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Submission of Mitigation Documentation Related to the Demolition of Building 23-113, Mercury, Area 23, Nevada National Security Site, Nye County, Nevada

Mitigation Documentation

ARA forms B15236 (update and original)

High-quality digital images of Building 23-113 with index and photo key plan

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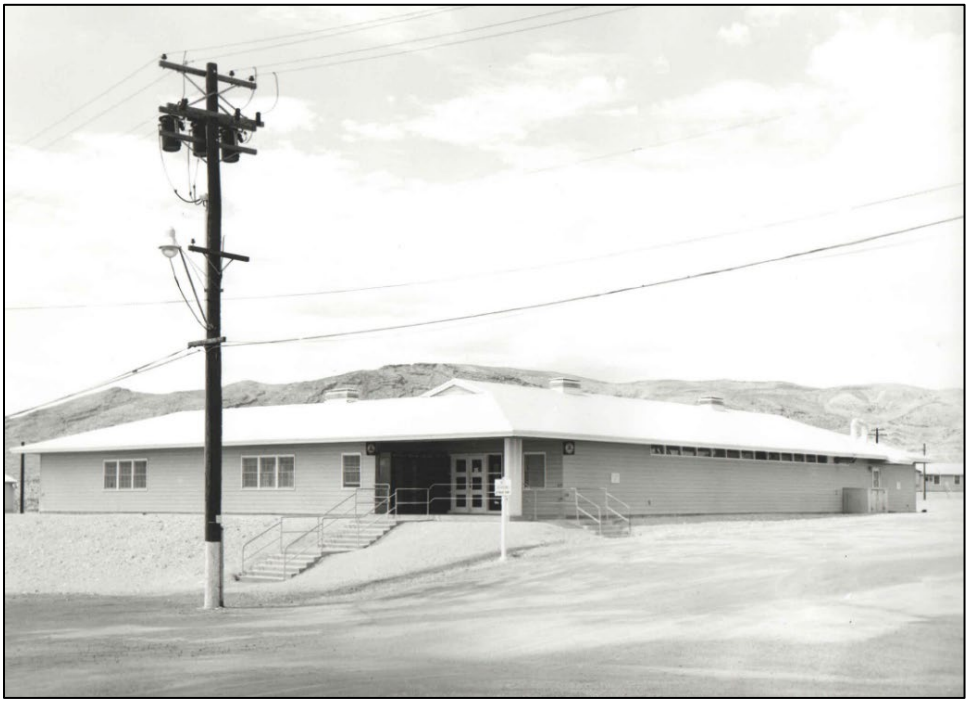
DESERT RESEARCH INSTITUTE
CULTURAL RESOURCES REPORT SR010322-1
PROJECT NO. 223723

EVALUATION OF BUILDING 23-113, MERCURY, AREA 23, NEVADA NATIONAL SECURITY SITE, NYE COUNTY, NEVADA



Prepared by

Tatianna Menocal
Division of Earth and Ecosystem Sciences
Desert Research Institute, Las Vegas, Nevada

April 2022

Nevada System of Higher Education

Cover Photograph: Building 23-113, facing north (REECo 1955).

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EVALUATION OF BUILDING 23-113, MERCURY, AREA 23, NEVADA NATIONAL SECURITY SITE, NYE COUNTY, NEVADA

Prepared by

Tatianna Menocal
Division of Earth and Ecosystem Sciences
Desert Research Institute, Las Vegas, Nevada

Reviewed by

Laura O'Neill
Division of Earth and Ecosystem Sciences
Desert Research Institute, Las Vegas, Nevada

Prepared for

U.S. Department of Energy
National Nuclear Security Administration
Nevada Field Office, Las Vegas, Nevada

Submitted by

Maureen King, Project Director
Division of Earth and Ecosystem Sciences
Desert Research Institute, Las Vegas, Nevada

April 2022

The work upon which this report is based was supported by the U.S. Department of Energy, National Nuclear Security Administration Nevada Field Office under Contract #DE-NA0003590.

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EXECUTIVE SUMMARY

The U.S. Department of Energy (DOE) National Nuclear Security Administration Nevada Field Office (NNSA/NFO) plans to demolish Building 23-113 in Mercury (Nevada State Historic Preservation Office [SHPO] Resource No. B15236), which is on the Nevada National Security Site (NNSS) in Nye County, Nevada. Demolition of Building 23-113 is part of the long-term project to modernize the town of Mercury on the NNSS for future mission needs. The project is considered an undertaking subject to review under Title 54 of United States Code (USC) § 306108, commonly known as Section 106 of the National Historic Preservation Act, Title 54 USC § 300101, et seq., and its implementing regulations, Title 36 of the Code of Federal Regulations (36 CFR) Part 800.

In 2018, Desert Research Institute (DRI) completed an architectural survey of the town of Mercury. This effort resulted in the identification, recordation, and evaluation of the Mercury Historic District (MHD, SHPO Resource No. D230), including the identification of its contributing elements (Reno et al. 2018). The MHD was recommended eligible for listing in the National Register of Historic Places (NRHP, National Register) under the Secretary of the Interior's (SOI) Significance Criteria A and C, as defined in 36 CFR Part 60.4, as a significant concentration of buildings and structures with a direct and important association with Cold War-era nuclear testing from 1951 through 1992. It has not been evaluated under Criteria B and D to date.

As part of a larger modernization program for Mercury, the NNSA/NFO and the SHPO executed the 2018 *Programmatic Agreement between the National Nuclear Security Administration Nevada Field Office and the Nevada State Historic Preservation Officer regarding Modernization and Operational Maintenance of the Nevada National Security Site, at Mercury in Nye County, Nevada* (the Mercury PA). The Mercury PA includes streamlined Section 106 procedures for undertakings in the MHD based on contributing element categories. Building 23-113 is identified in Appendix C of the Mercury PA as a Category I contributing element, indicating that it might be individually eligible for the NRHP. It is a historic property for the purposes of Section 106 compliance and subject to the stipulations of the Mercury PA.

Per Stipulation VI of the Mercury PA, when the Area of Potential Effect (APE) for an undertaking includes Category I elements, the NNSA/NFO must evaluate the Category I elements for individual NRHP eligibility under all of the SOI Significance Criteria prior to initiating any activity that may affect the elements. Therefore, the purpose of this report is to evaluate Building 23-113 as a potential individually eligible historic property in fulfillment of Stipulation VI of the Mercury PA. The evaluation detailed herein concludes that although Building 23-113 is significant at the local level for its important role as a recreational facility on the NNSS, the building lacks sufficient integrity to convey its significance. It is not individually eligible for listing in the NRHP at any level. The building remains eligible as a contributing element to the MHD.

ACKNOWLEDGEMENTS

All work for this project was performed by Desert Research Institute (DRI) staff unless otherwise noted. Tatianna Menocal, who meets the Secretary of the Interior's Professional Qualification Standards for Archaeology, and Laura O'Neill, who meets the Secretary of the Interior's Professional Qualifications Standards for Architectural History and Historic Architecture, prepared this report. Nicole Brannan, Architectural Historian, and Jeffrey Wedding, Archaeologist, assisted with fieldwork and photography. Martha DeMarre, Archivist, contributed to the historical research. Megan Stueve, Archaeologist, assisted with report preparation. The historic context sections include revised versions of earlier work by Ron Reno, Architectural Historian and Archaeologist, and Maureen King, Archaeologist. Ms. King was also responsible for project administration and quality control for this report.

Carrie Stewart, National Environmental Policy Act Compliance Officer for the NNSA/NFO served as the program manager overseeing this project. Alissa Silvas of Mission Support and Test Services, Inc. (MSTS) arranged for access to the subject building to complete fieldwork and photography.

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I. INTRODUCTION

The U.S. Department of Energy (DOE) National Nuclear Security Administration Nevada Field Office (NNSA/NFO) proposes to demolish Building 23-113 in Nye County, Nevada, for the purpose of modernizing Mercury for future mission needs (see Figures 1 and Figure 2 for project location). Building 23-113 is a Category I contributing element to the Mercury Historic District (MHD), as defined in the *Programmatic Agreement between the National Nuclear Security Administration Nevada Field Office and the Nevada State Historic Preservation Officer regarding Modernization and Operational Maintenance of the Nevada National Security Site, at Mercury in Nye County, Nevada* (hereafter referred to as the Mercury PA) and Appendix C of the Mercury PA. Accordingly, Building 23-113 is considered a historic property for the purposes of Section 106 of the National Historic Preservation Act and its implementing regulations (36 CFR Part 800) and subject to the stipulations of the Mercury PA.

When an undertaking has the potential to affect Category I elements, Stipulation VI of the Mercury PA requires that Category I elements be evaluated individually for National Register of Historic Places (NRHP) eligibility prior to initiating any work that might affect those elements. The purpose of this report is to evaluate Building 23-113 for potential individual NRHP eligibility in fulfillment of Stipulation VI.

Figure 1. Project location in Mercury (NNSA/NFO 2017).

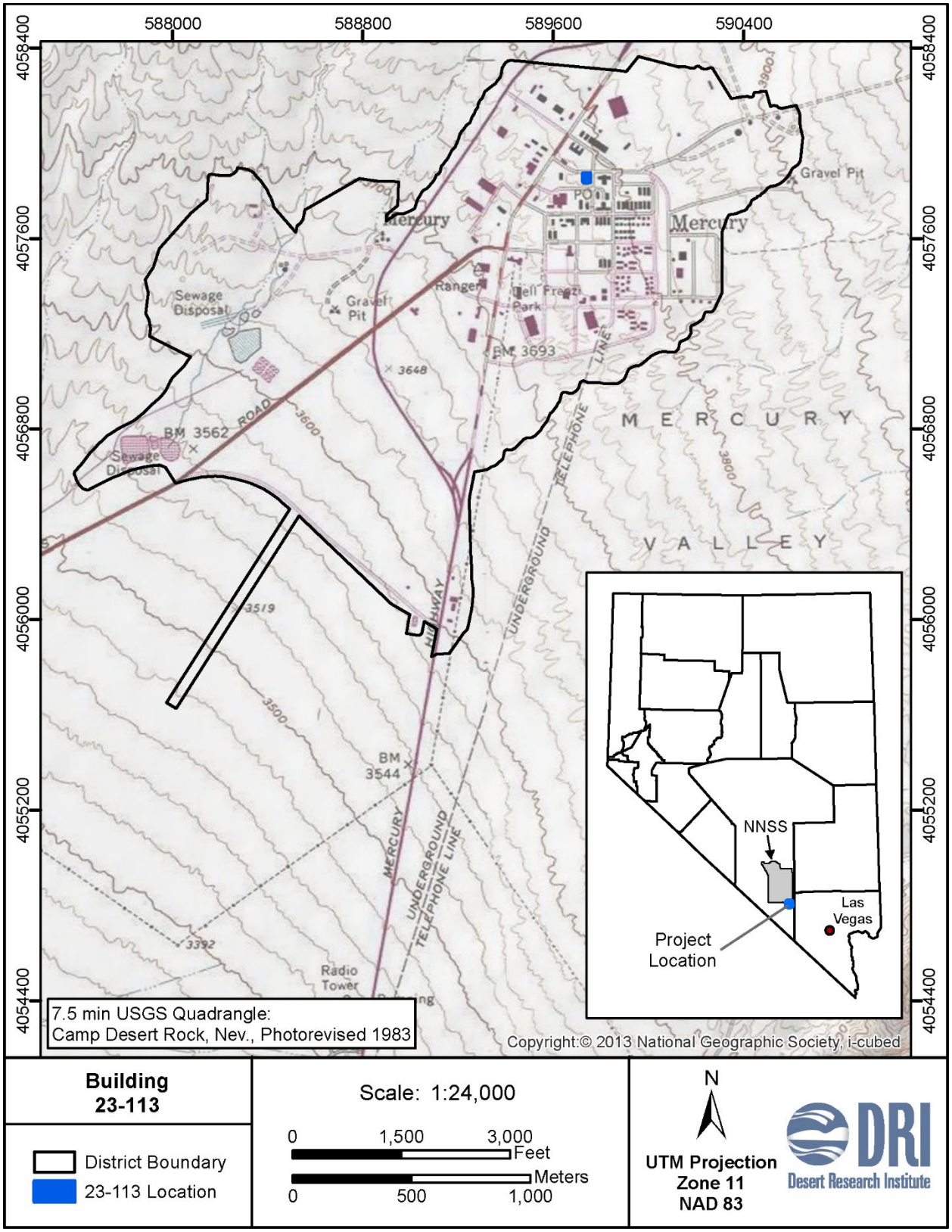

Figure 2. Project location map.

