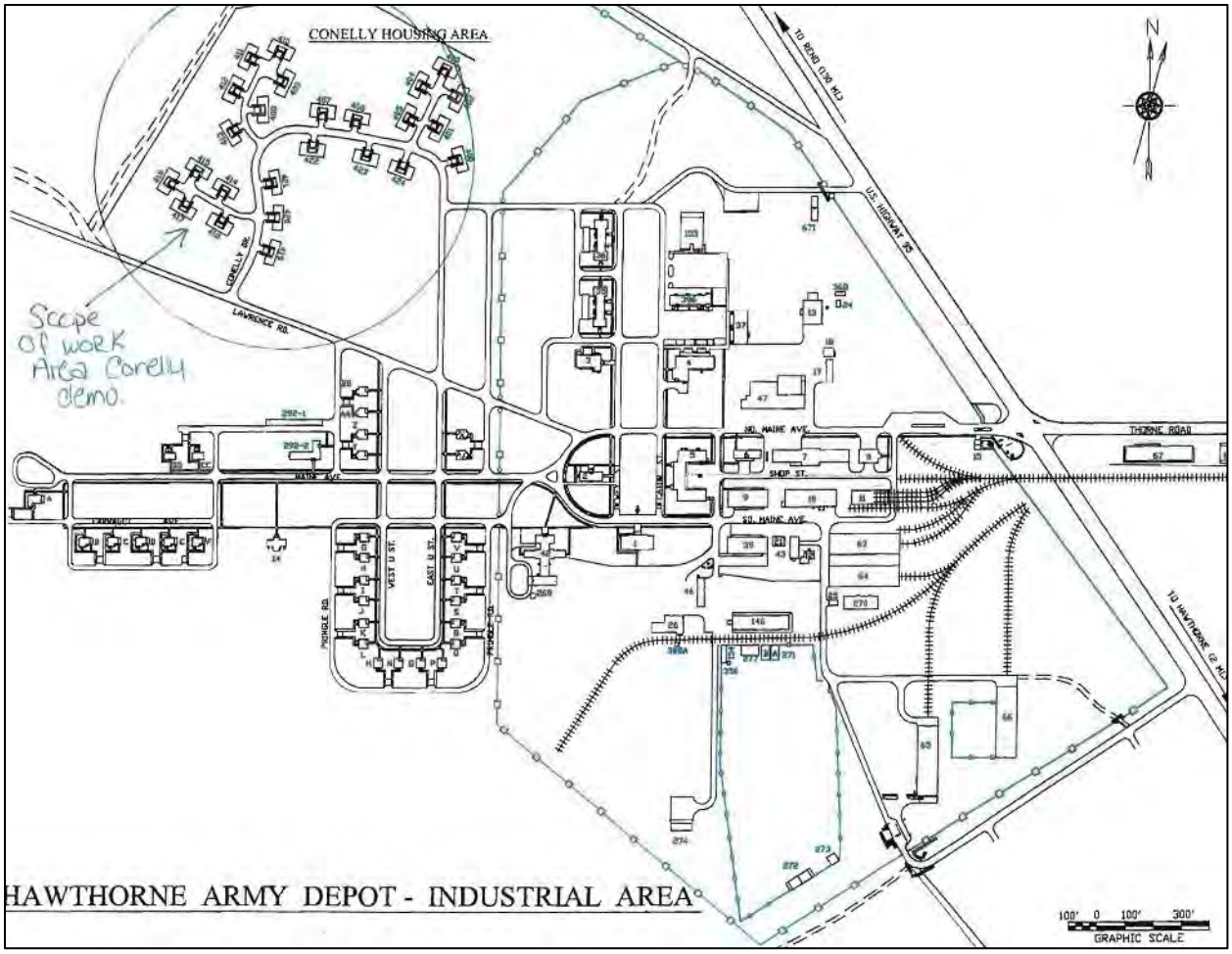

Figure 4: Hawthorne Army Depot Map. The blue line indicates a fence line. Map for informational purposes only, undated.

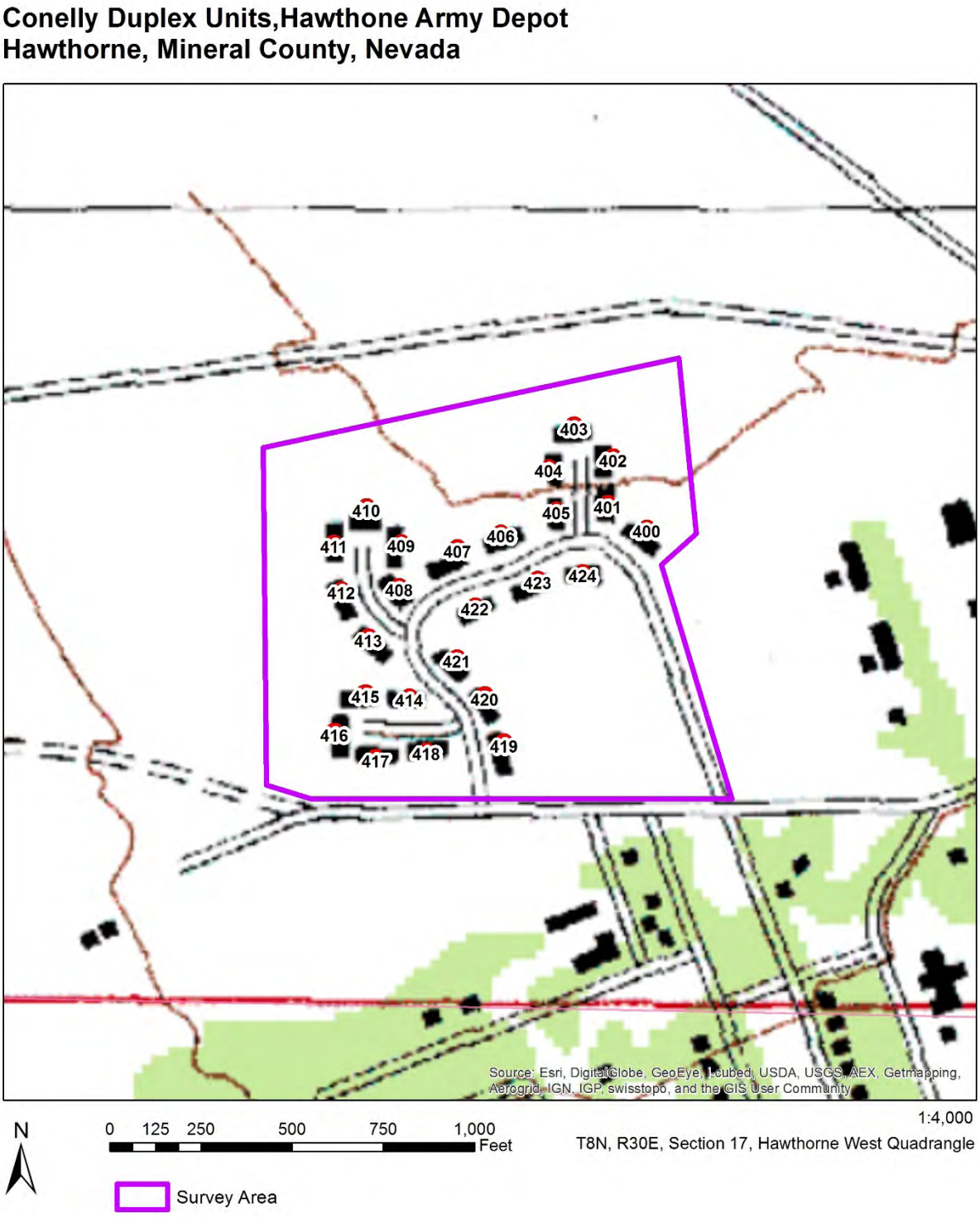

Figure 5: Detail Map of Survey Area.

Figure 6: Orthophoto Detail Map of Survey Area.

IV. Historic Context

The following historic context specific to the HWAD incorporates local phase sequences delineated from prior studies completed for the installation. These include the "Written Historical and Descriptive Data" compiled for a Historic American Engineering Record (HAER) inventory of structures at HWAD (McDonald 1984), and the "Integrated Cultural Resources Management Plan" (ICRMP; Securing Our Country [SOC], LCC 2013) recently developed for the HWAD. The ICRMP is a 5-year plan for managing the installations cultural resources. It provides guidelines and procedures to enable an installation to meet its legal responsibilities pertaining to cultural resources. Both reports include an in-depth cultural context specific to the area and the installation including defined historic periods of use (Table 1).

Table 1. Major periods of activity in the Hawthorne vicinity.

Major Period	**Sub-Periods**	**Time Frame**
Pre-installation Period		Pre-1928
	Early Exploration	Early 1800s
	Pre-settlement Mining	1851-1879
	Railroad Building and Initial Settlement	1880-1889
	Depression and Recovery	1890-1904
	Mining and Settlement	1905-1926
Installation Period		1928 to present
	Developmental	1928-1938
	World War II	1940s
	Post World War II	1945 to present

To allow for a proper analysis of significance the Conelly Housing Complex is further evaluated within a nationwide framework noting major trends in the history of military family housing included architectural design and military planning with particular emphasis on the Navy's Capehart program history and design implementations. Trends in national directives for military family housing have been delineated by period in *"For Want of a Home: A Historic Context for Wherry and Capehart Military Family Housing"* (U.S. Army 1998) and in the "*National Historic Context for Department of Defense Installations, 1790 – 1940"* (Cannan et al. 1995). The reports were designed to assist the Department of Defense in cultural resource compliance. As per the request of the *Advisory Council on Historic Preservation Notice, Approval of Program Comment on Army Capehart Housing and Wherry Era Housing* (United States Government Office of the Federal Register 2002), the first report has since been revised and expanded to provide more detailed information; including individual types of Capehart and Wherry housing that exist at each installation. The report titled, "*Housing an Army: The Wherry and Capehart Era Solutions to the Postwar Family Housing Shortage (1949-1962)"* was not available at the time of the current investigation (Kuranda 2003). An in-depth study of the history of the Wherry and Capehart housing programs has recently been compiled by R. Christopher Goodwin and Associates in support of the Departments of the Air Force and the Navy's execution of the Program Comment for Capehart and Wherry Era Housing at Air Force and Navy Bases (Peeler et al. 2007). This second report includes detailed information concerning the history of military housing and implementation of the Wherry and Capehart acts by the different branches of the military.