II. RESEARCH DESIGN

Objectives

The purpose of this architectural resource evaluation is to comply with requirements of Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, for the NNSA/NFO to manage historic properties under its jurisdiction. In particular, it complies with the Mercury PA.

Area of Potential Effect

The NNSA/NFO has delineated the Area of Potential Effect (APE) for the undertaking in accordance with Stipulation II of the Mercury PA. For direct effects, the APE includes the footprint of Building 23-113 plus a buffer of 25 feet from the perimeter of the footprint in accordance with Stipulation II.A.1 (see Figure 3). For indirect effects—such as visual, atmospheric, and audible effects—it coincides with the boundary of the MHD per Stipulation II.B (see Figure 2). For cumulative effects and new construction (Stipulations II.C and II.D), the APE boundary is the same as for indirect effects.

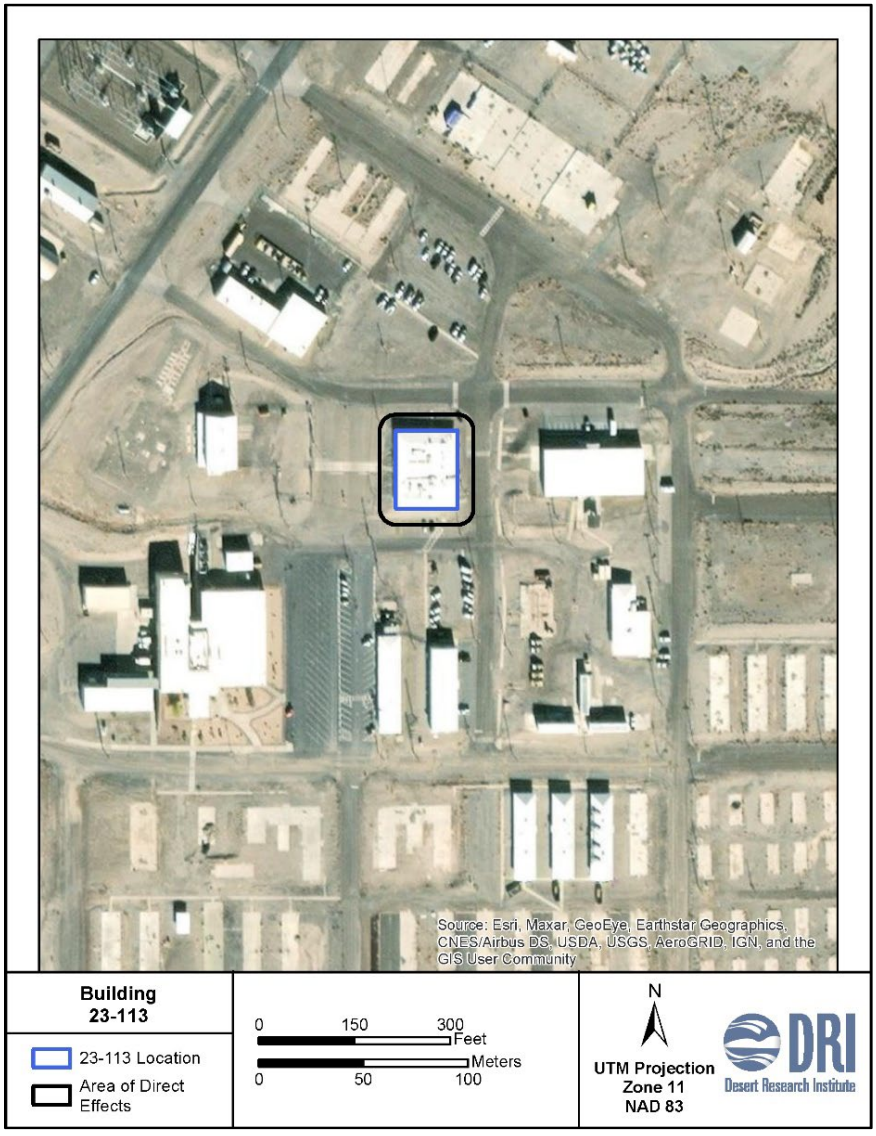

Figure 3. Direct effects area for the undertaking.

Element Category Identification

Building 23-113 is identified in the Mercury PA Appendix C as a Category I element. Per Stipulation IV.B.1, Category I elements may include those that are unique to the MHD or that have only one representative in the MHD, and therefore might be individually eligible for listing in the NRHP.

Methods

Research, fieldwork, updates to previously submitted documents, and this report were designed to meet the requirements of Mercury PA Stipulation VI for evaluating the Category I element within the project APE.

Buildings and major structures are identified on the NNSS by numbers or letters with their area number in the prefix. For example, Building 23-113 is identified as such because it is located in Area 23. The prefix is followed by a unique identifying number or combination of letters and numbers ("113" in the example). NNSS identifiers are used throughout this report because they are tied to the existing archival documentation and source materials for the NNSS extending back through the entire Cold War period.

Building 23-113 was originally surveyed and recorded on a Nevada Architectural Resource Assessment (ARA) form (Nevada State Historic Preservation Office [SHPO] Resource No. B15236) as part of *The Architecture of Mercury – Nevada's Atomic Boom Town, An Architectural Survey of Mercury, Area 23, Nevada National Security Site, Nye County, Nevada* (Reno et al. 2018). The ARA form evaluated Building 23-113 as a potential contributing element to the MHD, not as a potential individual historic property. Therefore, research at the time was restricted to what was necessary to determine whether the building contributed to the historic district. Additional research conducted for this report to properly evaluate Building 23-113 as a potential individual historic property included reviewing engineering records, historical maps, and photographs; searching newspaper archives; revisiting DOE documents related to the history and development of the NNSS; and reviewing scholarly books and articles about the NNSS and related contexts and themes. Dates of original construction and alterations recorded on the original ARA form were confirmed and updated based on primary sources, including architectural and engineering drawings, newspaper articles, DOE documents, and dated photographs.

Tatianna Menocal, Laura O'Neill, Jeffrey Wedding, and Nicole Brannan conducted fieldwork on February 28, 2022, to update the previous description of Building 23-113 (including the exterior and interior).

Following the research and fieldwork tasks, appropriate historic contexts were compiled to facilitate a detailed NRHP evaluation of Building 23-113 as a potential individual historic property. The property was evaluated within the identified historic contexts using the Secretary of the Interior's (SOI) Significance Criteria. The physical integrity of the property was also analyzed in terms of the seven aspects defined in 36 CFR Part 60.4. *National Register Bulletin #15: How to Apply the National Register Criteria for Evaluation* (NPS 1997) was referenced to complete the significance evaluation and integrity analysis.

The results of the additional research and NRHP evaluation of Building 23-113 completed for the current undertaking are summarized in this document. The ARA update form is submitted separately to the SHPO in the mitigation document package.

III. HISTORIC CONTEXT

The following section presents contexts and themes related to Building 23-113 for the purpose of evaluating the property for individual NRHP eligibility. The main context identified as relevant to the evaluation and necessary for understanding the extant property is Nuclear Testing on the NNSS. Recreation on the NNSS was identified as the most relevant theme. Information on the engineering and contracting firms responsible for Building 23-113 follows the recreation theme narrative. Broader contexts and themes related to the MHD and nuclear testing during the Cold War period are detailed in *Architecture of Mercury* (Reno et al. 2018) and the *Draft Cultural Resource Management Plan for the Nevada National Security Site, Nye County, Nevada* (Rhode et al. 2020), respectively, and are not discussed at length herein.

Natural Setting

Building 23-113 is near the center of the town of Mercury on Snapper Street between Tumbler and Crossroad Avenues. Mercury is located on a southwest-facing bajada below the Spotted Range in the northeast corner of Mercury Valley. The center of Mercury is at an elevation of approximately 3,700 feet. Red Mountain towers over Mercury to the north and the valley is bounded by the Specter Range to the southwest. The Spring Mountains lie to the south. To the northeast is Mercury Ridge, which separates Mercury from Frenchman Flat farther to the northeast.

Nuclear Testing on the NNSS

The text for this section was compiled using existing historic contexts presented in *Architecture of Mercury* (Reno et al. 2018) and *Draft Cultural Resource Management Plan* (Rhode et al. 2020). Relevant text from each document was excerpted, compiled, and adapted to suit the purposes of this report with references to Building 23-113 added as appropriate.

The continental nuclear test site, now known as the NNSS, has gone through several name changes over time, from South Site, Alternate Test Site B, Site Mercury, and Nevada Test Site (NTS) in 1950 to 1951 to Nevada Proving Ground in 1952 and back to NTS in January 1955. Its name remained NTS for the rest of the Cold War. The facility was renamed for the last time in 2010 and is currently managed as the NNSS.

Nuclear testing has been a major and important part of the history of Nevada and the United States (Tlachac 1991a, 1991b). Much of this activity revolved around the NNSS, where most of the developments and experiments in nuclear weapons were tested both above- and belowground. The consequences of these activities have been felt worldwide, played a vital role in the national defense of our country, and helped shape world politics.

In the late 1940s, prior to establishing the NNSS, both low- and high-yield nuclear tests were conducted at the Pacific Proving Grounds in the vicinity of the Marshall Islands. Transporting personnel and equipment back and forth between the test area and the scientific laboratories was expensive and time-consuming. The Armed Forces Special Weapons Project conducted a top-secret feasibility study named Project Nutmeg to find a suitable nuclear test site in the continental United States (Fehner and Gosling 2006:36). The Korean War, which began in 1950, escalated security concerns at the Pacific Proving Grounds providing further motivation for the continental search (DTRA 2002:77; Friesen 1995:4).

The ideal continental test site would have favorable and predictable weather and terrain conditions for year-round testing, the land would be under federal control, and it would have an infrastructure already in place (Lay 1950; Tlachac 1991a). Other important factors included security, remoteness from populated areas, and relative proximity to the scientific laboratories in New Mexico. The Las Vegas Bombing and

Gunnery Range in southern Nevada was selected as the place that best met these criteria (Fehner and Gosling 2006:43). The range also had large, flat terrain to conduct tests, westerly prevailing winds away from the densely populated West Coast, and natural topographic barriers to screen the test areas from public viewing. Based on the recommendations of the Los Alamos National Laboratory (LANL), the Atomic Energy Commission (AEC), and the National Security Council, President Truman approved the new test site location on December 18, 1950.

McKee Construction Company and Reynolds Electrical & Engineering Company (REECo) were hired to begin preparing for the first tests, focusing most of their work on the ground zero area in Frenchman Flat (Campbell et al. 1983:174; Fehner and Gosling 2000:51, 64). Both companies worked as construction contractors at the LANL in New Mexico and were familiar with the proposed tasks. The Ranger nuclear test series in Frenchman Flat began on January 27, 1951, with the Able test and ended with the Fox test on February 6, 1951 (Fehner and Gosling 2000:70, 75; NNSA/NFO 2015; Ogle 1985:43-44; Titus 1986:58). As a safety measure, the primary testing area was moved north from Frenchman Flat to Yucca Flat for the next series of tests in the fall of 1951.

The town of Mercury quickly became the administrative and residential hub of the NNSS in the 1950s. Initially named Base Camp Mercury, it was planned to provide minimum facilities for two or three test series a year, with a six-week time frame for each series. Holmes & Narver (H&N) and Silas Mason Company, two prominent government contractors during the Cold War, shared in the design of Mercury, which initially included barracks, a mess hall, and administrative buildings. The camp was designed to accommodate 412 persons at peak periods of use for only 18 weeks a year. By late 1951, these expectations were already obsolete because the camp overflowed with 1,100 residents (Fehner and Gosling 2000:81).