Pre-installation period (Pre-1930)

The history of the HWAD includes a Pre-installation Period, with exploration, settlement, mining, and railroad development themes relevant to the area.

Early Exploration (Early 1800s)

In the early 1800s, the Great Basin was one of the largest expanses of the United States that remained unexplored (Morgan 1997:36). Exploration of northern Nevada was first accomplished by fur trappers (Hulse 2004:36-41). At the time, fur hats and coats were a popular fashion in Europe and eastern North America as Wild West items that fueled the expansion for furs into the Great Basin by British and American enterprises. The Lewis and Clarke Expedition through the Rocky Mountains to the Columbia River between 1803 and 1806 was the first transcontinental expedition in the region to detail a rich land with large rivers and plenty of beaver and other fur bearing animals.

The first large scale and systematic fur trapping and trading in the region did not occur until the mid-1820s (Idaho State Historical Society 1985). In 1827, Jedediah Smith and two companions entered Nevada from California and continued east, crossing the Wassuk Range and passing south of Walker Lake through the future site of HWAD (Hulse 2004:38; Morgan 1953). Peter Skene Ogden with the Snake River division of the Hudson Bay Company spent six years (1824-1831) trapping wherever he anticipated American intrusion exploring territory across the Snake River area and the northern Great Basin. Ogden traveled from the Humboldt River, beyond the Humboldt Sink, to the Carson and Walker Rivers between 1828-1830 (Hulse 2004:39). In 1833, Joseph Walker, chief lieutenant for Captain Bonneville, led a party of explorers and trappers along the Humboldt River, up into the Sierra Nevada via the Carson or Walker River to California.

These early forays resulted in a loose collection of experiences concerning the Great Basin but did not result in a body of knowledge for the area in any official capacity. John C. Fremont, working for the Bureau of Topographical Engineers, was the first professional surveyor to enter the Great Basin. Through official government reports, Fremont provided detailed knowledge that contributed the most to the opening of the Great Basin and Nevada, making a significant contribution to the expansion of the American West (Egan 1985). Fremont recorded flora, fauna, and geological data in addition to travel routes, proper season of travel, necessary supply limits and other data that would make the journey possible. John C. Frémont made several expeditions across Nevada, and in 1843-1844 he encountered both Pyramid Lake and the Truckee River. Fremont passed through west central Nevada and camped on the shores of Walker Lake on November 24, 1845 while on his third western expedition in the years of 1845-1846 (Egan 1985:300-302). There were no known significant explorations made through this area in the years following Frémont's expedition.

Pre-settlement Mining Period (1851 to 1879)

The mining industry served as an early impetus for settlement in the region. The discovery of the Comstock Lode in 1858 roughly 100 miles to the northwest led to frequent prospecting throughout southwestern Nevada. By the late 1850s, individual hunters and prospectors were active in the Walker Lake area and surrounding mountains. Many of these early mining sites are defined by small, temporary camps composed of little more than tents. The resulting rush of miners led to increased confrontations between the Northern Paiute and Euro-Americans. In an attempt to end the violence, the federal government created the Walker River Reservation to the north of Walker Lake In late 1859 (Fowler and Liljeblad 1986).

During the fall of 1860, locals E.R. Hicks, J.M. Corey, and J.M. Braley discovered a gold vein while hunting in the mountains 20 miles south of Walker Lake (Lincoln 1982). Camp Esmeralda was established and soon hundreds of miners arrived. By 1864, the camp relocated north and was renamed Aurora. At its height, the community had more than 10,000 residents in addition to gold and silver processing facilities (Lincoln 1982). The early mining activity was focused around the periphery of the county but not near the future site of the HWAD. Settlement in the immediate area of the HWAD didn't take place until the

late 1870s, when unidentified miners set up camp at the south end of Walker Lake. By 1879 a small conglomeration of tents and shanties would be known as Hawthorne.

Railroad Building and Initial Settlement Period (1880 to 1889)

The lack of facilities in southern Nevada necessitated shipment of ore to facilities in northern Nevada and Utah for processing. Without a railroad the shipment of ore and supplies was an expensive and time-consuming undertaking. Ore had to be hauled by wagon and ox team, costing as much as five cents a pound (Myrick 1992:166). Investor Darius O. Mills proposed the construction of a new line through the region. On May 10, 1880, the Carson & Colorado Railroad Company (C&CRR) was incorporated. Among the board of directors was an H. M. Yerington, listed as president and superintendant, in addition to D. L. Bliss, D. A. Bender, and S. P. Smith.

Construction of the line took three years between 1880 and 1883 and extended south from Mound House to Hawley (Myrick 1992:174). On April 7, 1881, the final spike was driven in the line at Hawthorne completing the first major portion of the line. Hawthorne became a thriving town due to the new railroad and soon it had two hotels, three stores, seven saloons, two barber shops, one harness store, one hay and grain yard, one blacksmith shop, three China wash houses, and about two dozen tents. By 1882, the population of Hawthorne was some 200 residents. The community of Hawthorne grew in importance as a major distribution point for the Walker Lake region as hundreds of prospectors made their way into the area establishing satellite communities near their mines including Coreyville, McKenzieville, Pamlico, and La Panta. As mining activity around Aurora to the south declined Hawthorne became the county seat. Unfortunately, the prosperity of Hawthorne would be short-lived. As mining in the area declined by the 1990s so did the importance and activity in town.

Depression and Recovery Period (1890 to 1904)

Mining dominated the economy of Nevada. With the end of the Comstock and the decline in mining activity in the state, Nevada's economy plunged into a severe depression. With the lack of any other developed industry residents of Nevada were forced to develop alternative sources of income such as the agriculture and livestock industries. The C&CRR was on the verge of bankruptcy when the Southern Pacific Railroad (SPRR), which had recently acquired full ownership of the Central Pacific Railroad, purchased it in March of 1900. The purchase renewed interest in the Nevada railroad industry and attracted many new investors interested in expanding railroad opportunities in the state.

While Hawthorne was hit hard by the depression of the 1890s and a number of businesses that served the mining industry closed, Hawthorne's population continued to grow from 337 in 1890 to 436 by 1900. On May 19, 1900, a part-time prospector and miner named Jim Butler discovered a rich silver vein in the hills near the future site of Tonopah, approximately 90 miles southeast of Hawthorne (Elliott 1987). The discovery brought about a renewed faith in the mining industry and touched off a second phase of mineral exploration and development in the state. The new resurgence in mining, and the surprising amount of income generated from the Tonopah silver fields, was a tremendous boom to the economy of southern Nevada. It also led to further expansion of the C&CRR with a branch line completed to Tonopah in 1904.

Mining and Secondary Settlement Period (1905 to 1926)

By 1905, activity at the mines in Tonopah was at its height and traffic along the C&CRR line at an all-time high. The narrow-gauge line was inefficient for the transportation of large quantities of ore, freight, and passengers and was upgraded to a standard-gauge line. As part of the effort, sections of the rail line were straightened to increase efficiency and the depot at Hawthorne was relocated to Thorne, some eight miles northeast. This resulted in a significant loss of revenue for the town of Hawthorne, as

Thorne became the new center for hauling freight and passengers. However, the following year in 1906, the Paiute Indians ceded the southern portion of the Walker River Reservation to the government. The area was known to contain rich mineral deposits and thousands soon flocked to the struggling community of Hawthorne and a number of mining camps were established in the immediate area.

In July 1926, a fire destroyed a large section of Hawthorne including the entire business district and a portion of the residential section. One week after the fire, an explosion at the Lake Denmark (Naval) Ammunition Depot in New Jersey destroyed that facility, killing 50 people and injuring hundreds. The loss of life was devastating and the Navy sought to prevent another occurrence by relocating the facility to a sparsely populated area in the west. The area south of Walker Lake was selected in late 1926, and 135,000 acres were set aside for the facility. The opening of the Hawthorne Naval Ammunition Depot, in 1928 was a significant economic opportunity for Hawthorne.

The Fred Wallace Ranch

Mr. Fred Wallace owned much of the land that is now part of the Industrial/Residential area of the HWAD where the golf course and some of the officers homes on base are located (Glass 1984:10; Reno Evening Gazette [REG], 29 December 1950:2). Fred Wallace moved to Mineral County in 1906 from Santa Rosa, California for mining opportunities when the Walker River Indian Reservation lands on the south shore were first opened. He eventually acquired a ranch a short distance north of Hawthorne on the lower slope of Cat Creek. He sold his farm to the U.S. Navy in 1928 and moved to Hawthorne where he lived for many years until he passed away on December 24, 1950 (Nevada State Journal [NSJ], 26 December 1950:8). He was an active community member and was elected to the Mineral County Board of Education in 1926 (REG, 4 November 1926). He was later appointed Chief of Police for Hawthorne by County Commissioners (REG, 7 February 1934). The site of the old Wallace ranch home (Figure 1) became the location of the home of the Commanding Officer, and many of the trees in the area fronting Quarters A were planted by Mr. Wallace (REG, 29 December 1950:2).

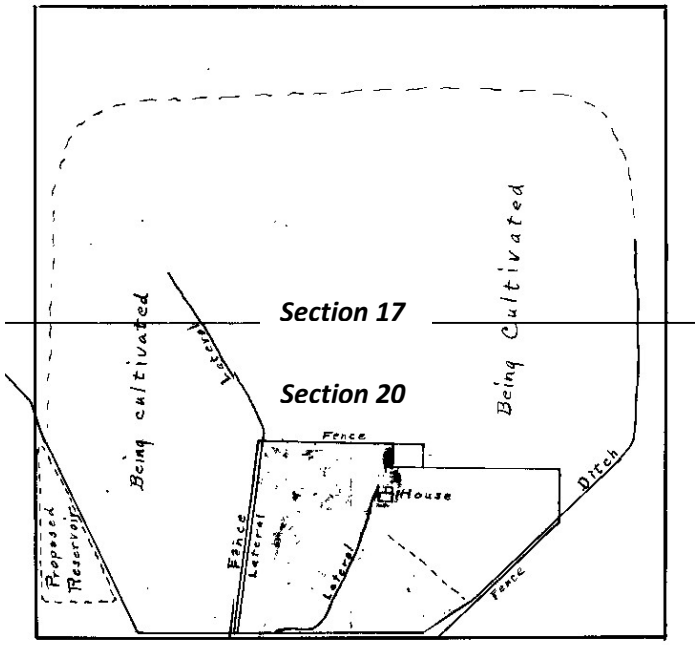

Figure 7. A plat map dated June 1917 (State of Nevada, Mineral County Plat Map) depicts irrigated land and ditch owned by a Fred Wallace.