In response, a $6.7 million construction project was approved to meet the needs of the growing testing program and population in Mercury (NNSA/NFO 2013a). The AEC expanded the base camp, adding more barracks, a second mess hall, a recreational facility (Building 23-113) (see Figure 4), a warehouse, offices, and laboratory space (Fehner and Gosling 2000). Over the next several years, testing-related activities steadily increased, and testing occurred on a year-round basis. This required additional construction to accommodate personnel and support facilities. On March 1, 1952, the Post Office was established with the official designation of Mercury, Nye County, Nevada (Gamett and Paher 1983:92). Other buildings and structures on the NNSS were added in the forward areas and were often arranged in compounds built for specific purposes, such as those constructed for the Nuclear Rocket Development Station (NRDS) in Area 25.

Also in 1958, both the United States and the former Soviet Union ceased nuclear testing by self-imposed moratoria at the urging of internal and external forces (Ogle 1985:30-31). By 1961, however, both superpowers were once again conducting tests. In 1963, the United States, Soviet Union, and Great Britain ratified the Limited Test Ban Treaty, sending all weapons-related tests underground and prohibiting tests in the air, at the surface, and underwater (Friesen 1995:6).

Although atmospheric testing ended, underground testing activities at the NNSS steadily expanded, and testing occurred on a year-round basis in the 1960s. In addition, the Plowshare Program and the NRDS brought increased activity to the site (Fehner and Gosling 2000:83; NNSA/NFO 2013a). This required additional construction to meet demands for a wide range of new facilities.

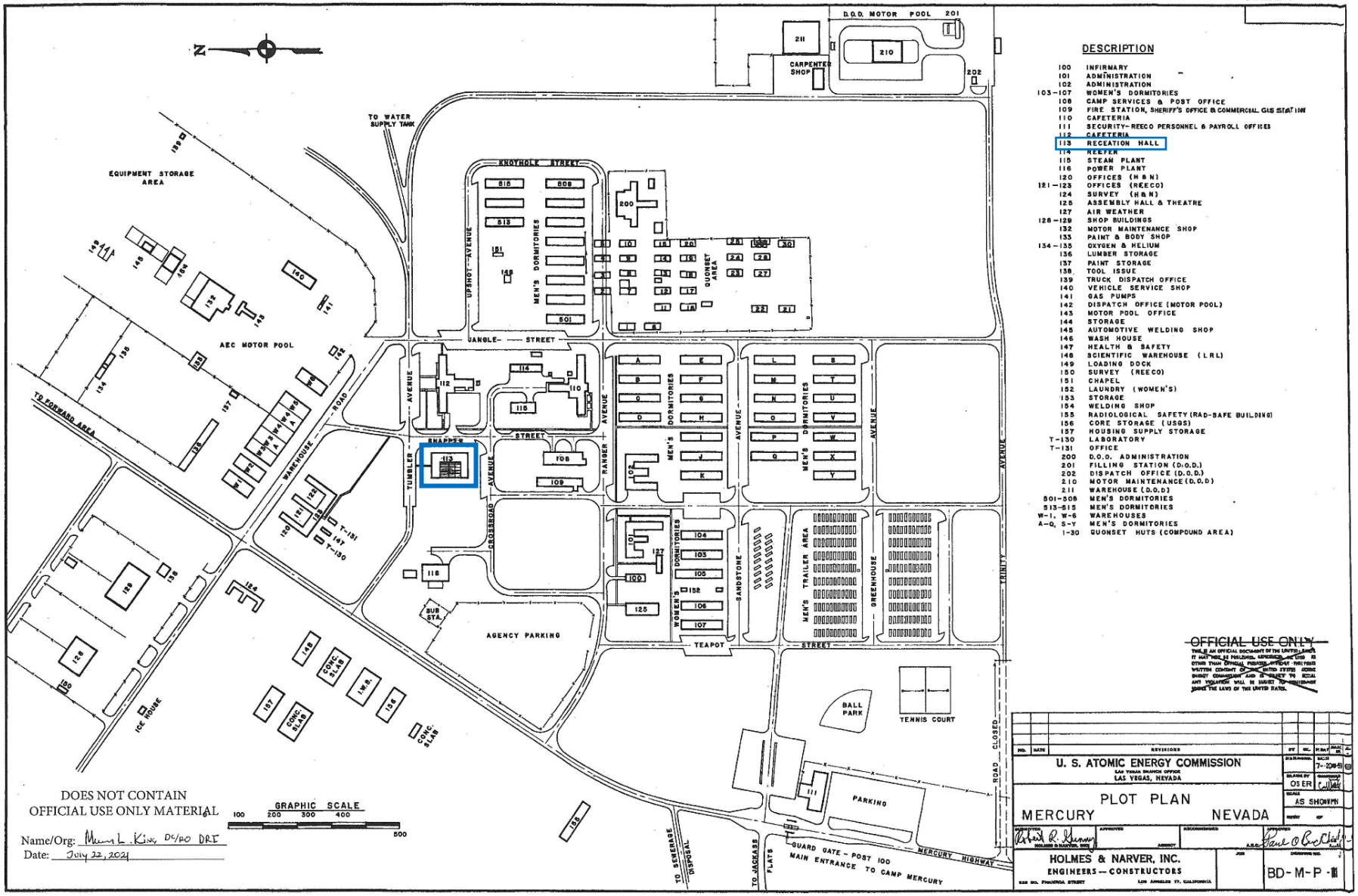

Figure 4. Plot plan for Mercury, Nevada (Holmes & Narver 1958:7). The Recreation Hall (23-113) is outlined in blue.

In 1962, an AEC supplemental appropriations bill provided funds to add to or replace most of the earlier temporary buildings at the site and included a $15 million request for permanent NNSS construction (NNSA/NFO 2013a). By June, the AEC contracted Arthur Benedict Associates of Los Angeles, California, to develop a long-range comprehensive master plan for the coordinated development of Mercury.

The Mercury Master Plan (ABA 1962) proposed an expansion of all facilities to create a permanent site. Facilities programmed for construction during fiscal years 1963 and 1964 were support facilities (the cafeteria and food handling areas, administrative buildings, laboratories, maintenance shops, warehouses, communications, and the Civil Effects Test Organization building), resident-oriented facilities (the dormitories, swimming pool, bowling alley, chapel, and health, medical, and safety building), circulation (the Camp Desert Rock airstrip, US 95 improvements, the Mercury Bypass, and primary and secondary streets), and utilities (a new power transmission line and sewage treatment plant).

Underground testing on the NNSS continued at a steady pace until 1992, when the United States established a second self-imposed moratorium on nuclear testing. In the 1970s and 1980s, buildings and structures were added throughout the site to meet mission demands and improvements in technology. However, many of the earlier buildings, including Building 23-113 remained in use until 1992 and beyond (see Figure 5 for an aerial view of Mercury toward the end of its period of significance). Perhaps the most notable example is the CP-1 Building, which was used continuously as the control point for all tests from when it was constructed in 1952 until the end of nuclear testing on the NNSS.

Figure 5. Mercury near the end of its period of significance (National Archives 1991). Building 23-113 is outlined in blue.

After 1992, the DOE began conducting subcritical experiments to maintain the safety and reliability of the national nuclear stockpile without conducting full-scale tests. Main activities on the NNSS through the present day include subcritical experiments and other Stockpile Stewardship programs, along with planning, experimentation, and training to prevent and counter global and homeland security threats.

Recreation on the NNSS

The initial design of Mercury did not include recreational spaces because the town was not supposed to be occupied year-round. As the testing program grew, so did the population of Mercury and the first recreational spaces were created as part of the AEC's construction development project in late 1951. The two earliest recreational facilities in Mercury were the Recreation Hall (Building 23-113) and a movie theater (Building 23-125) (NNSA/NFO 2013a). The Recreation Hall was a wood-frame building, whereas the movie theater was located in a Quonset hut. The Recreation Hall originally had a lounge, a game room, a refreshment area with a snack bar and soda foundation, and a courtyard area. The Recreation Hall provided personnel with a library and a game room with billiards and table tennis tables (Figures 6 and 7), as well as spaces for them to participate in bridge tournaments or square-dancing classes (NNSA/NFO 2013a).

By 1958, additional recreational spaces were created, and Dell Frenzi Park was constructed in the southern portion of Mercury. The park had a tennis court, a baseball field, a picnic area, and an archery range. The western portion of the park had an area covered with grass that was used for volleyball and badminton until an administrative building to the west of the park was expanded.

Figure 6. The lounge in the Recreation Hall, August 1, 1961 (REECo 1048-9).

Figure 7. Table tennis in the Recreation Hall, October 3, 1962 (REECo 1457-3).

Recreational facilities in Mercury continued to expand in the 1960s. The Master Plan developed by Arthur Benedict Associates noted that facilities in Mercury were limited and did not provide for "a wide range of diverting interests" (ABA 1962). Their plan recommended additional outdoor and indoor facilities that would offer more recreational opportunities. Recreational facilities programmed for fiscal year 1963 included an Olympic-sized swimming pool and dressing room, and an adjacent bowling alley, but only the bowling alley was ultimately constructed. The eight-lane bowling alley and full-service snack bar opened on February 1, 1964 (NNSA/NFO 2013a).

The Recreation Hall (Building 23-113) ceased being used for recreation in 1980, but by 1986, the number of recreational facilities in Mercury had reached its peak. Facilities at that time included the Bowling Alley, Pool and Change Building, Rock [Lapidary] Shop, Theater, Gymnasium, Physical Condition Track, Golf Driving Range, and the Softball Field, Picnic Area, Tennis Courts, and Basketball Courts at Dell Frenzi Park. By 1992, the gymnasium had been repurposed into a warehouse and the Recreation Hall was used as an office and training facility (RSN 1992). Of these facilities, the Recreation Hall (Building 23-113) and Physical Condition Track still exist, but only the latter serves a recreational purpose.

On the NNSS, other recreational facilities were constructed at the Area 12 Camp, which was a forward area base camp that supported testing activities on the mesas from 1960 through the end of nuclear testing in 1992. Recreational facilities at the Area 12 Camp were like those in Mercury and included a recreation hall; a movie theater, which ran the same movies as Mercury but a week later; an outdoor ball court; and tennis courts, all of which were constructed in the early 1960s (Reno et al. 2021).

Architects and Engineers

Mason and Hanger/Silas-Mason Company

The original engineering drawings for the Recreation Hall indicate Silas-Mason Company was the engineering firm. Silas-Mason Company was founded in 1925 as a subsidiary company of Mason and Hanger, the oldest architecture and engineering firm in the United States. For much of the 1800s, Mason and Hanger focused on railroad construction. In the early 1900s, Mason and Hanger completed large engineering projects, including a portion of the Chicago River Reversal and tunnel construction in New York and New Jersey. In the early 1940s, Mason and Hanger was constructing World War II ammunition plants and by 1947, the firm began working on AEC contracts, starting with the construction and operation of the Burlington Plant in Iowa, which was the AEC's first production plant for high-explosive components for nuclear weapons.

From 1952 to 1956, Mason and Hanger operated on the NNSS, where the firm designed 300-foot and 500-foot atmospheric test towers for Operations Tumbler-Snapper through Teapot (Campbell et al. 1983), as well as the Gravel Gertie, a unique structure designed to prevent the release of radioactive particles into the atmosphere. In 1956, the firm became the operating contractor for another AEC facility, the Pantex Plant in Texas, where they constructed Gravel Gerties for the safe assembly and disassembly of nuclear weapons based on the design developed at the NNSS a few years prior (NNSA/NFO 2013b).

Lembke Construction Company/Lembke, Clough, and King Construction Company

Lembke Construction Company/Lembke, Clough, and King Construction Company was the contractor responsible for the construction of Building 23-113. The Lembke Construction Company was started in 1886 by Edward E. Lembke. His son, Charles Lembke (1898 to 1989), eventually took over the company. Charles Lembke earned the first civil engineering degree conferred by the University of New Mexico (UNM) in 1912 and later grew the construction company into one of the largest New Mexico-based construction firms. Lembke's ties to New Mexico remained strong throughout his life. He served as a UNM regent as well as the mayor of Albuquerque from 1935 to 1938 (Penrose 1989). Lembke Construction Company was responsible for 17 structures and buildings on the UNM campus, as well as the National Register-listed Lembke House, an International Style residence built in 1930 (NPS 1980), and other buildings throughout Albuquerque.

Lembke Construction Company was referred to as Lembke, Clough, and King Construction Company when it operated in southern Nevada. Dr. Richard H. Clough (1922 to 2004), was born in New Mexico and obtained his BS in Civil Engineering from UNM, his MS from the University of Colorado, and his ScD from Massachusetts Institute of Technology. From 1951 to 1957, he served as executive vice president for the Albuquerque office of Lembke Construction Company/Lembke, Clough, and King Construction Company. Later in life, he worked at UNM, where he served as the dean of the College of Engineering. He authored two textbooks on construction contracting and management (Albuquerque Journal 2004; UNM 2004). Harry King was the vice president of the company's Las Vegas branch office.

The company began to work in Nevada as early as 1941. In the 1940s and 1950s, the Las Vegas office, which operated independently of the Albuquerque office, did extensive construction work in Las Vegas and the surrounding area, including the second building annex for the city's oldest school, the Westside School; theaters and health clubs for casinos on the Strip; the Lucky Strike Club in downtown Las Vegas; and construction in Boulder City for the Bureau of Reclamation (LVRJ 1953, 1954, 1955).

Lembke, Clough, and King Construction Company was one of the earliest contractors to do construction on the NNSS. The AEC awarded the Las Vegas firm a contract for a joint bid to construct nine wood-frame buildings and attendant facilities and a sewage disposal plant in Mercury in 1951 (AEC 1951a). The Recreation Hall was one of these wood-frame buildings. Previously, the firm had been awarded a similar contract on the NNSS to construct multiple reinforced-concrete buildings, presumably test structures in the forward areas (AEC 1951b; AEC 1952a). Later in 1956, the company was awarded an AEC contract to construct two main hoist shelters and four guy winch shelters (LVRJ 1956).

IV. RESOURCE DESCRIPTION

The following description pertains to Building 23-113 (B15236). Although the APE for the undertaking includes potential visual effects to the MHD, is the district is not described in detail herein. This report focuses on the individual evaluation of Building 23-113 within the larger context of the NNSS. The MHD is described in Reno et al. (2018).

Building 23-113 (B15236)

History and Evolution of Building 23-113

The Recreation Hall was one of several shiplap-sided demountable buildings constructed in 1952 by the Lembke, Clough, and King Construction Company (Figure 8). Constructed at a cost of $126,987.58, the original configuration of the building was U-shaped and had a western-facing courtyard covered by redwood louvres (Figure 9). The square footage of the building at the time was 6,701 feet (REECo 1955). The main entrance was in the southeast corner.

Figure 8. Building 23-113 on May 1, 1952. The label misidentifies the building number as 122 (AEC 1952b).

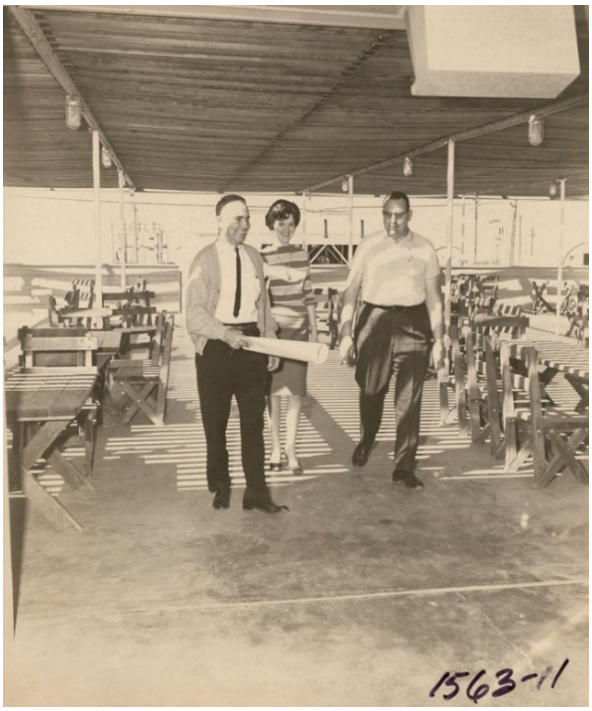

Figure 9. Covered courtyard in the Recreation Hall, March 21, 1963 (REECo 1563-11).

In 1963, the courtyard was enclosed and repurposed into a multipurpose room (Figure 10), a second set of double entryway doors was added, and a breeze-block wall was removed. This modification was intended to fulfill a need for the women in Mercury, who had been hesitant to use the building when the billiards tables and beer bar were busy. Relatively isolated from these activities, the room was accessed from the lounge and was an open space with an open-hearth fireplace (Figure 11). The space was intended to be used for relaxation, conversation, and quiet games, such as checkers, chess, or bridge. Moffit and Hendricks designed the addition and Sierra Construction Company of Las Vegas built it (*NTS News* 1963).

Figure 10. Building 23-113, during modifications, July 31, 1963 (REECo 1673-8).

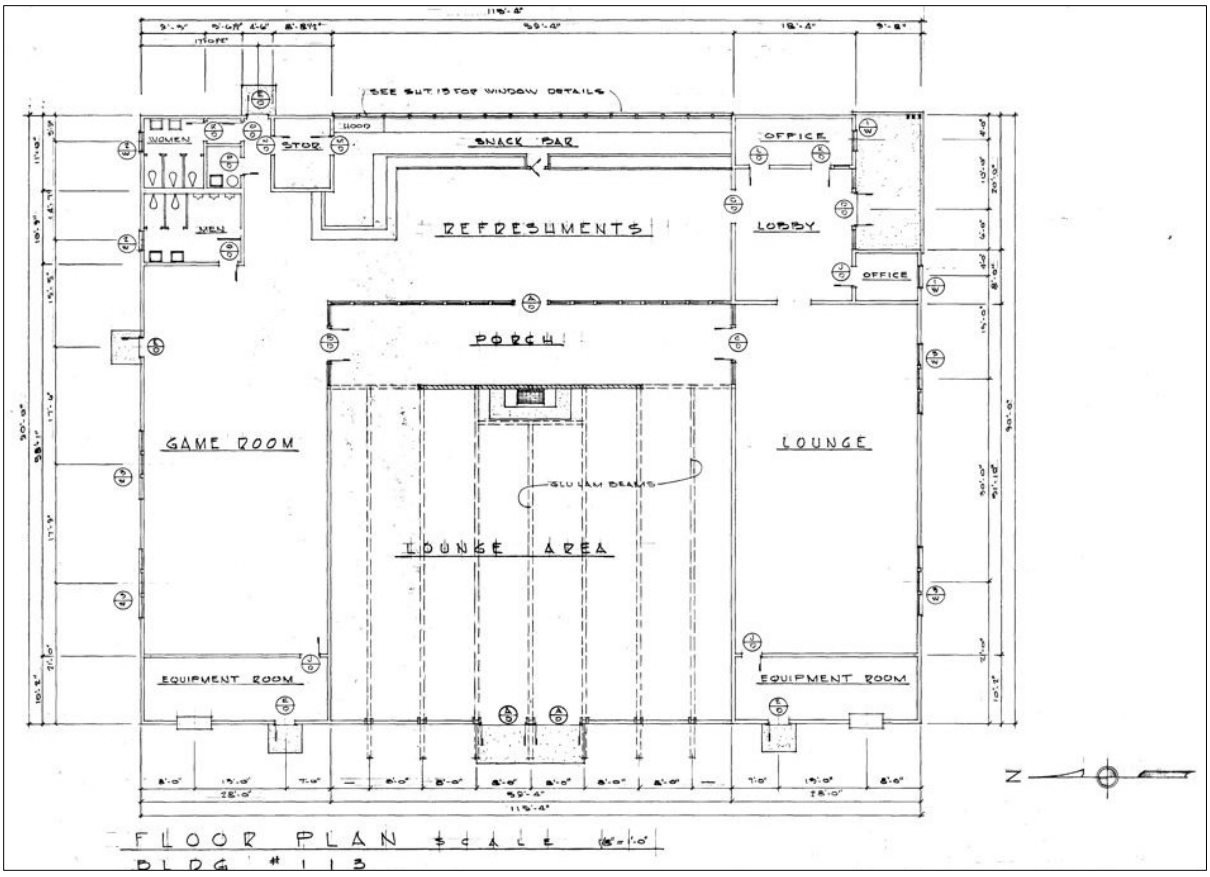

Figure 11. Building 23-113 floor plan, August 5, 1965 (H&N 1965).

In 1968, the interior of the Recreation Hall underwent modifications to accommodate the KNTS radio station. The station was housed in a 12-foot by 20-foot soundproof room in the northwest corner of a television-viewing room in the lounge and it contained a disc jockey desk, record cabinets, and electrical and radio equipment (Figure 12) (*NTS News* 1968). Previously located in Warehouse 2, the radio station moved into the Recreation Hall to motivate personnel to spend more time in the building. The KNTS radio station, which operated 24 hours a day, broadcasted to the immediate area of Mercury. Rather than transmitting through antenna, the radio station used carrier current transmission through the local power lines. The radio station provided hourly news and broadcast music. In an *NTS News* article, the disc jockey noted the station played easy listening music standards, but no western or rock and roll records (*NTS News* 1967). The KNTS radio station's live broadcast was discontinued in 1970 because of recreation budget cuts.

In the early 1970s, the flat roof above the multipurpose area was upgraded with built-up roofing and the wood shiplap siding on the exterior of the building was replaced with aluminum siding. During the 1970s and early 1980s, the recreational use of the building was in decline, and engineering drawings indicate the interior of the building was designed to function as an office space. In 1983, fixtures and ductwork were removed, and a new concrete ramp was installed outside the building. Interior spaces were redesigned to function as a REECo mail and records supply room, offices, and a training area. More changes were made the next year to accommodate a typewriter shop in the lobby near the main entrance of the building. The building continued to function in this capacity until the end of the Cold War in 1992 (Figure 13). The building is still operational today and is used for training purposes and office space.

Figure 12. The KNTS radio station in the Recreation Hall, May 21, 1968 (REECo 2682-10).

Figure 13. Building 23-113, October 14, 1992 (RSL NF-12925) [best copy available].

Current Description

Building 23-113 is currently a one-story, rectangular-plan building on a concrete slab foundation. The building is street level on its northeast end, but because the natural topography of Mercury slopes to the southwest, the western portion of the building is elevated on a large alluvium berm covered with gravel.

The original main block of the building and the former wings have different roof configurations. The roof of the main block is gable-on-hip, and the two wings have hip roofs, whereas the now-enclosed courtyard is covered by a mostly flat roof. The fascia around the whole building is metal and the built-up roof has a reflective white coating. The building retains the original wood-framed, six-over-six, double-hung windows on the north and south elevations, except for the window immediately to the right of the main entrance. The windows are often arranged in groups, as described in further detail below.

The main entry to the building is by way of a concrete porch inset into the southeast corner. The roof of this entryway is supported by three wood columns at the southeast corner (Figure 14). The main entry doors consist of a set of three-light doors with three-light sidelights, which are original to the building. To the east of the entrance is a single window, the top of which has been covered with a metal covering. To the west of this entrance, the remaining portion of the south elevation has two triple windows and a single window.

The east elevation of the building has a concrete ramp on the south end (upgraded from stairs in 1983) to access the main entrance and another metal door with a single, square light at the north end. The roof is extended over the north door to form a hood over the entryway. Along the top of this elevation, just under the soffit, is a length of gypsum-panel-covered clerestory windows (visible in historical photographs, see Figure 8). The HVAC ducting covers part of this elevation and runs to the roof.

The north elevation has two doors. One door is metal with a single, square light and the other is solid metal. This elevation also has two triple windows, two single windows, and a steel ladder for roof access. The single-light door has a hood like the one on the east elevation. Two of the windows appear to have original glass panes.

Figure 14. Building 23-113, south and east elevations, showing the main entrance, facing northwest (223723_3579, DRI 2022).