Installation Period (1930 to the Present)

The "Breaking the Ground" ceremony for the Hawthorne Naval Ammunition Depot, held in July 24, 1928, attracted many local political figures and prominent citizens. The depot was designed as a state-of-the art ammunition storage facility in response to the explosion at Lake Denmark. It was designed to hold a large number of widely dispersed storage magazines to prevent sympathetic explosions should a fire occur in one of the magazines. The depot's architecture is tied to the development of mass production systems applied to the military production of munitions. The post was greatly expanded during World War II (WWII) where it served as a high explosive ammunition depot supporting the Pacific fleet. Commissioned in 1930, the facility served as the primary ammunition depot for the Pacific Region during WWII and for most of the twentieth century, it was the largest producer of mines and depth charges and largest ammunition depot in the world. At its peak, the depot covered 317 square miles, dominating the valley floor. In 1977, the facility was transferred to the U.S. Army and designated the Hawthorne Army Ammunition Plant (HWAAP). In 1980, the facility was converted to government-owned, contractor-operated with Day & Zimmermann/Basil Corporation serving as operator (McDonald 1984). With the loss of the Production Mobilization mission On October 1, 1994, the facility was re-designated the Hawthorne Army Depot (HWAD) now under the jurisdiction of the U.S. Army Joint Munitions Command.

Table 2. Major periods of activity at HWAD.

Period	**Time Frame**	**Significance**
Developmental	1928 to 1938	Initial construction
World War II	1940s	Peak Population and major period of construction
Post World War II		
NAD Hawthorne transferred to Army Hawthorne Army Ammunition Plant (HAAP)	October 1, 1977	assignment of the Commanding General, Headquarters, ARRCOM, as the Single Manager for Conventional Ammunition
HAAP Government Owned Contractor Operated	December 1, 1980	

Developmental Period (Construction and Operation 1928-1938)

Although the initial construction period at Hawthorne began with the groundbreaking in 1928 and lasted until 1938 the Hawthorne Naval Ammunitions Depot was formally commissioned in 1930. Construction was under the general supervision of the U.S. Navy Bureau of Yards & Docks. During the first decade construction focused on the Personnel and Industrial and Production sections, which housed residential and administrative buildings, and dozens of storage magazines. The Personnel and Industrial Area is the administrative core of the HWAD. It is off U.S. Highway 95, with North Maine Avenue serving as the primary roadway interconnecting administrative, residential and industrial operations zones. Constructed of Colonial and Spanish Colonial Revival architectural styles the residential and administrative buildings were arranged and landscaped as windbreaks to counteract the desolate landscape (McDonald 1984:19). The Mittry Brothers Construction Company built much of the depot during this period (Cannan et al. 1995).

World War II (Major Period of Construction 1940s)

The base underwent significant construction during WWII with most of the buildings within the Industrial and residential areas having been built. Construction was focused on enlarging workshops, maintenance, and warehousing capabilities, in addition to expanding housing to accommodate an

enlarged workforce including apartments, bachelor's quarters, Marine barracks (Building A37), and family housing units (McDonald 1984:46). In 1943, the Navy provided 240 additional low-cost family housing units in the community of Babbitt. The town was located along Highway 95 between the Industrial Area of the installation and the town of Hawthorne and provided a range of community services including a school, library, bank, recreational facilities and shopping. All buildings were of wood frame construction.

Post World War II (1945 to present)

Construction activity was much more limited following WWII. Construction resumed during the Korean conflict. Babbitt housing was expanded to include 487 housing units. In support of efforts for the conflict in Southeast Asia an additional 100 family duplex units within and immediately west of the Personnel and Industrial Area were constructed in 1969 including the Conelly and Schweer Housing complexes.

In November of 1967, there was a need for additional ordnance workers at the NAD Hawthorne Depot due to the addition of a bomb line (Mineral County Independent 1967). However, all Babbitt houses were occupied. Senator Alan Bible, Chairman of the Appropriations Subcommittee on Military Construction, obtained full approval for the construction of 100 family housing units at the Hawthorne Naval Ammunition Depot in direct support of the Vietnam Conflict. Senator Alan Bible is quoted in a November 15, 1967 article of the Mineral County Independent, "This housing for military men and their families is essential if the Hawthorne facility is to carry out its vital Vietnam support mission properly."

The additional housing was designed by the U.S. Navy Bureau of Yards & Docks and built in 1969 as two developments: the Conelly and Schweer, or Schweer Drive Housing Area (SDHA; United States [U.S.] of America Department of the Army 2014). The housing was comprised of single story duplex units for non-commissioned officers and their families. Both developments are located on the northwest edge of the Personnel & Industrial Area in cluster plans. Demolition of excess buildings and infrastructure in the SDHA was completed in 2003. The Conelly Duplex Units are 40' X 88', one story, and wood framed with vinyl siding on a concrete foundation. Each unit varies between 2,496 and 2,896 total square feet (Figures 8 and 9). The walls were initially constructed of vertical board-and-batten wood siding with casement windows and single-leaf doors. The roofs are gable and were installed with built-up gravel roofing on wood trusses and decking. The units were built using aluminum wiring, with minimal insulation and single-pane aluminum slider windows. Prefabricated, 20' x 20' metal carports, concrete foundations, sidewalks, electrical lights, and related work was installed in 1975. After the facility was converted to government-owned, contractor-operated status, contractors and their families occupied the housing units.

Figure 8. Conelly Housing Units along Conelly Drive prior to installation of carports.

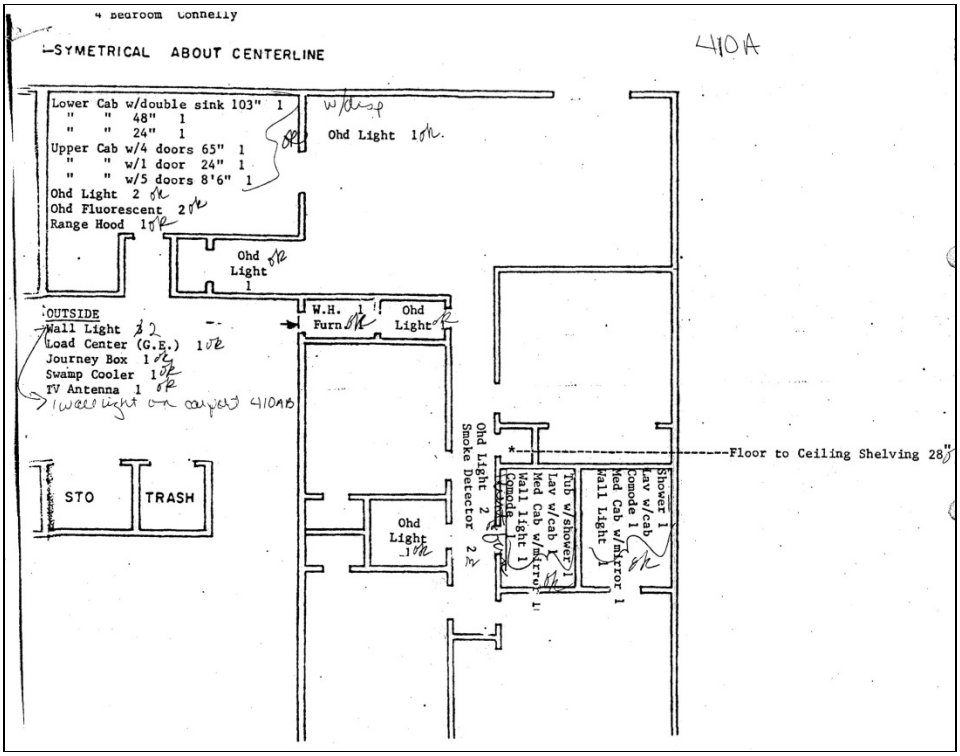

Figure 9. Conelly Duplex Unit plan with structure center to the left.

Many of the buildings on the installation have been named for important individuals in HWAD's history. Captain W. W. Schweer served as Hawthorne Army Depot Commander from August of 1964 to July of 1968. The Conelly Duplex Units are most likely named for an Allan Conelly. According to long time Hawthorne resident Edward L. Pine (Glass 1984:11) there were two Connelly families from the Hawthorne area including the Tom Connelly family with a number of children, and a John Connelly who served as county clerk and had three children. Tom Connelly had a son named Allan, born 1915, who worked at the depot at Hawthorne for 34 years as a civilian employee (Mineral County Independent [MCI]-News, 11/11/2010; NSJ, 7/14/1972). In 1957, he was identified as being with the Ordnance Improvement Training Division at the depot (NSJ, 2/22/1957). When he retired from the Navy, he became active in political areas. In 1964, he was the NAD Conservation Chairman working with the Nevada Fish and Game department (REG, 1/20/1964). He first served as a County Commissioner in 1974. He died in November of 1990 while Chairman of the County Commissioners.

History of Military Housing

The military has a long history of providing housing for military personnel. The demand for military family housing is a reflection of the changes within the military. The occurrence of military conflicts has dramatically affected troop levels and the need for family housing. Additionally, the competition for military resources has impacted the financing and development of housing. Trends in military residential housing construction and architecture follow similar trends in the civilian market (Peeler et al. 2007:49). New trends in civilian housing that emerged during the late 1940s, the 1950s, and the 1960s were reflected in military construction. Rising marriage rates, changing demographics in the workforce, and increasing family wealth resulted in a postwar housing boom. Innovations in housing construction focused on the expanding market for single-family houses in suburban developments.