On the west elevation (Figure 15), glulam rafter tails are exposed where the courtyard was enclosed in the 1960s. Gypsum board painted to resemble the rest of the building is between the rafter tails. A pair of fully glazed metal doors accessible by a concrete walkway and a set of stairs is in the center of this elevation. A second set of adjacent double doors, two other doors, and two windows were removed and covered with aluminum siding in 2002. An electrical panel (installed sometime after 1992) is just left of the double-door entryway.

Figure 15. West elevation of Building 23-113, facing east (223723_3595, DRI 2022).

Alterations in the 1980s and 2000s transformed the interior of the building from its original configuration as a recreational space to office and training space and that is what it remains today. Workstation cubicles are located along the eastern and southern walls of the interior, fully replacing the refreshment areas and original lounge area, and an equipment/break room now occupies the southwest corner of the building. The western portion of the building—which contained the game room, enclosed courtyard, and lounge—were converted into large work areas by tearing down several load-bearing walls, adding several new walls, removing the fireplace, and installing reinforced steel beams and columns. These areas now serve as two large training classrooms. Multiple walls were constructed in the lobby to accommodate a copier room and the room that previously housed the radio station is now a conference room.

Because the building was repurposed, much of the interior no longer resembles what it looked like when it served as the Recreation Hall. Only a few reminders of its time as a recreation building remain, such as stuck-on roof tiles throughout the building; a doorway and a set of window frames that were originally part of the western entrance of the porch; and the enclosed courtyard's glulam rafter beams, now painted white, which are visible on the ceiling of the classrooms.

The broader setting of the Recreation Hall includes Building 23-112 to the east, Building 23-116 to the west and Buildings 23-109 and 23-132 to the south. Buildings 23-112 and 23-109 are rectangular demountable buildings with hipped roofs like Building 23-113, whereas Building 23-116 is a large metal warehouse with a gabled roof and Building 23-132 is a rectangular, prefabricated, metal building with a flat roof. Building 23-113 is immediately surrounded by parking lots on all sides.

Figure 16. Classroom with exposed rafter beams (223723_3541, DRI 2022).

Figure 17. Western entrance of the original porch, now an entrance to a training center/classroom (223723_3548, DRI 2022).

Alterations Summary

The design of Building 23-113 evolved throughout the period of significance in Mercury (1951 through 1992). The building first underwent substantial modifications in 1963, when the courtyard was fully enclosed, converting it to the present square plan and increasing its size from 6,701 to 10,234 square feet. The exterior of the Recreation Hall was modified in 1974, when the original wood shiplap was covered with insulated bevel aluminum siding and portions of the roof were upgraded. The building ceased to be used for recreation in 1980 after part of the Bowling Alley was converted to host other recreational activities. At that time, the Recreation Hall was reconfigured as office and training space for REECo personnel. Additional exterior and interior alterations took place outside the period of significance for Mercury in the early 2000s, such as the installation of new supports and improvements to the building's footings and ceiling, the removal of multiple exterior windows and doors that were then covered with siding, the reconfiguration of interior walls, and the removal of a fireplace.

V. NATIONAL REGISTER EVALUATION OF BUILDING 23-113

As detailed in the following paragraphs, Building 23-113 is significant at the local level as the primary recreation facility in Mercury under Significance Criterion A, but it lacks sufficient integrity to be individually eligible.

Secretary of Interior's Significance Criteria

Criterion A

To be significant under Criterion A, a property must be directly associated with events that have made a significant contribution to the broad patterns of our history. The main context identified as relevant to the evaluation of Building 23-113 is nuclear testing on the NNSS. The building is not directly associated with fulfilling the mission of nuclear testing in the United States during the Cold War, a context with broad national significance. Therefore, the building lacks the direct historical associations needed to consider it significant at the national level of significance.

However, Building 23-113 is significant at the local level under the theme of recreation on the NNSS as the original recreation building in Mercury from 1952 to 1980. Building 23-113 is a reminder of the evolving needs of the earliest years of Mercury to support the off-duty demands of a workforce. Constructed in 1952, the building was specifically designed to fulfill the recreational needs of site personnel. Because Mercury was a restricted access, remote townsite, recreational needs were important for maintaining the morale of personnel.

Criterion B

To be significant under Criterion B, a property must be directly associated with the productive life of a significant person. There is no evidence to suggest that Building 23-113 has such a direct association with any specific significant persons. Although many people on the NNSS likely used the Recreation Hall, the collective contributions of these individuals within the context of nuclear testing on the NNSS are best understood by the scientific and technical facilities elsewhere on the NNSS. Building 23-113 is not significant under Criterion B.

Criterion C

According to *National Register Bulletin #15* (NPS 1997), properties significant under Criterion C must embody the distinctive characteristics of a type, period, or method of construction; represent the work of a

master; possess high artistic values; or represent a significant and distinguishable entity whose components may lack individual distinction.

To embody the distinctive characteristics of a type, period, or method of construction, a property must clearly illustrate the distinctive characteristics of a pattern of features common to a particular class of resources, the individuality or variation of features that occur within the class, or the evolution or transition between classes of resources (NPS 1997:18). Building 23-113 does not clearly illustrate any of these distinctive characteristics. The building is an example of the demountable buildings constructed early on in Mercury's development, but these types of buildings were simple, utilitarian constructions. In addition, although the building was constructed to serve a recreational purpose in contrast to other buildings of the era, the building design had few modifications to reflect its recreational function. Perhaps the most unique exterior design element related to its recreational use was the covered courtyard on the west side of the building. The courtyard was enclosed in the 1960s, so the building now has a rectangular plan rather than its original U-shape and glulam rafter ends are the only easily discernible remnant of the original courtyard. Currently, the building resembles much of the other remaining demountable buildings in Mercury and it is not a unique or outstanding example compared with its contemporaries. Therefore, the building does not embody the distinctive characteristics of any particular type, period, or method of construction.

The building was constructed by Lembke, Clough, and King Construction Company. Principals Lembke and Clough were engineering contractors known for their buildings on the UNM campus and elsewhere in Albuquerque. However, their involvement in the projects undertaken by the Las Vegas office of the firm is not clear. As engineering contractors, their contributions to the built environment may be significant in the local context of Albuquerque, but the Recreation Hall and other modern and utilitarian constructions by this firm in Mercury and on the NNSS do not represent the work of a master.

According to *National Register Bulletin #15*, the aspect of Criterion C related to possessing high artistic value applies to properties that so fully articulate a particular concept of design that they express an aesthetic ideal (NPS 1997:20). As a simple, wood-frame demountable building, the Recreation Hall does not meet this aspect of Criterion C.

The last aspect of Criterion C, regarding representing a significant and distinguishable entity whose components may lack individual distinction, generally applies to historic districts. Building 23-113 is a contributor to the MHD, but it is not a district in and of itself. Therefore, the building is not significant under this aspect of Criterion C.

For the reasons outlined above, Building 23-113 is not significant under Criterion C.

Criterion D

The most important questions regarding the NNSS relate to nuclear testing. Data to address these questions are likely to be found in laboratories or testing-related facilities. There is no potential for Building 23-113 to have this kind of research potential. The building is not significant under Criterion D.

Integrity

Integrity is defined as the ability of a property to convey its significance. The NRHP recognizes seven aspects of physical integrity for historic properties: setting, location, design, materials, workmanship, feeling, and association.

The building is significant under Criterion A at the local level for its role as the Recreation Hall in Mercury. However, because of alterations to the building as a result of the successful adaptation and repurposing of the building into an office and training facility in the 1980s, integrity of design, materials, and feeling have been severely compromised. The building is no longer able to convey sufficient integrity as a Recreation Hall. Although the distinctive front entrance remains intact, much of the interior design has been substantially altered and there is little of the interior intact that conveys its historic character as the Recreation Hall. Therefore, the building no longer conveys the feeling of a Recreation Hall and instead strongly exhibits its use as an office space during a later period of use that is not significant under a particular context or theme.

VI. CONCLUSION

Building 23-113 served as the primary venue for the Mercury workforce to gather and engage in social activities from 1952 to 1980. After 1980, the building was repurposed into an office and training facility to meet the needs of the time. The building is individually significant under the theme of recreation on the NNSS at the local level from 1952 to 1980, but it does not have sufficient integrity to convey its significance under this theme because of alterations made to transform it into an office building. Therefore, Building 23-113 is not individually eligible for listing in the NRHP. The building remains eligible as a contributing element to the MHD.

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CULTURAL RESOURCES FINDING OF EFFECT
REPORT LR010322-1-FOE
PROJECT NO. 223723

FINDING OF ADVERSE EFFECT AND PROPOSED MITIGATION FOR THE DEMOLITION OF BUILDING 23-113, MERCURY, AREA 23, NEVADA NATIONAL SECURITY SITE, NYE COUNTY, NEVADA

Prepared by

Tatianna Menocal
Division of Earth and Ecosystem Sciences
Desert Research Institute, Las Vegas, Nevada

Reviewed by

Laura O'Neill, Architectural Historian
Division of Earth and Ecosystem Sciences
Desert Research Institute, Las Vegas, Nevada

Prepared for

U.S. Department of Energy
National Nuclear Security Administration
Nevada Field Office, Las Vegas, Nevada

Submitted by

Maureen King, Project Director
Division of Earth and Ecosystem Sciences
Desert Research Institute, Las Vegas, Nevada

April 2022

The work upon which this report is based was supported by the U.S. Department of Energy, National Nuclear Security Administration Nevada Field Office under Contract #DE-NA0003590.

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INTRODUCTION

The U.S. Department of Energy (DOE), National Nuclear Security Administration Nevada Field Office (NNSA/NFO) plans to demolish Building 23-113 in Mercury (Nevada State Historic Preservation Office [SHPO] Resource No. B15236), which is on the Nevada National Security Site (NNSS) in Nye County, Nevada. The purpose of the undertaking is related to the modernization of Mercury for future mission needs.

The NNSA/NFO will implement this undertaking in accordance with the *Programmatic Agreement between the National Nuclear Security Administration Nevada Field Office and the Nevada State Historic Preservation Officer Regarding Modernization and Operational Maintenance of the Nevada National Security Site, at Mercury in Nye County, Nevada*, hereafter referred to as the Mercury PA.

Building 23-113 was built in 1952 to function as a recreation hall. In the 1980s, it was repurposed to serve an office and training function. The town of Mercury and the immediate surrounding area have been formally determined eligible for listing in the National Register of Historic Places (National Register, NRHP) as the Mercury Historic District (MHD, SHPO Resource #D230) under Criteria A and C for its importance in supporting nuclear testing and scientific research from 1951 through 1992.

Building 23-113 was identified as a contributing element to the MHD in a 2018 architectural survey of the district (Reno et al.) and recorded on a Nevada Architectural Resource Assessment (ARA) form (Reno et al. 2017). Building 23-113 was also identified in Appendix C of the Mercury PA as a Category I contributing element, indicating that it might be individually eligible for the NRHP. It is a historic property for the purposes of compliance with Section 106 of the National Historic Preservation Act (NHPA) and subject to the stipulations of the Mercury PA.

AREA OF POTENTIAL EFFECT

The Area of Potential Effect (APE) for the undertaking was defined in accordance with Stipulation II of the Mercury PA. For direct effects, the APE includes the footprint of Building 23-113 plus a buffer of 25 feet from the perimeter of the footprint in accordance with Stipulation II.A.1. For indirect effects, such as visual, atmospheric, and audible effects, it coincides with the boundary of the MHD per Stipulation II.B. For cumulative effects and new construction (Stipulations II.C and II.D, respectively), the APE boundary is the same as for indirect effects.

ELEMENT CATEGORY IDENTIFICATION

Building 23-113 was identified in Appendix C of the Mercury PA as a Category I contributing element to the MHD. When an undertaking has the potential to affect Category I elements, Stipulation VI of the Mercury PA requires that Category I elements be evaluated for individual eligibility for listing in the NRHP prior to initiating any work that might affect the elements. In compliance with Stipulation VI, Desert Research Institute (DRI), on behalf of the NNSA/NFO, evaluated Building 23-113 in *Cultural Resources Report SR010322-1: Evaluation of the Building 23-113, Mercury, Area 23, Nevada National Security Site, Nye County, Nevada* (Menocal 2022). Desert Research Institute found that Building 23-113 does not appear to be individually eligible for listing in the NRHP under any of the Secretary of the Interior's (SOI) Significance Criteria.

APPLICATION OF THE CRITERIA OF ADVERSE EFFECT

After informal consultation with the DRI subject matter expert and applying the criteria of adverse effect, the NNSA/NFO Cultural Resource Manager (NFO/CRM) has determined that the planned demolition of Building 23-113 will result in the physical destruction of the building. This will constitute an **Adverse**

Effect to historic properties as defined in Title 36 of the Code of Federal Regulations (36 CFR) Part 800.5(a)(2)(i)). The undertaking will directly affect a historic property that is a contributing element of the MHD. It will therefore directly alter the physical characteristics that qualify a contributing element of the MHD for inclusion in the NRHP.

As required by Mercury PA Stipulation VII.C, the NNSA/NFO is submitting this finding of Adverse Effect for the proposed undertaking and a mitigation plan with the following additional documentation: *Cultural Resources Report SR010322-1* which includes the individual NRHP evaluation for Building 23-113.

MITIGATION PLAN FOR BUILDING 23-113

The NNSA/NFO has determined that Building 23-113 is not individually eligible for the NRHP at the national or any other level. Therefore, Building 23-113 is addressed as a Category II element of the MHD. Mercury PA Stipulation VIII.C outlines anticipated mitigation for Category II contributing elements. Such mitigation includes: 1) an ARA form; 2) high-quality digital images; 3) current annotated sketch plan, which indicates room layout and use with photograph views keyed to the plan; and 4) a brief letter report describing mitigation contents and summarizing the element's historic significance in the context of the MHD.

Building 23-113 was recorded on an ARA form in 2017 (Reno et al.). Therefore, an ARA Update form will be prepared to satisfy Stipulation VIII.C.1.a. It will provide additional information about the historic property, an individual evaluation for NRHP eligibility, historic photographs, and historic architectural drawings. Current high-quality digital images keyed to an annotated sketch plan will be added to the ARA Update to satisfy Stipulations VIII.C.1.b and c. The high-quality digital images will include overviews, elevations, unique and significant details, and interior. A brief letter report describing the element class and its historic significance in the context of MHD will be prepared to fulfill Stipulation VIII.C.1.d.

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DESERT RESEARCH INSTITUTE
CULTURAL RESOURCES MITIGATION SUBMISSION
LETTER REPORT LR010322-1-MIT
PROJECT NO. 223723

SUBMISSION OF MITIGATION DOCUMENTATION RELATED TO THE DEMOLITION OF BUILDING 23-113, MERCURY, AREA 23, NEVADA NATIONAL SECURITY SITE, NYE COUNTY, NEVADA

Prepared by

Tatianna Menocal
Division of Earth and Ecosystem Sciences
Desert Research Institute, Las Vegas, Nevada

Reviewed by

Laura O'Neill, Architectural Historian
Division of Earth and Ecosystem Sciences
Desert Research Institute, Las Vegas, Nevada

Prepared for

U.S. Department of Energy
National Nuclear Security Administration
Nevada Field Office, Las Vegas, Nevada

Submitted by

Maureen King, Project Director
Division of Earth and Ecosystem Sciences
Desert Research Institute, Las Vegas, Nevada

April 2022

The work upon which this report is based was supported by the U.S. Department of Energy, National Nuclear Security Administration Nevada Field Office under Contract #DE-NA0003590.

INTRODUCTION

The purpose of this letter report is to submit documentation related to the mitigation of the demolition of Building 23-113 (Nevada State Historic Preservation Office [SHPO] Resource No. B15236) in the Mercury Historic District (MHD, SHPO Resource No. D230). This submission is intended to comply with the stipulations in the *Programmatic Agreement between the National Nuclear Security Administration Nevada Field Office and the Nevada State Historic Preservation Officer Regarding Modernization and Operational Maintenance of the Nevada National Security Site, at Mercury in Nye County, Nevada*, hereafter referred to as the Mercury PA.

MITIGATION FOR THE BUILDING 23-113

The NNSA/NFO Cultural Resource Manager (NFO/CRM) and the Desert Research Institute (DRI) subject matter expert, in consultation with the SHPO, defined Building 23-113 as a Category I element. Upon completion of the National Register of Historic Places (NRHP) evaluation of the element, the finding is the building is not individually eligible for listing in the NRHP but contributes to the eligibility of the MHD. Therefore, Building 23-113 is addressed as a Category II contributing element of the MHD for the purpose of mitigation (Stipulation IV.B.2). Mercury PA Stipulation VIII.C outlines anticipated mitigation for Category II contributing elements. Such mitigation includes: 1) an ARA form; 2) high-quality digital images; 3) current annotated sketch plan, which indicates room layout and use with photograph view keyed to the plan; and 4) a brief letter report describing mitigation contents and summarizing the element's historic significance in the context of the MHD.

Mitigation for Building 23-113 was completed in accordance with Stipulation VIII.C. Because Building 23-113 was recorded on an Architectural Resource Assessment (ARA) form in 2017, an ARA Update form was prepared to satisfy Stipulation VIII.C.1.a. It provides additional information about the historic property, an individual evaluation for NRHP eligibility, and additional current and historic photographs, as well as copies of historic architectural drawings. High-quality digital images (Stipulation VIII.C.1.b) were taken on February 28, 2022, and include overviews, elevation, unique and significant details, and interior views. The photographs are keyed to an aerial and a plan view of the building to satisfy Stipulation VIII.C.1.c. This letter report fulfills Stipulation VIII.C.1.d.

Review of Standard Mitigation

The size of the files for the ARA Update form and photography are not compatible with an electronic submission per Stipulation VIII.D.1. Therefore, documents are being submitted in hard copy.

Enclosed Documentation

The following documentation is attached for SHPO review and comment to meet standard mitigation requirements for the Category II element (Stipulation VIII.D):

- An updated ARA form for Building 23-113 (VIII.D.1)
    - Updated descriptive and historical information
    - Individual NRHP evaluation
    - Historic architectural drawings
    - Historic photographs
    - Current digital images with index and image key plan maps

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NEVADA STATE HISTORIC PRESERVATION OFFICE

Architectural Resource Assessment (ARA) Form (Update)

For SHPO Use Only	SHPO Concurrence?: Y / N		Date:		
Survey Date	February 2022	Recorded By	Menocal, O'Neill, Wedding, and Brannan	Agency Report #	DRI SR010322-1

The purpose of this update is to mitigate the demolition of the Building 23-113 (State Historic Preservation Officer [SHPO] Resource No. B15236) in Mercury on the Nevada National Security Site (NNSS) in accordance with the 2018 *Programmatic Agreement between the National Nuclear Security Administration Nevada Field Office and the Nevada State Historic Preservation Officer regarding Modernization and Operational Maintenance of the Nevada National Security Site, at Mercury in Nye County, Nevada* (Mercury PA). As part of the Mercury PA, the U.S. Department of Energy (DOE), in consultation with the SHPO, developed standard mitigation measures for resolving adverse effects to contributing buildings and structures within the Mercury Historic District (MHD). The MHD is eligible for listing in the National Register of Historic Places (NRHP) under the Secretary of the Interior's Significance Criteria A and C, as defined in 36 CFR Part 60.4, as a significant concentration of buildings and structures with a direct, important association with Cold War-era nuclear testing from 1951 through 1992. Building 23-113 is a contributing element of the MHD per the architectural survey of the district completed in 2018 (Reno et al. 2018). The building was identified as a Category I element in Appendix C of the Mercury PA and therefore must be mitigated according to Mercury PA Stipulation VIII.A.

Per Stipulation VIII.A.2, Building 23-113 was evaluated for NRHP significance (see Menocal 2022). The evaluation concluded that although Building 23-113 is significant at the local level for its important role as a recreational facility in Mercury from 1952 to 1980, the building lacks sufficient integrity to convey its significance. It is not individually eligible for listing in the NRHP at any level. Therefore, for the purposes of mitigation, Building 23-113 is considered a Category II element of the MHD.

In accordance with standard mitigation for Category II elements (Stipulation VIII.C.1) in the Mercury PA, this updated ARA form includes:

- Updated descriptive and historical information
- Individual NRHP evaluation of Building 23-113 as an individual historic property using the Secretary of the Interior's criteria for evaluation
- Current digital images with an index and keyed to a current annotated sketch plan
- Historic photographs
- Historic architectural drawings

5. NRHP Eligibility - Individual

If not already listed, complete the information below:

Eligible Under:	Criterion A ☐	Criterion B ☐	Criterion C ☐	Criterion D ☐
	Not Eligible ☒	Unevaluated ☐		

Area(s) of Significance	Nuclear Testing, Townsite Development						
Period(s) of Significance	1952-1992						
Integrity – Does the resource possess integrity in all or some of the 7 aspects?							
Location ☒	Design ☐	Materials ☐	Workmanship ☒	Setting ☒	Feeling ☐	Association ☒	
General Integrity:	Intact ☐	Altered ☒	Moved ☐	Date(s):1963,1974, early 1980s, 2000s			
Threats to Resource:	Demolition						
Historic Name	Recreation Hall						
Current/Common Name	MSTS Training						
Historic/Original Owner	U.S. Atomic Energy Commission						
Current Owner	U.S. Department of Energy Nevada National Security Administration Nevada Field Office						
Current Owner Address	Nevada National Security Site						
Historic Building Use	Recreation Hall						
Current Building Use	Office						
Architect/Engineer/Designer	Orig.: Silas Mason Company; Courtyard Enclosure: Moffitt and Hendricks Architects						
Builder/Contractor	Lembke Construction Company/ Lembke Clough and King Construction Co.						

Note: Blue shaded cells have been updated. The rest of the table is identical to the original ARA form.

6. Narrative Eligibility Justification

Provide a detailed explanation of the resource's eligibility for the National Register, including supporting historic information, methods for evaluation under the four criteria, discussion of the seven aspects of integrity, and conclusions about eligibility.

National Register of Historic Places Eligibility

Building 23-113 was originally recorded as SHPO Resource No. B15236 in 2017 during an architectural survey of the townsite of Mercury (Reno et al. 2017, 2018). It was only evaluated as a potential district contributing element at that time. The following provides a detailed individual evaluation of the building against the four Significance Criteria and analyzes its physical integrity.

Historic Context

The following section presents contexts and themes related to Building 23-113 for the purpose of evaluating the property for individual NRHP eligibility. The main context identified as relevant to the evaluation and necessary for understanding the extant property is Nuclear Testing on the NNSS. Recreation on the NNSS was identified as the most relevant theme. Information on the engineering and contracting firms responsible for Building 23-113 follows the recreation theme narrative. Broader contexts and themes related to the MHD and nuclear testing during the Cold War period are detailed in *Architecture of Mercury* (Reno et al. 2018) and the *Draft Cultural Resource Management Plan for the Nevada National Security Site, Nye County, Nevada* (Rhode et al. 2020), respectively, and are not discussed at length herein.

Nuclear Testing on the NNSS

The continental nuclear test site, now known as the NNSS, has gone through several name changes over time, from South Site, Alternate Test Site B, Site Mercury, and Nevada Test Site (NTS) in 1950-51 to Nevada Proving Ground in 1952 and back to NTS in January 1955. Its name remained NTS for the rest of the Cold War. The facility was renamed for the last time in 2010 and is currently managed as the NNSS.

Nuclear testing has been a major and important part of the history of Nevada and the United States (Tlachac 1991a, 1991b). Much of this activity revolved around the NNSS, where most of the developments and experiments in nuclear weapons were tested both above- and belowground. The consequences of these activities have been felt worldwide, played a vital role in the national defense of our country, and helped shape world politics.

In the late 1940s, prior to establishing the NNSS, both low- and high-yield nuclear tests were conducted at the Pacific Proving Grounds in the vicinity of the Marshall Islands. Transporting personnel and equipment back and forth between the test area and the scientific laboratories was expensive and time-consuming. The Armed Forces Special Weapons Project conducted a top-secret feasibility study named Project Nutmeg to find a suitable nuclear test site in the continental United States (Fehner and Gosling 2006:36). The Korean War, which began in 1950, escalated security concerns at the Pacific Proving Grounds providing further motivation for the continental search (DTRA 2002:77; Friesen 1995:4).