Military housing was typically segregated by rank. Due to the lack of adequate housing around the early part of the twentieth century, officers were typically stationed on post without their families. The post commander was often the only officer afforded adequate housing. The military instituted a series of development programs over the years in response for their need to house military personnel. American military family housing can be divided into four major development periods (Table 3):

Table 3. Major periods of military family housing.

Development Period	**Time Frame**
Inter-War	1919-1939
Wherry and Capehart housing	1950s to 1964
Section 801 and 802 programs	1980s, and
Privatization	1996 to present

Inter-War Period

Construction of family housing had stopped during World War I but resumed by the late 1920s leading to the construction of more family housing on military installations than before. At first only a limited number of housing units were built and those constructed came under severe criticism. The living conditions on most installations were deemed inadequate. In 1926, in attempt to address growing concerns over the deplorable living conditions reported at the nation's military installations Congress passed Public Law 25. The law allowed the Secretary of War to construct new installations, including housing, using the profits from the sale of 43 decommissioned posts. Money received from the sales was deposited into a special fund designated the "Military Post Construction Fund."

While there were a variety of standardized plans available for officer housing they followed distinct regional architectural styles, particularly Spanish Colonial and Georgian Colonial Revival Styles (Figure 10; Cannan et al. 1995:357). Georgian Colonial Revival was constructed from the Mid-Atlantic north to New England and the Pacific Northwest. Spanish Colonial Style was popular in hotter climates of the Southeast and Southwest. Red brick facades, strict symmetry, and pedimented central pavilions characterize the Georgian Colonial Revival style. Stucco walls and clay tile roofs characterized the Spanish Colonial Revival style. Two-story duplex quarters as well as single-family cottages were popular (Cannan et al. 1995:358).

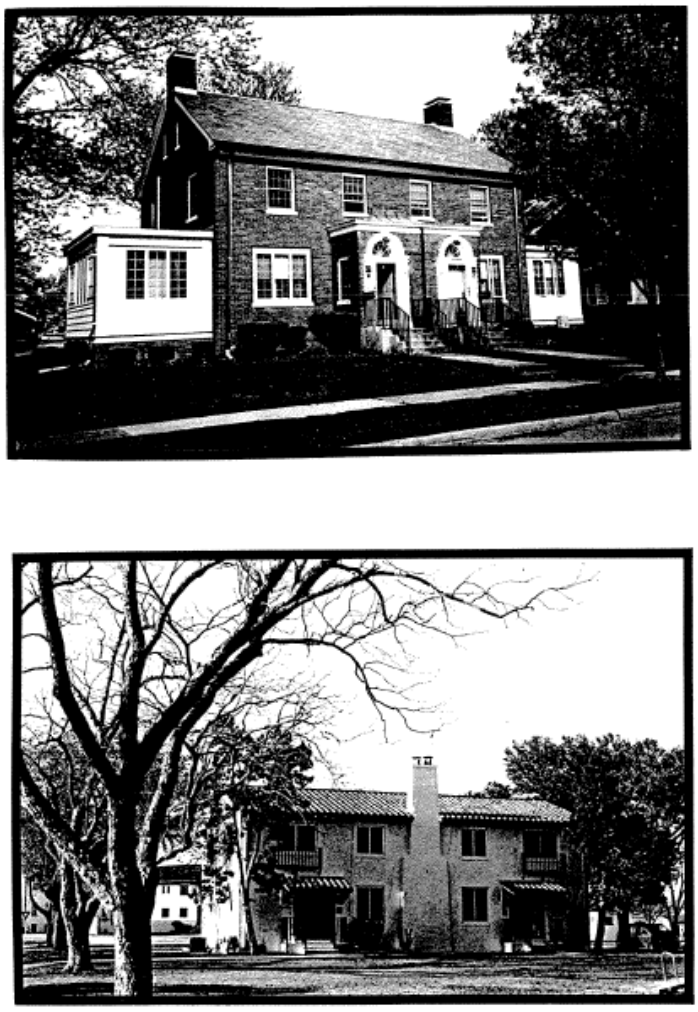

Figure 10. Non-commissioned officers (NCO) quarters constructed in 1931, Georgian Colonial Revival (top photo: Building 671, Scott Air Force Base [AFB], Illinois), Spanish Colonial Revival (bottom photo: Building 817, Randolph AFB, Texas; Cannan et al. 1995).

In the early decades of the twentieth century, the U.S. Navy had a smaller housing requirement than the Army. There were fewer Navy personnel and most personnel were stationed aboard ships. Residential housing at Naval installations typically had a "Quarters A" reserved for the commanding officer and a few other officer's quarters nearby (Cannan et al. 1995:373). Since the Navy built fewer houses, it

seemed to rely less on standardized plans. Civilian architects or staff in the Navy's Bureau of Yards & Docks or the installation's Public Works office typically drew house plans. The early residential housing at HWAD includes a mixture of both regional styles. An architectural inventory of the installation conducted in 1984 by McDonald (1984:19) identifies the quarters at HWAD as "substantially constructed of brick and poured concrete in Colonial and Spanish Colonial Revival architectural styles accompanied by buildings of a modest, strictly utilitarian nature."

Wherry-Capehart Housing

The construction of permanent housing came to an end in preparation for WWII. In the years immediately after the War, the U.S. Army faced the biggest housing crisis in its history. Although the military quickly demobilized millions of men, the military needed to maintain a large peacetime fighting force due to the "Cold War." This created a peacetime military by the late 1940s, which was seven times larger than it had been in the late 1930s. Adding to the need for housing, the military started to provide family housing for enlisted men, something that had not been done prior to WWII.

In cases where government housing was not available, eligible officers and soldiers received a basic allowance for quarters (referred to as BAQ). Military personnel were able to use the allowance for housing in the private market. Preferring to quarter its personnel on its installations, the military made family housing a priority. In 1948, Congress passed Public Law 626, implementing three significant policy changes:

1. Cost limitations were repealed, and size limitations were implemented.
2. Family housing was made available for enlisted men. This was considered an incentive for men to remain in the military after their enlistment period ended.
3. The $5,000 spending per unit limit was repealed. The limit had been placed on the construction of buildings or installations without approval of the Secretary of War.

The law required family housing to meet certain space requirements: 1,080 sq. ft. for enlisted men; 1,250 square feet for warrant officers, flight officers, and commissioned officers of or below the rank of captain; 1,400 sq. ft. for majors and lieutenant colonels; 1,670 sq. ft. for colonels and 2,100 sq. ft. for general officers. The law also included provisions for the construction of "multi-type" family housing, consisting of units for eight families, or "apartment-type" housing, with six families to a unit.

Wherry Housing

The President and Congress turned to the private sector to provide financing. During the late 1940s, Senator Kenneth Wherry of Nebraska introduced a bill to add Title VIII to the National Housing Act. President Harry Truman signed the bill into law Aug. 8, 1949. Under the Wherry plan, developers leased land from the military and obtained low-interest loans insured by the Federal Housing Administration (FHA) to construct, own, and maintain the residences. The cost of the Wherry housing was kept low to ensure military families would use their BAQ money to rent the quarters. The plans and materials were not designed specifically for military application. They were drawn directly from existing house plans and apartment or rowhouse plans that were being built in the civilian market (U.S. Army 1998:46-49). Initially, the single-family homes and duplexes were eliminated on the basis of cost however, they offered more privacy and preferred by occupants.

Fort Knox, one of the nation's first Wherry projects, contained 1,000 units of one, two, and three bedroom apartments within two-story brick row houses. All three services exhibited diversity in plans

and planning with noticeable variations between the branches. Housing units for the Army were typically of brick, brick and frame, cement block, or frame and stucco. Those built by the Navy and Air Force were usually wood framed, although some were masonry and brick veneer. Sizes varied slightly between the services as well. Navy quarters were smallest, averaging about 768 square feet, while Army houses averaged 831 square feet, and Air Force homes averaged about 835 square feet. Most had compact kitchens, combined living and dining areas, and minimal hallways. Some had carports and few had garages.

When housing costs jumped in the early 1950s, Wherry housing became small, expensive rental housing that appealed to few of its potential customers. In the spring of 1954, scandal rocked the program. A congressional investigation of corruption proved that Wherry projects were not immune to fraud. Problems surfaced as private developers discovered loopholes in the law that enabled them to construct projects for less than the amount approved by Congress to their financial advantage (Peeler et al. 2007:82). The unpopular program died a slow death, with few Wherry projects initiated after August 2, 1954. Several months later, in the spring of 1955, the Senate Banking and Currency Committee began hearings on legislation to replace the Wherry program. New legislation was sponsored by U.S. Senator Homer E. Capehart of Indiana, and the bill was signed by President Eisenhower on Aug. 11, 1955. Unlike the Wherry project, Capehart projects came under military control as soon as they were completed, so military personnel forfeited their housing allowance. The military then used this money to pay off the Capehart mortgages.

Capehart

Capehart housing was built to larger specifications than the Wherry projects and would consist of more single-family and duplex-style homes than its predecessor (U.S. Army 1998:60-62). In a number of cases the first Capehart projects were those that had been planned but not yet funded under the Wherry program. Therefore, Wherry and Capehart housing at some installations were virtually identical. It was in later Capehart projects that differences became noticeable. Planners and the military had gained enough experience in large-scale housing projects by 1955 to set realistic goals and guidelines and could make recommendations in areas that would increase resident satisfaction and reduce overall project cost.

In the “Department of Defense (DoD) Criteria for Family Housing," issued in January of 1955, the Assistant Secretary of Defense urged planning to focus on the community as a whole, privacy, the preservation of the natural environment, and the integration of the neighborhood within existing base facilities (U.S. Army 1998:61). There was a greater movement toward single-family and duplex housing and the breakup of the grid like pattern, common for Wherry Housing, to the placement of housing units over a very wide area. To ensure greater privacy, bedrooms in duplexes were typically placed at opposite ends of the structure. Often garages or carports were designed toward the center of a duplex serving to separate the units. Concern over the safety of small children was another key issue in a community of growing families and many Capehart developments were designed with enclosed play areas and wide greenbelts between back yards.