The ideal continental test site would have favorable and predictable weather and terrain conditions for year-round testing, the land would be under federal control, and it would have an infrastructure already in place (Lay 1950; Tlachac 1991a). Other important factors included security, remoteness from populated areas, and relative proximity to the scientific laboratories in New Mexico. The Las Vegas Bombing and Gunnery Range in southern Nevada was selected as the place that best met these criteria (Fehner and Gosling 2006:43). The range also had large, flat terrain to conduct tests, westerly prevailing winds away from the densely populated West Coast, and natural topographic barriers to screen the test areas from public viewing. Based on the recommendations of the Los Alamos National Laboratory (LANL), the Atomic Energy Commission (AEC), and the National Security Council, President Truman approved the new test site location on December 18, 1950.

McKee Construction Company and Reynolds Electrical & Engineering Company (REECo) were hired to begin preparing for the first tests, focusing most of their work on the ground zero area in Frenchman Flat (Campbell et al. 1983:174; Fehner and Gosling 2000:51, 64). Both companies worked as construction contractors at the LANL in New Mexico and were familiar with the proposed tasks. The Ranger nuclear test series in Frenchman Flat began on January 27, 1951, with the Able test and ended with the Fox test on February 6, 1951 (Fehner and Gosling 2000:70,

75; NNSA/NFO 2015; Ogle 1985:43-44; Titus 1986:58). As a safety measure, the primary testing area was moved north from Frenchman Flat to Yucca Flat for the next series of tests in the fall of 1951.

The town of Mercury quickly became the administrative and residential hub of the NNSS in the 1950s. Initially named Base Camp Mercury, it was planned to provide minimum facilities for two or three test series a year, with a six-week time frame for each series. Holmes & Narver (H&N) and Silas Mason Company, two prominent government contractors during the Cold War, shared in the design of Mercury, which initially included barracks, a mess hall, and administrative buildings. The camp was designed to accommodate 412 persons at peak periods of use for only 18 weeks a year. By late 1951, these expectations were already obsolete because the camp overflowed with 1,100 residents (Fehner and Gosling 2000:81).

In response, a $6.7 million construction project was approved to meet the needs of the growing testing program and population in Mercury (NNSA/NFO 2013a). The AEC expanded the base camp, adding more barracks, a second mess hall, a recreational facility (Building 23-113), a warehouse, offices, and laboratory space (Fehner and Gosling 2000). Over the next several years, testing-related activities steadily increased, and testing occurred on a year-round basis. This required additional construction to accommodate personnel and support facilities. On March 1, 1952, the Post Office was established with the official designation of Mercury, Nye County, Nevada (Gamett and Paher 1983:92). Other buildings and structures on the NNSS were added in the forward areas and were often arranged in compounds built for specific purposes, such as those constructed for the Nuclear Rocket Development Station (NRDS) in Area 25.

Also in 1958, both the United States and the former Soviet Union ceased nuclear testing by self-imposed moratoria at the urging of internal and external forces (Ogle 1985:30-31). By 1961, however, both superpowers were once again conducting tests. In 1963, the United States, Soviet Union, and Great Britain ratified the Limited Test Ban Treaty, sending all weapons-related tests underground and prohibiting tests in the air, at the surface, and underwater (Friesen 1995:6).

Although atmospheric testing ended, underground testing activities at the NNSS steadily expanded, and testing occurred on a year-round basis in the 1960s. In addition, the Plowshare Program and the NRDS brought increased activity to the site (Fehner and Gosling 2000:83; NNSA/NFO 2013a). This required additional construction to meet demands for a wide range of new facilities.

In 1962, an AEC supplemental appropriations bill provided funds to add to or replace most of the earlier temporary buildings at the site and included a $15 million request for permanent NNSS construction (NNSA/NFO 2013a). By June, the AEC contracted Arthur Benedict Associates of Los Angeles, California, to develop a long-range comprehensive master plan for the coordinated development of Mercury.

The Mercury Master Plan (ABA 1962) proposed an expansion of all facilities to create a permanent site. Facilities programmed for construction during fiscal years 1963 and 1964 were support facilities (the cafeteria and food handling areas, administrative buildings, laboratories, maintenance shops, warehouses, communications, and the Civil Effects Test Organization building), resident-oriented facilities (the dormitories, swimming pool, bowling alley, chapel, and health, medical, and safety building), circulation (the Camp Desert Rock airstrip, US 95 improvements, the Mercury Bypass, and primary and secondary streets), and utilities (a new power transmission line and sewage treatment plant).

Underground testing on the NNSS continued at a steady pace until 1992, when the United States established a second self-imposed moratorium on nuclear testing. In the 1970s and 1980s, buildings and structures were added throughout the site to meet mission demands and improvements in technology. However, many of the earlier buildings, including Building 23-113 remained in use until 1992 and beyond. Perhaps the most notable example is the CP-1 Building, which was used continuously as the control point for all tests from when it was constructed in 1952 until the end of nuclear testing on the NNSS.

After 1992, the DOE began conducting subcritical experiments to maintain the safety and reliability of the national nuclear stockpile without conducting full-scale tests. Main activities on the NNSS through the present day include subcritical experiments and other Stockpile Stewardship programs, along with planning, experimentation, and training to prevent and counter global and homeland security threats.

Recreation on the NNSS

The initial design of Mercury did not include recreational spaces because the town was not supposed to be occupied year-round. As the testing program grew so did the population of Mercury and the first recreational spaces were created as part of the AEC's construction development project in late 1951. The two earliest recreational facilities in Mercury were the Recreation Hall (Building 23-113) and a movie theater (Building 23-125) (NNSA/NFO 2013a). The Recreation Hall was a wood-frame building, whereas the movie theater was located in a Quonset hut. The Recreation Hall originally had a lounge, a game room, a refreshment area with a snack bar and soda foundation, and a courtyard area. The Recreation Hall provided personnel with a library and a game room with billiards and table tennis tables, as well as spaces for them to participate in bridge tournaments or square-dancing classes (NNSA/NFO 2013a).

By 1958, additional recreational spaces were created, and Dell Frenzi Park was constructed in the southern portion of Mercury. The park had a tennis court, a baseball field, a picnic area, and an archery range. The western portion of the park had an area covered with grass that was used for volleyball and badminton until an administrative building to the west of the park was expanded.

Recreational facilities in Mercury continued to expand in the 1960s. The Master Plan developed by Arthur Benedict Associates noted that facilities in Mercury were limited and did not provide for "a wide range of diverting interests" (ABA 1962). Their plan recommended additional outdoor and indoor facilities that would offer more recreational opportunities. Recreational facilities programmed for fiscal year 1963 included an Olympic-sized swimming pool and dressing room, and an adjacent bowling alley, but only the bowling alley was ultimately constructed. The eight-lane bowling alley and full-service snack bar opened on February 1, 1964 (NNSA/NFO 2013a).

The Recreation Hall (Building 23-113) ceased being used for recreation in 1980, but by 1986, the number of recreational facilities in Mercury had reached its peak. Facilities at that time included the Bowling Alley, Pool and Change Building, Rock [Lapidary] Shop, Theater, Gymnasium, Physical Condition Track, Golf Driving Range, and the Softball Field, Picnic Area, Tennis Courts, and Basketball Courts at Dell Frenzi Park. By 1992, the gymnasium had been repurposed into a warehouse and the Recreation Hall was used as an office and training facility (RSN 1992). Of these facilities, the Recreation Hall (Building 23-113) and Physical Condition Track still exist, but only the latter serves a recreational purpose.

On the NNSS, other recreational facilities were constructed at the Area 12 Camp, which was a forward area base camp that supported testing activities on the mesas from 1960 through the end of nuclear testing in 1992. Recreational facilities at the Area 12 Camp were like those in Mercury and included a recreation hall; a movie theater, which ran the same movies as Mercury, but a week later; an outdoor ball court; and tennis courts, all of which were constructed in the early 1960s (Reno et al. 2021).

Architects and Engineers

Mason and Hanger / Silas-Mason Company

The original engineering drawings for the Recreation Hall indicate Silas-Mason Company was the engineering firm. Silas-Mason Company was founded in 1925 as a subsidiary company of Mason and Hanger, the oldest architecture and engineering firm in the United States. For much of the 1800s, Mason and Hanger focused on railroad construction. In the early 1900s, Mason and Hanger completed large engineering projects, including a portion of the Chicago River Reversal and tunnel construction in New York and New Jersey. In the early 1940s, Mason and Hanger was constructing World War II ammunition plants and by 1947, the firm began working on AEC contracts, starting with the construction and operation of the Burlington Plant in Iowa, which was the AEC's first production plant for high-explosive components for nuclear weapons.

From 1952 to 1956, Mason and Hanger operated on the NNSS, where the firm designed 300-foot and 500-foot atmospheric test towers for Operations Tumbler-Snapper through Teapot (Campbell et al. 1983), as well as the Gravel Gertie, a unique structure designed to prevent the release of radioactive particles into the atmosphere. In 1956, the firm became the operating contractor for another AEC facility, the Pantex Plant in Texas, where they

constructed Gravel Gerties for the safe assembly and disassembly of nuclear weapons based on the design developed at the NNSS a few years prior (NNSA/NFO 2013b).

Lembke Construction Company / Lembke, Clough, and King Construction Company

Lembke Construction Company/Lembke, Clough, and King Construction Company was the contractor responsible for the construction of Building 23-113. The Lembke Construction Company was started in 1886 by Edward E. Lembke. His son, Charles Lembke (1898 to 1989), eventually took over the company. Charles Lembke earned the first civil engineering degree conferred by the University of New Mexico (UNM) in 1912 and later grew the construction company into one of the largest New Mexico-based construction firms. Lembke's ties to New Mexico remained strong throughout his life. He served as a UNM regent as well as the mayor of Albuquerque from 1935 to 1938 (Penrose 1989). Lembke Construction Company was responsible for 17 structures and buildings on the UNM campus, as well as the National Register-listed Lembke House, an International Style residence built in 1930 (NPS 1980), and other buildings throughout Albuquerque.

Lembke Construction Company was referred to as Lembke, Clough, and King Construction Company when it operated in southern Nevada. Dr. Richard H. Clough (1922 to 2004), was born in New Mexico and obtained his BS in Civil Engineering from UNM, his MS from the University of Colorado, and his ScD from Massachusetts Institute of Technology. From 1951 to 1957, he served as executive vice president for the Albuquerque office of Lembke Construction Company/Lembke, Clough, and King Construction Company. Later in life, he worked at UNM, where he served as the dean of the College of Engineering. He authored two textbooks on construction contracting and management (Albuquerque Journal 2004; UNM 2004). Harry King was the vice president of the company's Las Vegas branch office.

The company began to work in Nevada as early as 1941. In the 1940s and 1950s, the Las Vegas office, which operated independently of the Albuquerque office, did extensive construction work in Las Vegas and the surrounding area, including the second building annex for the city's oldest school, the Westside School; theaters and health clubs for casinos on the Strip; the Lucky Strike Club in downtown Las Vegas; and construction in Boulder City for the Bureau of Reclamation (LVRJ 1953, 1954, 1955).

Lembke, Clough, and King Construction Company was one of the earliest contractors to do construction on the NNSS. The AEC awarded the Las Vegas firm a contract for a joint bid to construct nine wood-frame buildings and attendant facilities and a sewage disposal plant in Mercury in 1951 (AEC 1951a). The Recreation Hall was one of these wood-frame buildings. Previously, the firm had been awarded a similar contract on the NNSS to construct multiple reinforced-concrete buildings, presumably test structures in the forward areas (AEC 1951b; AEC 1952a). Later in 1956, the company was awarded an AEC contract to construct two main hoist shelters and four guy winch shelters (LVRJ 1956).

Significance Evaluation

As detailed in the following paragraphs, Building 23-113 is significant at the local level as the primary recreation facility in Mercury under Significance Criterion A, but it lacks sufficient integrity to convey its significance. It does not appear to be individually eligible for the NRHP as a result.