Figure 11. Capehart Duplex constructed in 1961 Port Hueneme, Naval Base Ventura County (NBVC), California (Peeler et al. 2007:Figure 15).

Planning in Capehart neighborhoods followed an identical approach to those in most civilian neighborhoods of the day. The DoD recommended that attention also be paid to region and recommended the construction of one-story houses in mild and hot climates and two-story homes for colder climates where the protection of foundations and utilities were a key concern. Roofs in warm climates were to have no greater than a 2 ½:1 pitch with a steeper pitch allowed in regions with heavy snowfall. To maintain costs and allow for versatility, Capehart legislation required plans to be based on modular units that would permit conventional construction, prefabrication, factory pre-cutting, or any combination of these. Simple rectangular forms were sought to further limit costs. Outdoor spaces became prominent concerns in military and civilian neighborhoods alike. The military encouraged densities of four to six units per acre for single family housing, six to eight units per acre for semi-detached, and eight to fourteen for row houses. Parks were planned in proportion to the population density, with 4.5 acres set aside for single and semi-detached housing areas, and at least 5.5 acres in row house areas. By the mid-1950s, most single-family houses and duplexes had garages or carports that served as dividers between the two sides of the duplex. Driveways were made to accommodate not one, but two cars. Curbs lined the streets in an effort to keep vehicles off the lawns.

Personnel entitled to Capehart family housing included married officers, married warrant officers, and married enlisted personnel with E-7, E-6, or E-5 ratings, or personnel with an E-4 rating and more than seven years of service (Peeler et al. 2007:84). Key civilian personnel also qualified for Capehart housing if they resided on base through military necessity. Capehart projects conducted by the navy were designed by the Bureau of Yards & Docks. The District Public Works Officer (DPWO) would consult with the installation Commanding Officer on project implementation. The DPWO selected and negotiated contracts with successful architectural and engineering firms and worked closely throughout the design

process. Plans and specifications complied with the Bureau of Yards & Docks design criteria, technical publications, and special instructions issued by the base commander. A minimum of three architectural and engineering firms were interviewed for each project and prior experience in designing housing that met FHA standards, particularly "large tract housing" were important considerations in firm selection. To avoid political pressure or lobbying by the local construction industry, the Navy generally selected architects from outside the immediate area of the proposed Capehart project.

The Navy sought to integrate as many amenities as possible in the Capehart projects. Such amenities, or "additive items," included clothes washers, vinyl and terrazzo flooring, master TV antennas, garbage disposals, range hoods and fans, screened porches, and sidewalks. To expedite projects standardized plans and a limited number of house types was implemented in design. As a result, exterior design of the dwellings reflected local and regional architectural influences, while interiors were more standardized. While the Navy updated the Capehart design criteria almost yearly, few substantive changes were made to the overall standards. Regardless of the funding source, designs and features of housing constructed by the Navy followed the same design parameters as houses built under the Capehart Program (Peeler et al. 2007:114).

The Capehart housing design criteria established general parameters for the Navy's housing program. Construction standards met or exceeded those established in the FHA's Minimum Property Standards or the *Design Standards for Construction of Permanent Family Housing for Federal Personnel* (Housing and Home Financing Agency 1953). Gently winding roads that followed natural contours or looped streets were preferred. Children's play areas were to be located at the rears of the housing units, with a neighborhood play area centrally located.

The most significant difference among the Army, Air Force, and Navy implementations of the Wherry and Capehart programs was standardization in architectural plans. The Army's adoption of standardized plans resulted in a greater degree of similarity in Army housing from region to region than is evident in the housing built by the Air Force and the Navy. Air Force and Navy Wherry and Capehart era family housing demonstrated greater variety in design and materials than did housing constructed for the Army. A secondary difference among the services was the type of housing constructed. Each service constructed a significant number of single-family and duplex units; however, the Army constructed many more multi-family units than did the Air Force and the Navy. This was particularly true under the Capehart program. Air Force and Navy policy stressed the construction of single-family and duplex units over the construction of multi-family units.

The Capehart program was the largest housing privatization program in the Army's history, followed closely by its predecessor, the Wherry program. When the Capehart program came to an end in 1964, nearly 250,000 units had been built for the military at its installations under the programs. At the end of 1994, about 175,000 of these homes were still in existence. Between 1949 and 1962, the Wherry and Capehart programs produced about 200,000 family housing units for the Defense Department, the largest peacetime expansion of housing in the Army's history. By 1961, the Navy had created a comprehensive family housing program with well-developed expertise in programming, construction, and management. In a 1961 draft report, an advisory panel appointed to appraise the Navy's family housing program recommended that the Air Force and Army emulate the Navy's program. In the early 1960s, the privatization programs fell out of favor with Congress, and the Defense Department returned to building housing with appropriated funds. Although Congress had pledged to continue the rapid pace of housing construction, the war in Southeast Asia soon relegated housing to a low priority during the Vietnam conflict. Although the Capehart program and funding ended in 1964, the Schweer and Conelly

units were built at the Naval Ammunition Depot at Hawthorne in 1969 following the Navy's Capehart design criteria but within a trend towards larger unit size over the duration of its implementation (Peeler et al. 2007:155-156).

Section 801 and 802 Programs: The Reagan Years

The 1960s would see family housing on the decline. Once again funding was at a minimum with the war in Southeast Asia. After the conflict, in an effort to make military service more attractive for a volunteer force, a brief surge of family housing construction occurred in the mid-1970s. However, by the late 1970s the funding was reduced substantially. In the 1980s, family housing was again a high priority for the Defense Department. Established two decades after the Capehart program ended, the Build-to-Lease and Domestic Rental Guarantee programs were much smaller, but grew out of the Defense Department's experiences in the earlier privatization programs.

In 1983, the Reagan administration proposed a new housing program, the "Housing Assurance Program," to encourage private developers to build new rental housing units near installations, not on government land. These units, unlike the Wherry-Capehart developments, would not be purchased by the Defense Department, but rather remain in the private sector. On October 11, 1983, President Ronald Reagan signed the Military Construction Authorization Act, legislation that established Section 801 and Section 802. These projects could not be built at any installation without showing that there was a family housing deficit on post.

Privatization: Post Cold War

On Feb. 10, 1996, Congress passed the Military Housing Privatization Initiative (MHPI), as part of the National Defense Authorization Act, which authored a program called the Residential Communities Initiative (RCI) to privatize Army family housing (Fort Belvoir 2014). By October 2005, the Department of Defense had completed 53 transactions for privatization projects totaling over 111,000 family housing units.

V. Identification of Historic Properties

Methodology

Archival Research

Extensive efforts were made to locate primary documents relating to the development and construction of the Conelly Duplex Units. An archival records search was conducted at the Nevada Historical Society office on the University of Nevada campus in Reno on August 22, 2014. In addition, archival research was conducted at the Mineral County Historical Society in Hawthorne, Nevada and at HWAD on August 25 to 26, 2014. Sue Silver, Assistant Director of the Mineral County Museum, provided a great deal of assistance with archival information concerning Pine Grove. Previous architectural documentation within one mile of the survey area, and research related to HWAD are listed in Table 4.

Table 4. Previous Documentation within One Mile of Survey Area.

Date	Title	Author	Agency
2013	*Integrated Cultural Resources Management Plan (ICRMP) for Hawthorne Army Depot, Hawthorne Nevada*	Securing Our Country (SOC) LCC	US Army
2007	*A Cultural Resources Inventory of the Hawthorne Water Systems Project, Babbitt, Mineral County, Nevada*	D. J. McCarty (Kautz Environmental Consultants, Inc.)	Economic Development Administration
2000	*Army Ammunition and Explosive Storage in the United States: 1775-1945*	Joseph Murphy, Dwight Packer, Cynthia Savage, Duane E. Peter, and Marsha Prior	US Army Corps of Engineers, Ft. Worth District
1998	*For Want of a Home: A Historic Context for Wherry and Capehart Military Family Housing*	United States Army Environmental Center	United States Army Environmental Center
1990	*Historic American Building Survey: Hawthorne Navy Ammunition Depot, Hawthorne, Nevada, Greenhouse (Building No. 20), HABS No. NV-21-A*	Koval (Rainshadow Associates)	National Park Service
1989	*Draft National Register of Historic Places Registration Form: Hawthorne Naval Ammunition Depot*	Ana Koval (Rainshadow Associates)	Unknown
1984	*Historic American Engineering Record: Hawthorne Army Ammunition Plant, Hawthorne, Mineral County, Nevada*	Stewart MacDonald	National Park Service

An additional architectural survey was completed in the town of Hawthorne, about two miles from the survey area (Table 5).

Table 5. Previous documentation within Two Miles of Survey Area.

Date	Title	Author	Agency
1997	*An Historical Survey and National Register of Historic Places, Eligibility Recommendations for Structures Present Along One (1) Mile of Fifth Street (SR 95), Hawthorne, Mineral County, Nevada*	John Hohmann and Don Ryden (Louis Berger & Associates)	Federal Highway Administration

The documentation from the 1980s was excellent for pre-WWII era buildings and structures at HWAD. However, the historic associations with post-WWII periods of historic significance at HWAD, such as the Cold War Era, the Korean War, the Vietnam Conflict and, more recently, various wars and conflicts in the Middle East, were naturally not addressed at that time.

It became apparent that a nationwide (or at least a statewide) context on military housing built to support the Vietnam Conflict efforts was required for a truly comprehensive understanding of the significance of the Conelly Duplex Units. Basic questions could not be answered, such as: were the plans for the Conelly Duplex Units built at other military installations? If so, are they still standing and what is their level of integrity? How many housing complexes were built in the US/Nevada in support of the Vietnam Conflict? Were they similar in design? How many are extant?

Unfortunately, a national or statewide context on Vietnam-era military housing could not be completed within the time-frame and funding available for this project. The author acknowledges that there is missing information that would provide a more complete picture of Vietnam-era military housing, but is confident that there is enough information to make an informed evaluation of the NRHP eligibility for the Conelly Duplex Units.

Survey Crew

The architectural survey of the Conelly Duplex Units was conducted on August 24, 2014. Personnel included Elizabeth Dickey, architectural historian subcontracted to Mesa Field Services; Sean Simpson, Mesa Field Services archaeologist; and Michael Ufford, HWAD National Environmental Policy Act Specialist.

Field Work

Sean Simpson took a minimum of three photographs of each building, including views of the front and the rear facades of each building. Dickey and Ufford visually inspected every building. A field survey form was completed for each building (comprising two duplex units), noting architectural details such as the foundation type, wall materials, window types, roofing, and landscaping. There was very little variation among the buildings and special attention was paid to any anomaly such as landscaping features.

The interior of three units were inspected: Unit 420 Conelly Drive Unit B, 418 Conelly Drive Unit B, and 410 Conelly Drive Units A and B. 420 Conelly Drive was inspected because it appeared to be the only

building that had been used for something other than housing. It was recently used as a storage building. The other two units were selected at random.

UTM Points

Universal Transverse Mercator (UTM) points for each unit were determined using a geo-referenced ortho-photograph and ESRI ArcGIS software. The UTMs were determined for the center of the building.

Resources Less than 50 Years of Age

The National Park Service advises that resources less than 50 years of age should not be considered eligible for the NRHP unless they possess "exceptional significance." The rationale behind the "50-year rule," as it is commonly referred to, is that it allows for sufficient passage of time for a particular person, event, or object to be placed in its historical perspective.

The Conelly Duplex Units were constructed in 1969, making them 45 years of age at the time of this evaluation. In consultation with the SHPO, it was decided to evaluate the Conelly Housing Units as if they met the 50 year threshold. They are so close to being 50 years old that there is little danger events in the next five years will alter their historic significance. With the demolition of the Schweer Drive Housing Area in 2003, the Conelly Duplex Units are now the last remaining vestiges of Vietnam War-era housing at HWAD. The resources were not assessed for "exceptional significance" under criterion consideration g.

Architectural Resource Assessment (ARA) Forms

As previously discussed with the SHPO, Architectural Resource Assessment (ARA) forms were not completed for the buildings. The field assessment forms with three photographs of each building are included in Appendix A. SHPO Resource ID numbers were assigned for the duplex buildings (see Table 6). While the considerably shorter field assessment forms do not meet the Nevada Cultural Resource Information System (NVCRIS) requirements, it is anticipated that ARA forms will be completed at a later stage in the Section 106 consultation process.

Table 6. Properties Documented on an Architectural Field Forms.

	SHPO ID #	Address	Street	Built
1	B13502	400	Conelly Drive	1969
2	B13503	401	Conelly Drive	1969
3	B13504	402	Conelly Drive	1969
4	B13505	403	Conelly Drive	1969
5	B13506	404	Conelly Drive	1969
6	B13507	405	Conelly Drive	1969
7	B13508	406	Conelly Drive	1969
8	B13509	407	Conelly Drive	1969
9	B13510	408	Conelly Drive	1969
10	B13511	409	Conelly Drive	1969
11	B13512	410	Conelly Drive	1969
12	B13513	411	Conelly Drive	1969
13	B13514	412	Conelly Drive	1969
14	B13515	413	Conelly Drive	1969
15	B13516	414	Conelly Drive	1969
16	B13517	415	Conelly Drive	1969
17	B13518	416	Conelly Drive	1969
18	B13519	417	Conelly Drive	1969
19	B13520	418	Conelly Drive	1969
20	B13521	419	Conelly Drive	1969
21	B13522	420	Conelly Drive	1969
22	B13523	421	Conelly Drive	1969
23	B13524	422	Conelly Drive	1969
24	B13525	423	Conelly Drive	1969
25	B13526	424	Conelly Drive	1969

Resource Description

The Conelly Housing Complex Layout

The Conelly Housing Complex contains 25 duplex buildings arranged along Conelly Drive and clustered around three spur roads. Unattributed historic notes dating to the late 1960s or early 1970s record some of the rationale behind the design layout. They indicate that the clustered layout was chosen because it required fewer sewage pipes and shorter roads, as opposed to arranging the houses along traditional rectilinear blocks (notes on file at HWAD, “Conelly” File).

Collectively, the units could house 50 military personnel and their families. The one-story duplexes were designed by the U.S. Navy Bureau of Yards & Docks and constructed in 1969 in the Contemporary style. The asphalt road has asphalt curbing, an unusual feature not seen elsewhere on the Depot. Concrete-lined drainage ditches cleared the roads after heavy rains. An occasional modern glass and metal bus stop shelter for school children and cobra head streetlights on an aluminum poles have subsequently been installed along the streets. Both of these features appear modern and were not historic features. There are no sidewalks.

Figure 12: Duplex units arranged along a curving Conelly Drive. The windows have been boarded up but the original aluminum slider windows are still in place. Photo by S. Simpson, 8/24/2014. IMG_0138.jpg.

Figure 13: Fire hydrant displaying the date "1969" located above the hose cap and below the top cap. The duplexes were arranged in clusters to reduce the length of sewer pipes needed. Photo by S. Simpson, 8/24/2014. IMG_0119.jpg

Duplex Exterior

Although all of the units have the same square footage (about 1,434 square feet per individual unit), they are either three-bedroom or four-bedroom units with a "U" shaped footprint. The duplex units have overall dimensions of 46' x 88' and 2,869 square feet total. A freestanding storage building is in front of the front doors, creating a private entrance and courtyard. In 1975, flat roofed carports were added in front of every storage building.

Each building has a poured concrete foundation. The wood grain imprint from the concrete molds is visible. In 1969, the buildings had wood board and batten siding, painted a medium brown. The battens were removed and the buildings were covered with a layer of rigid insulation and vinyl siding during the 1990s. The vinyl siding resembles horizontal lapboard siding and is tan in color.

The buildings retain their original aluminum slider windows with a fixed lite above and a fixed lite below the moveable window. Unlike most Contemporary-style homes, the windows have a vertical axis. The windows extend from the roof line almost to the foundation. The low-pitched roofs have a broad overhang, a thoughtful detail given the extreme temperatures in the Nevada summer. Each unit was cooled by an evaporative cooler. The heavy ridge beam and two purlins are extended in the gable. Originally, the duplexes had an asphalt and gravel roof and the rafters extended beyond the drip line. The roofing has been replaced with composition shingles. The rafters have been altered or replaced so that they are now flush with the drip line.

Figure 14: Unidentified Conelly Duplex prior to the installation of the carports in 1975. Photographer and date unknown. (HWAD files, Conelly Duplex Units.)

Figure 75: Unidentified Conelly Duplex after the carports were installed in 1975, but before the original board and batten siding was covered with vinyl siding in the 1990s. Photographer and date unknown. (HWAD files, Conelly Duplex Units.)

Figure 86: Rear of an unidentified Conelly Duplex after the installation of vinyl siding. The original roof with rafter tails and purlins projecting beyond the drip line is still intact. The roofs were later altered to a composition shingle roof and the rafters and purlins were either shortened, or the roof was extended so they no longer projected beyond the drip line. Photographer and date unknown. (HWAD files, Conelly Duplex Units.)

Figure 97: Exterior of Duplex Unit 422 A & B. In 1975, the carports were added to the front of the storage building. Photo by S. Simpson 8/24/2014. IMG_0140.jpg

Figure 108: The front entrance to the duplex units. The pony wall to the right separates a graveled courtyard that was used for air drying laundry and accessing the storage structure. The door on the right opens from the kitchen directly into the courtyard. The board by the front door covers a large fixed window that lights the entry area. Photo by S. Simpson, 8/24/2014. (Note: the date on the photo stamp is incorrect.) IMG_0013.jpg.

Figure 119: Door exiting from the kitchen into the courtyard. Photo by S. Simpson, 8/24/2014. IMG_0014.jpg.

Figure 20: Detail of original aluminum and glass exterior light fixture. Most of the duplexes retain their original glass and aluminum exterior light fixtures. Photo by S. Simpson, 8/24/2014. IMG_0046.jpg

Figure 21: Roofing detail. The original rafters were not clipped, as seen here. Photo by S. Simpson, 8/24/2014 (Note: date stamp on photo is incorrect.) IMG_0055.jpg

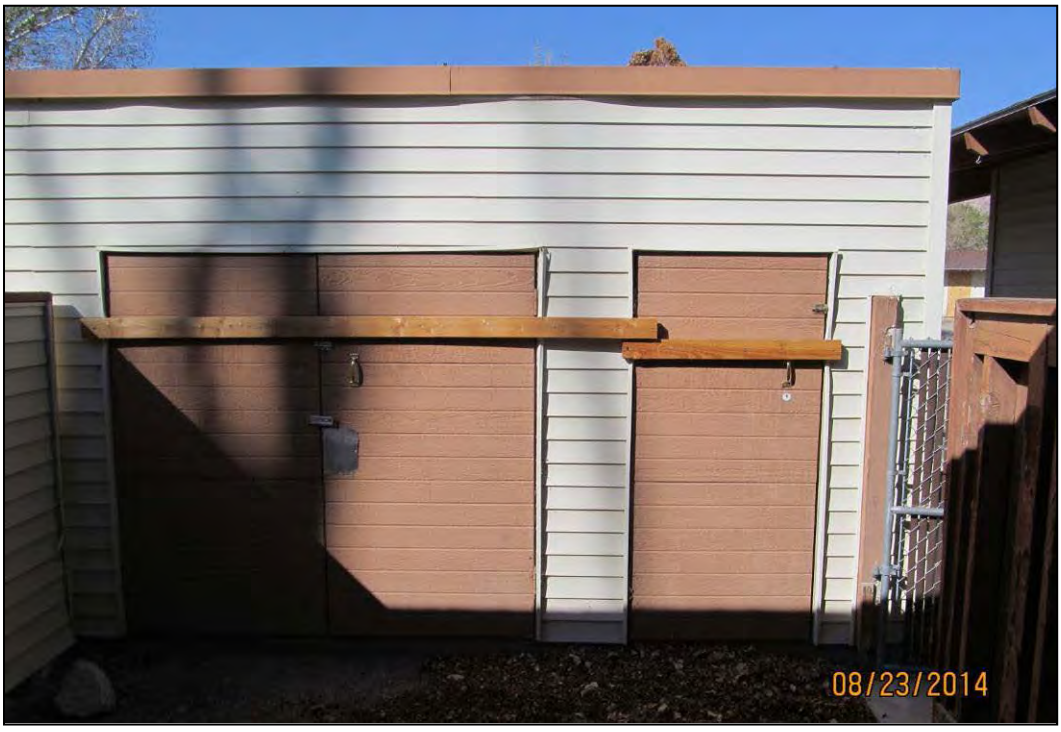

Figure 22: Interior of the courtyard showing the storage building. (Note: date stamp on photo is incorrect.) IMG_0016.jpg

Duplex Interior

Each duplex unit is approximately 1,434 square feet. The units share a central wall between the two kitchens. The units are mirror images of each other. The description given here will be for the Unit B, or the unit on the left side of the duplex when facing the front door.

The front door opens into a small entry area lighted by a large fixed window with translucent glass. The window is almost as big as the door. On turning left from the entry area, the visitor enters the living room. A sliding glass door leads from the living room to the back yard. The kitchen is accessed from the living room. The kitchen floor is covered with 9" x 9" gray linoleum tiles, as is the floor throughout the entire house. A door at the back of the kitchen leads to the outside courtyard.

A hallway from the living room leads to the bedrooms, a linen closet, and a full bathroom. Each bedroom has a small closet and one window. The master bedroom has a bathroom. The original sinks, toilets, and bathtubs/showers have been replaced. The aluminum medicine cabinets and an aluminum cup and toothbrush holders may be original to the duplexes.

All of the interior doors are wood hollow core, single leaf doors. The knobs and hinges appear original.

Figure 23: Front entry area. The door on the right is the front entrance. The door on the left leads to a coat closet.

Photo by S. Simpson, 8/24/2014 (Note: date stamp on photo is incorrect.) IMG_0040.jpg

Figure 24: Original molded glass ceiling fixture in entry way. Photo by S. Simpson, 8/24/2014IMG_0041.jpg.

Figure 25: The kitchen, with original wood cabinetry, is accessed from the living room (seen in the background). Photo by S. Simpson, 8/24/2014 (Note: date stamp on photo is incorrect.) IMG_0025.jpg

Figure 126: A mid-century paper towel holder is still in place above the sink.

Figure 137: Window in the living room. The upper and lower lites were fixed. The center lites are sliders. The wood baseboard molding appears original throughout the house. Photo by S. Simpson, 8/24/2014 (Note: date stamp on photo is incorrect.) IMG_0028.jpg

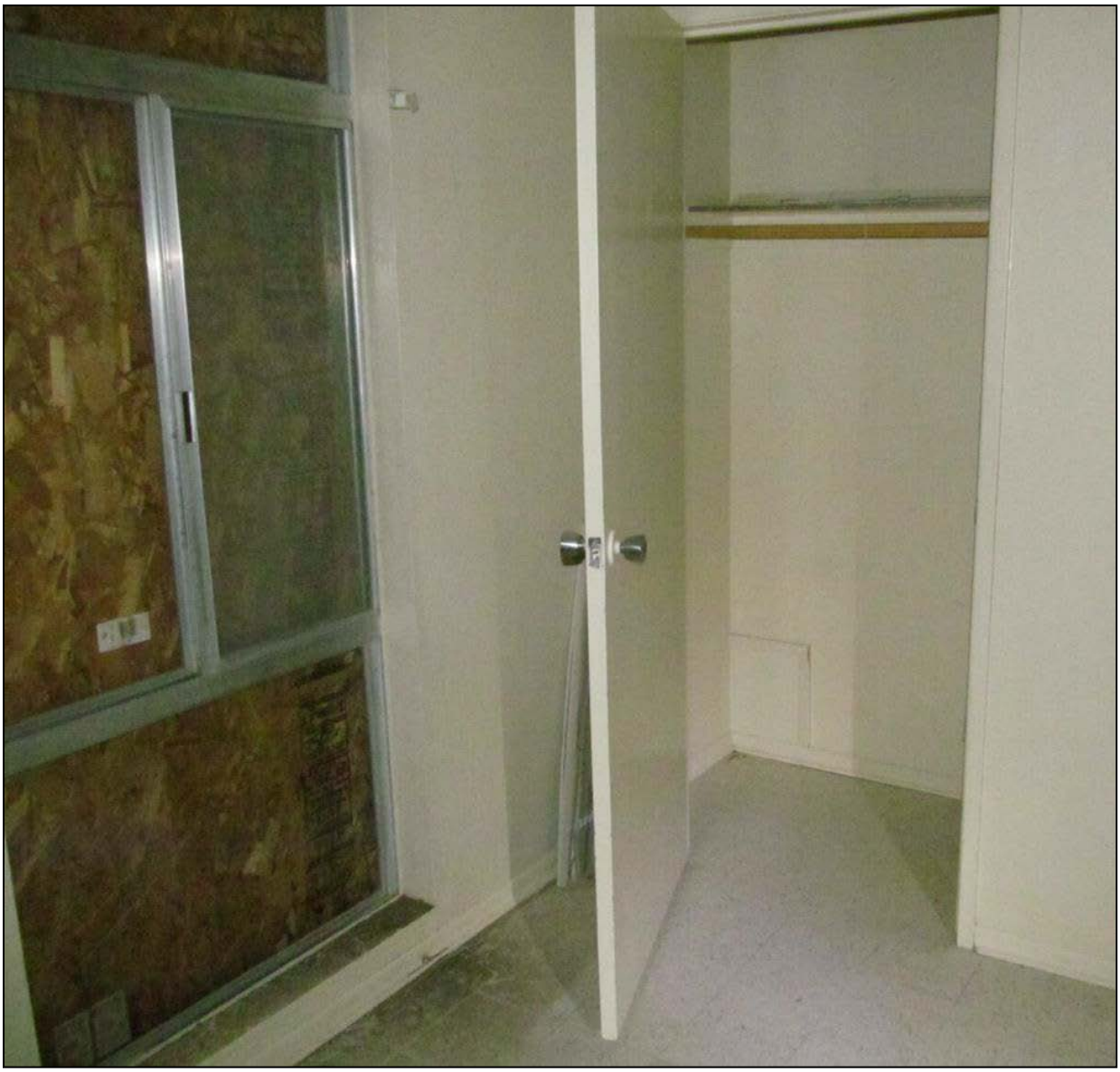

Figure 148: Bedroom closet. Photo by S. Simpson, 8/24/2014. IMG_0032.jpg

Figure 159: Hallway leading to bedrooms and bathroom. Photo by S. Simpson, 8/24/2014 (Note: date stamp on photo is incorrect.) IMG_0029.jpg

Figure 30: Linen closet in hallway. The aluminum edging is original. Photo by S. Simpson, 8/24/2014 (Note: date stamp on photo is incorrect.) IMG_0031.jpg

Figure 31: Vent for the evaporative cooler. Photo by S. Simpson, 8/24/2014. IMG_0026.jpg.

Figure 32: An original or early interior bathroom light has been repurposed as an exterior light. Photo by S. Simpson, 8/24/2014.

Figure 33: The aluminum medicine cabinet and wall mounted toothbrush holder may be original to the house. Photo by S. Simpson, 8/24/2014 (Note: date stamp on photo is incorrect.) IMG_0034.jpg.

Landscaping

The Conelly Duplex Units have been vacant since December 31, 2013. The landscaping has not been maintained, and many houses have evidence of flowerbeds that have since died and returned to desert. A struggling rosebush can be spotted occasionally. More common are well established juniper bushes, pines, and cottonwoods--probably planted shortly after the duplexes were built. Some large cottonwood trees may predate the Conelly Duplex Unit. Quartz gravel and cobbles are a common decoration in gardens. These materials have been used to outline flowerbeds, pathways, and as focal points in the yard.

There are three half-basketball courts located in the Conelly Duplex Units. They consist of a poured concrete pad surrounded by gravel and a metal frame supporting a basketball hoop and metal backboard. The following initials and date are inscribed along the edge of one of the concrete pads: "RMCB 2 12-7 / 7 JUNE '72". RMCB stands for "Reserve Mobile Construction Battalion." The basketball courts were part of the original housing development plan and it is believed the construction battalion poured the concrete slab in 1972 to replace an earlier basketball court at the same location.

Figure 34: The historic landscaping was characterized by green lawns, juniper bushes and cottonwood trees. Photographer and date unknown, post-1975 based on the presence of the carport. (HWAD files, Conelly Duplex Units.)

Figure 35: Photographer and date unknown, post-1990s based on the vinyl siding. (HWAD Files, Conelly Duplex Units.)

Figure 36: Despite no irrigation, some of the original pines and cottonwood trees survive. Photo by S. Simpson 8/24/2014. IIMG_0050.jpg

Figure 37: The lawns have been unwatered since December 2013 and have quickly returned to desert. Three dead juniper hint at what the landscape once looked like. Photo by S. Simpson, 8/24/2014. IMG_0115.jpg.

Figure 38: Half-basketball court dating to 1972. Photo by S. Simpson, 8/24/2014. IMG_0058.jpg.

Figure 39: Basketball hoop. Photo by S. Simpson, 8/24/2014 (Note: date stamp on photo is incorrect.) IMG_0062.jpg.

Figure 40: Inscription on basketball court concrete reading "RMCB 2 12-7 / 8 JUNE '72". Photo by S. Simpson, 8/24/2014. IMG_0061.jpg

Resource Integrity

Overall, the Conelly Duplex Units retain a fair level of integrity.

Location: The Conelly Duplex Units are in their original location. The integrity of location is excellent.

Design: The layout of the Conelly Housing Complex retains its original configuration and has good integrity. The design of the individual duplexes have been altered with the replacement of the roof and removal of the projecting rafters and purlins, and by the installation of vinyl siding. The massing remains the same.

Setting: Since the units were vacated at the end of 2013, the landscaping has been neglected. The well-maintained grassy yards and flowerbeds contributed to the suburban setting of the Conelly Units. Other residential areas in HWAD are characterized by lush lawns and mature trees that created an oasis of green in the Nevada desert. For the landscaping around the Conelly Units to be neglected diminishes the integrity of setting. It should be noted that this condition is reversible and was not considered a major detracting factor when evaluating the overall historic integrity of the units.

Workmanship: The Conelly Duplex Units were not known for the high quality of workmanship. They were constructed in the most economical manner possible from readily available material. The construction materials are all mass-produced and machine processed. The character defining quality of mediocre craftsmanship is still evident in the duplexes.

Materials: The original materials on the exterior of the Conelly Duplex Units are mostly obscured. Originally, the units had wood board and batten siding. In the 1990s the batten were removed and the buildings were covered with a layer of rigid foam insulation, and then vinyl siding intended to resemble horizontal lapboard siding. Most of the wood siding is still in place, it is just covered. The materials on the interior of the duplexes retain good integrity. The original drywall, some light fixtures, aluminum framed windows, wood molding, doors and hardware are still present and in good condition.

Feeling and Association: The Conelly Housing Complex is able to convey its association with Vietnam-era military housing because it retains its historic layout with curving streets and pockets of duplexes, and the duplexes retain their original massing. The interior of the duplexes are minimally changed and have a strong feeling of living conditions of military personnel and their families in the late 1960s.

VI. National Register of Historic Places Evaluation

The HABS inventory of HWAD from 1984 addressed the Conelly Duplex units, saying they "have no specific architectural, historical, or technological significance at this time." Of course, at that time, the units were only 15 years old. Now that the duplex units are nearing 50 years of age, they need to be evaluated for the NRHP against the four criteria established by the National Park Service. For the Conelly Duplex Units to be considered historically significant, the buildings must:

A) be associated with events that have made significant contributions to the broad patterns of our history, and/or

B) be associated with the lives of persons significant in our past, and/or

C) embody distinctive characteristics of a type, period, or method of construction; or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction, and/or

D) have yielded, or be likely to yield, information important in prehistory or history.

Significance Under Criterion A

Unarguably, the Vietnam Conflict was a major event in American history during the 1960s and early 1970s. The addition of a bomb line at the Hawthorne NAD in support of the U.S. military's involvement in Vietnam was a significant contribution. HWAD was, and remains, the largest ammunitions depot in America and nearly all of the munitions for the Vietnam War effort passed through this place.

Do the Conelly Duplexes Units have a specific association with these significant events to make them eligible for the NRHP under Criterion A? Two "test" questions for determining a building's association with historic events were devised by Professor Amos Rapaport of the University of Wisconsin in his evaluation of Capehart and Wherry military housing (U.S. Army Environmental Center 1998). The same questions can be applied to the Conelly Duplex Units and the Vietnam War, namely:

1. Were the Conelly Duplex Units directly involved with Vietnam Conflict activities at Hawthorne NAD? In other words, could the Vietnam Conflict activities at Hawthorne NAD have continued if these buildings and structures had they not existed?; and,

2. Would the Conelly Duplex Units been built were it not for the Vietnam Conflict activities at Hawthorne NAD?

The answer to the first question is affirmative. Newspaper articles describe how strained the housing market was in Hawthorne in the late 1960s. The housing at Babbitt was completely full and the Hawthorne NAD Housing Office was begging Hawthorne residents to rent rooms for incoming ordinance workers. Hawthorne NAD required at least 100 ordinance workers to operate the new bomb line and this simply could not be absorbed by the small community. The need for housing was met by building 25 duplexes in the Conelly Housing Complex and 25 identical duplexes in the Schweer Drive Housing Area that was located a little to the west of the Conelly Duplexes. Both housing complexes were built in the same Contemporary style with the same materials. The duplexes in the Schweer Drive Housing Area were demolished by the Army in 2003. Senator Allen Bible said of the Conelly and Schweer duplexes,

"This housing for military men and their families is essential if the Hawthorne facility is to carry out its vital Vietnam support mission properly." (*Mineral County Independent* 11/15/1967:1)

The answer to the second question is also affirmative. The goal of the Conelly Duplexes was to provide housing for the expected influx of ordinance workers and their families. Were it not for the new bomb line and the required ordinance workers, the Conelly Duplexes would not have been built.

SDAY, NOVEMBER 15, 1967 TEN CENTS

NAD Construction Funds Approved in Final Bill

Senator Alan Bible, chairman of the Appropriations Subcommittee on Military Construction, announced Tuesday he had obtained full approval for construction of 100 family housing units at Hawthorne Naval Ammunition Depot.

Bible said $1.8 million for the project was set aside from total family housing funds in the military construction appropriation cleared by his committee last week and passed by the Senate Tuesday.

The family housing addition, Bible said, boosts the NAD Hawthorne construction total to $2.4 million for the current fiscal year. The balance of $598,000 approved individaully in the appropriation bill is for a radiographic facility and refrigerated mine battery storage.

"This housing for military men and their families is esesntial if the Hawthorne facility is to carry out its vital Vietnam support mission properly," The Nevada senator said. The project will also give a badly needed boost to Northern Nevada home construction activity, he noted.

Bible announced earlier the appropriation bill also carried $4.2 million for essential construction at Nellis Air Force Base, Las Vegas, which is also directly involved in Vietnam operational support.

However, the appropiation total cleared by the Bible subcommittee was $837.6 million below the budget request and $43 million under the House approved total.

HOUSING NEEDED

There is an urgent need for houses for NAD Hawthorne workers. In order for the commanding officer to add another bomb line, additional ordnance workers must be hired; however, all Babbitt houses are filled, with only occasional vacancies.

Hawthorne residents having houses, apartments or rooms available for rent or sale are asked to either contact the housing manager in Babbitt or place on ad in the newspaper. House "for rent" and "for sale" listings will be placed on the Housing Office bulletin board.

"It would be a boost to the economy of the area to be able to hire additional ordnance workers and the assistance of the community is earnestly solicited," the depot announcement stated.

Figure 41: Mineral County Independent. November 15, 1967, page 1.

Significance Under Criterion B

The Conelly Duplex Units were planned and designed by staff members of the U.S. Navy Bureau of Yards & Docks. No research has indicated that anyone notable in planning or architecture was associated with designing the Conelly Units. The Duplex units were named in honor of Allen E. Conelly (1915-1990), a native of Hawthorne, a civilian worker at the Hawthorne Naval Ammunition Depot for 34 years, and a

Mineral County Commissioner (*NSJ*, 7/14/1972). There is no archival evidence to suggest that Mr. Conelly had any specific association other than to be his namesake. There is no evidence that he was responsible for either funding or involved in the planning or design of the Duplexes. The Duplex Units are not a good representation of Mr. Conelly's contributions to history.

Historical research did not indicate a connection between a historically significant person/people either inhabiting the Conelly Duplex Units, or carrying out any historically exceptional acts in the Conelly Duplex Units. Therefore, the Conelly Duplex Units are not recommended as eligible under Criterion B.

Significance Under Criterion C

For a resource to be eligible under Criterion C, it must meet at least one of four requirements:

1) represent the work of a master;
2) possess high artistic value;
3) embody distinctive characteristics of a type, period or method of construction; and/or
4) represent a significant distinguishable entity whose components may lack individual distinction.

The Conelly Duplex Units do not represent the work of a master, nor do they have high artistic value. The materials used and craftsmanship displayed are fair at best. The design and style of the duplexes are conventional.

National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation, defines the term "distinctive characteristics" as the "physical features or traits that commonly recur in individual types, periods, or methods of construction. A property must clearly contain enough of those characteristics to be considered a true representative of a particular type, period or method of construction."

The stick built construction method, Contemporary architectural style, and mass-produced materials used in the Conelly Duplex Units are indistinguishable from civilian and military housing constructed in the 1960s and 1970s. The Conelly Duplex Units are not physically distinctive, and therefore, not recommended as eligible under Criterion C. Additionally, the alteration of character defining exterior features, such as the board and batten walls and roofline with projecting rafters, leaves the units with only a fair level of integrity.

Significance Under Criterion D

The construction methods and materials of the Conelly Duplex Units are well understood. Further intensive investigation of the property is unlikely to yield information important to history and therefore the Conelly Duplex Units are not recommended as eligible under Criterion D.

Conclusion

The Conelly Housing Complex is eligible for the NRHP for its contribution to the proposed Hawthorne NAD National Register Historic District under Criterion A. The Conelly Duplex Units have a statewide level of significance with a period of significance beginning in 1969, when they were constructed; and ending in 1973, when the United States Congress ended military involvement in Vietnam as a result of the Case-Church Amendment. The construction of the Conelly Duplex Units was a direct response to the planned addition of a bomb line at the Hawthorne Naval Ammunition Depot. The bomb line was vital to NADs support mission for the Vietnam Conflict.

The duplex buildings are not individually eligible for the NRHP because they only retain a fair level of integrity and, as individual buildings, cannot convey their association with the development of military housing in support of the Vietnam Conflict.

The Conelly Housing Complex, consisting of 25 duplexes and associated structures and landscaping, is not recommended as a separate eligible historic district from the proposed Hawthorne NAD Historic District. The surrounding depot is essential for the context of the housing, both physically and historically. To make it a “stand-alone” historic district ignores the historic role it played within the larger Hawthorne Naval Ammunition Depot.

VII. Adverse Effect & Mitigation

The demolition of the Conelly Housing Complex is needed to relieve the United States Army of property that is excess to the needs and requirements of HWAD. Demolition of the Conelly Housing Units meets the criteria for an adverse effect as defined by 36 CFR 800.5(i): "Physical destruction of or damage to all or part of the property." In consultation with the SHPO, the following recommendations for mitigation were developed:

- watering and maintaining some of the mature and healthy trees;
- finding and assembling historic photographs of the duplexes;
- conducting oral history interviews with former residents of the Conelly Duplex Units and/or or HWAD personnel who are familiar with the duplexes;
- preparing a public education component, such as a display exhibit, booklet, web page, or other medium to make the photographs and information gathered from the oral history interviews available to the public;
- completing ARA forms for the 25 Duplex buildings and submitting them to SHPO for inclusion in the NVCRIS. The information for the ARA forms has already been gathered with the architectural field forms included in Appendix A of this report. The information needs to be migrated from the field forms to the ARA form to meet NCVRIS requirements; and
- recordation of the remaining historic landscape features and recommendations for the treatment of the historic landscape.

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APPENDIX A: Field Forms