Criterion A

To be significant under Criterion A, a property must be directly associated with events that have made a significant contribution to the broad patterns of our history. The main context identified as relevant to the evaluation of Building 23-113 is nuclear testing on the NNSS. The building is not directly associated with fulfilling the mission of nuclear testing in the United States during the Cold War, a context with broad national significance. Therefore, the building lacks the direct historical associations needed to consider it significant at the national level of significance.

However, Building 23-113 is significant at the local level, under the theme of recreation on the NNSS as the original recreation building in Mercury from 1952 to 1980. Building 23-113 is a reminder of the evolving needs of the earliest years of Mercury to support the off-duty demands of a workforce. Constructed in 1952, the building was specifically designed to fulfill the recreational needs of site personnel. Because Mercury was a restricted access, remote townsite, recreational needs were important for maintaining the morale of personnel.

Criterion B

To be significant under Criterion B, a property must be directly associated with the productive life of a significant person. There is no evidence to suggest that Building 23-113 has such a direct association with any specific significant persons. Although many people on the NNSS likely used the recreation hall, the collective contributions of these individuals within the context of nuclear testing on the NNSS are best understood by the scientific and technical facilities elsewhere on the NNSS. Building 23-113 is not significant under Criterion B.

Criterion C

According to National Register Bulletin #15 (NPS 1997), properties significant under Criterion C must embody the distinctive characteristics of a type, period, or method of construction; represent the work of a master; possess high artistic values; or represent a significant and distinguishable entity whose components may lack individual distinction.

To embody the distinctive characteristics of a type, period, or method of construction, a property must clearly illustrate the distinctive characteristics of a pattern of features common to a particular class of resources, the individuality or variation of features that occur within the class; or the evolution or transition between classes of resources (NPS 1997:18). Building 23-113 does not clearly illustrate any of these distinctive characteristics. The building is an example of the demountable buildings constructed early on in Mercury's development, but these types of buildings were simple, utilitarian constructions. In addition, although the building was constructed to serve a recreational purpose in contrast to other buildings of the era, the building design had few modifications to reflect its recreational function. Perhaps the most unique exterior design element related to its recreational use was the building's covered courtyard on the west side of the building. The courtyard was enclosed in the 1960s so the building now has a rectangular plan rather than its original U-shape, glulam rafter ends are the only easily discernible remnant of the original courtyard. Currently, the building resembles much of the other remaining demountable buildings in Mercury and it is not a unique or outstanding example compared with its contemporaries. Therefore, the building does not embody the distinctive characteristics of any particular type, period, or method of construction.

The building was constructed by Lembke, Clough, and King Construction Company. Principals Lembke and Clough were engineering contractors known for their buildings on the UNM campus and elsewhere in Albuquerque. However, their involvement in the projects undertaken by the Las Vegas office of the firm is not clear. As engineering contractors, their contributions to the built environment may be significant in the local context of Albuquerque, but the Recreation Hall and other modern and utilitarian constructions by this firm in Mercury and on the NNSS do not represent the work of a master.

According to National Register Bulletin #15, the aspect of Criterion C related to possessing high artistic value applies to properties that so fully articulate a particular concept of design that they express an aesthetic ideal (NPS 1997:20). As a simple, wood-frame demountable building, the Recreation Hall does not meet this aspect of Criterion C.

The last aspect of Criterion C, regarding representing a significant and distinguishable entity whose components may lack individual distinction, generally applies to historic districts. Building 23-113 is a contributor to the MHD, but it is not a district in and of itself. Therefore, the building is not significant under this aspect of Criterion C.

For the reasons outlined above, Building 23-113 is not significant under Criterion C.

Criterion D

The most important questions regarding the NNSS relate to nuclear testing and if it is associated with individual resources. These are likely to be found in laboratory/radiation-related facilities. There is no potential for Building 23-113 to have this kind of research potential. It is not significant under Criterion D.

Integrity Analysis

Integrity is defined as the ability of a property to convey its significance. The NRHP recognizes seven aspects of physical integrity for historic properties: setting, location, design, materials, workmanship, feeling, and association.

The building is significant under Criterion A at the local level for its role as the Recreation Hall in Mercury. However, because of alterations to the building as a result of the successful adaptation and repurposing of the building into an office and training facility in the 1980s, integrity of design, materials, and feeling have been severely compromised. The building is no longer able to convey sufficient integrity as a Recreation Hall. Although the distinctive front entrance remains intact, much of the interior design has been substantially altered and there is little of the interior intact that conveys its historic character as the Recreation Hall. Therefore, the building no longer conveys the feeling of a Recreation Hall and instead strongly exhibits its use as an office space during a later period of use that is not significant under a particular context or theme.

7. Narrative Architectural Description

Provide a detailed description of the resource, including all character defining features, potential construction methods, potential alterations (both historic and non-historic), and any accessory resources.

History and Evolution of 23-113

The Recreation Hall was one of several shiplap-sided demountable buildings constructed in 1952 by the Lembke, Clough, and King Construction Company. Constructed at a cost of $126,987.58, the original configuration of the building was U-shaped and had a western-facing courtyard covered by redwood louvres. The square footage of the building at the time was 6,701 feet (REECo 1955). The main entrance was in the southeast corner.

In 1963, the courtyard was enclosed and repurposed into a multipurpose room, a second set of double entryway doors was added, and a breezeblock wall was removed. This modification was intended to fulfill a need for the women in Mercury, who had been hesitant to use the building when the billiards tables and beer bar were busy. Relatively isolated from these activities, the room was accessed from the lounge and was an open space with an open-hearth fireplace. The space was intended to be used for relaxation, conversation, and quiet games such as checkers, chess, or bridge. Moffit and Hendricks designed the addition and Sierra Construction Company of Las Vegas built it (*NTS News* 1963).

In 1968, the interior of the Recreation Hall underwent modifications to accommodate the KNTS radio station. The station was housed in a 12-foot by 20-foot soundproof room in the northwest corner of a television viewing room in the lounge and contained a disc jockey desk, record cabinets, and electrical and radio equipment (*NTS News* 1968). Previously located in Warehouse 2, the radio station moved into the Recreation Hall to motivate personnel to spend more time in the building. The KNTS radio station, which operated 24 hours a day, broadcasted to the immediate area of Mercury. Rather than transmitting through antenna, the radio station used carrier current transmission through the local power lines. The radio station provided hourly news and broadcast music. In an NTS News article, the disc jockey noted the station played easy listening music standards, but no western or rock and roll records (*NTS News* 1967). The KNTS radio station's live broadcast was discontinued in 1970 because of recreation budget cuts.

In the early 1970s, the flat roof above the multipurpose area was upgraded with built-up roofing and the wood shiplap siding on the exterior of the building was replaced with aluminum siding. During the 1970s and early 1980s, the recreational use of the building was in decline, and engineering drawings indicate the interior of the building was designed to function as an office space. In 1983, fixtures and duct work were removed, and a new concrete ramp was installed outside the building. Interior spaces were re-designed to function as a REECo mail and records supply room, offices, and a training area. More changes were made the next year to accommodate a typewriter shop in the lobby near the main entrance of the building. The building continued to function in this capacity until the end of the Cold War in 1992. The building is still operational today and is used for training purposes and office space.

Current Description

Building 23-113 is currently a one-story rectangular plan building on a concrete slab foundation. The building is street level on its northeast end, but because the natural topography of Mercury slopes to the southwest, the western portion of the building is elevated on a large alluvium berm covered with gravel.

The original main block of the building and the former wings have different roof configurations. The roof of the main block is gable-on-hip, and the two wings have hip roofs, whereas the now-enclosed courtyard is covered by a mostly flat roof. The fascia around the whole building is metal, and the built-up roof has a reflective white coating. The

building retains the original wood-framed, six-over-six, double-hung windows on the north and south elevations, except for the window immediately to the right of the main entrance. The windows are often arranged in groups as described in further detail below.

The main entry to the building is by way of a concrete porch inset into the southeast corner. The roof of this entryway is supported by three wood columns at the southeast corner. The main entry doors consist of a set of three-light doors with three-light side-lights, which are original to the building. To the east of the entrance is a single window, the top of which has been covered with a metal covering. To the west of this entrance, the remaining portion of the south elevation has two triple windows and a single window.

The east elevation of the building has a concrete ramp on the south end (upgraded from stairs in 1983) to access the main entrance and another metal door with a single square light at the north end. The roof is extended over the north door to form a hood over the entryway. Along the top of this elevation, just under the soffit, is a length of gypsum panel covered clerestory windows (visible in historical photographs, see page 34). HVAC ducting covers part of this elevation and runs to the roof.

The north elevation has two doors. One door is metal with a single, square light and the other is solid metal. This elevation also has two triple windows, two single windows, and a steel ladder for roof access. The single-light door has a hood like the one on the east elevation. Two of the windows appear to have original glass panes.

On the west elevation, glulam rafter tails are exposed where the courtyard was enclosed in the 1960s. Gypsum board painted to resemble the rest of the building is between the rafter tails. A pair of fully glazed metal doors, accessible by a concrete walkway and the set of stairs is in the center of this elevation. A second set of adjacent double doors, two other doors, and two windows were removed and covered with aluminum siding in 2002. An electrical panel (installed sometime after 1992) is just left of the double-door entryway.

Alterations in the 1980s and 2000s transformed the interior of the building from its original configuration as a recreational space to office and training space and that is what it remains today. Workstation cubicles are located along the eastern and southern walls of the interior, fully replacing the refreshment areas and original lounge area, and an equipment/break room now occupies the southwest corner of the building. The western portion of the building—which contained the game room, enclosed courtyard, and lounge—were converted into large work areas by tearing down several load-bearing walls, adding several new walls, removing the fireplace, and installing reinforced steel beams and columns. These areas now serve as two large training classrooms. Multiple walls were constructed in the lobby to accommodate a copier room and the room that previously housed the radio station is now a conference room.

Because the building was repurposed, much of the interior no longer resembles what it looked like when it served as the Recreation Hall. Only a few reminders of its time as a recreation building remain, such as stuck-on roof tiles throughout the building; a doorway and a set of window frames that were originally part of the western entrance of the porch; and the enclosed courtyard's glulam rafter beams, now painted white, which are visible on the ceiling of the classrooms.

Alterations Summary

The design of Building 23-113 evolved throughout the period of significance in Mercury (1951 through 1992). The building first underwent substantial modifications in 1963, when the courtyard was fully enclosed, converting it to the present square plan and increasing its size from 6,701 to 10,234 square feet. The exterior of the Recreation Hall was modified in 1974, when the original wood shiplap was covered with insulated bevel aluminum siding and portions of the roof were upgraded. The building ceased to be used for recreation in 1980 after part of the Bowling Alley was converted to host other recreational activities. At that time, the Recreation Hall was reconfigured as office and training space for REECo personnel. Additional exterior and interior alterations took place outside the period of significance for Mercury in the early 2000s, such as the installation of new supports and improvements to the building's footings and ceiling, the removal of multiple exterior windows and doors that were then covered with siding, the reconfiguration of interior walls, and the removal of a fireplace.

9. References

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11. Photographs

INDEX TO DIGITAL IMAGES

BUILDING 23-113 DRI PROJECT NO. 223723
Nevada State Historic Preservation Officer Resources No. B15236
Mercury Historic District (D230)
Mercury, Area 23
Nevada National Security Site
Nye County, Nevada

Jeffrey Wedding (Desert Research Institute), Photographer, February 28, 2022

1 South elevation, facing north.

2 Oblique view of south and east elevations, showing main entrance, facing northwest.

3 Gypsum board covered ribbon window on east elevation, facing southwest.

4 Oblique view of east and north elevations, facing southwest.

5 North elevation, facing south.

6 West elevation, facing east.

7 Rafter detail on west elevation, facing southeast.

8 Oblique view of west and south elevations, facing northeast.

9 Main entrance, southwest corner, facing north.

10 Lobby, southeast corner of 23-113, facing north.

11 Lobby, southeast corner of 23-113, facing west.

12 Workstations in Room 13, facing south.

13 Workstations in Room 4, facing northwest.

14 Room 3 (former porch), facing north.

15 Room 3 (former porch), facing south.

16 Classroom 1, facing east.

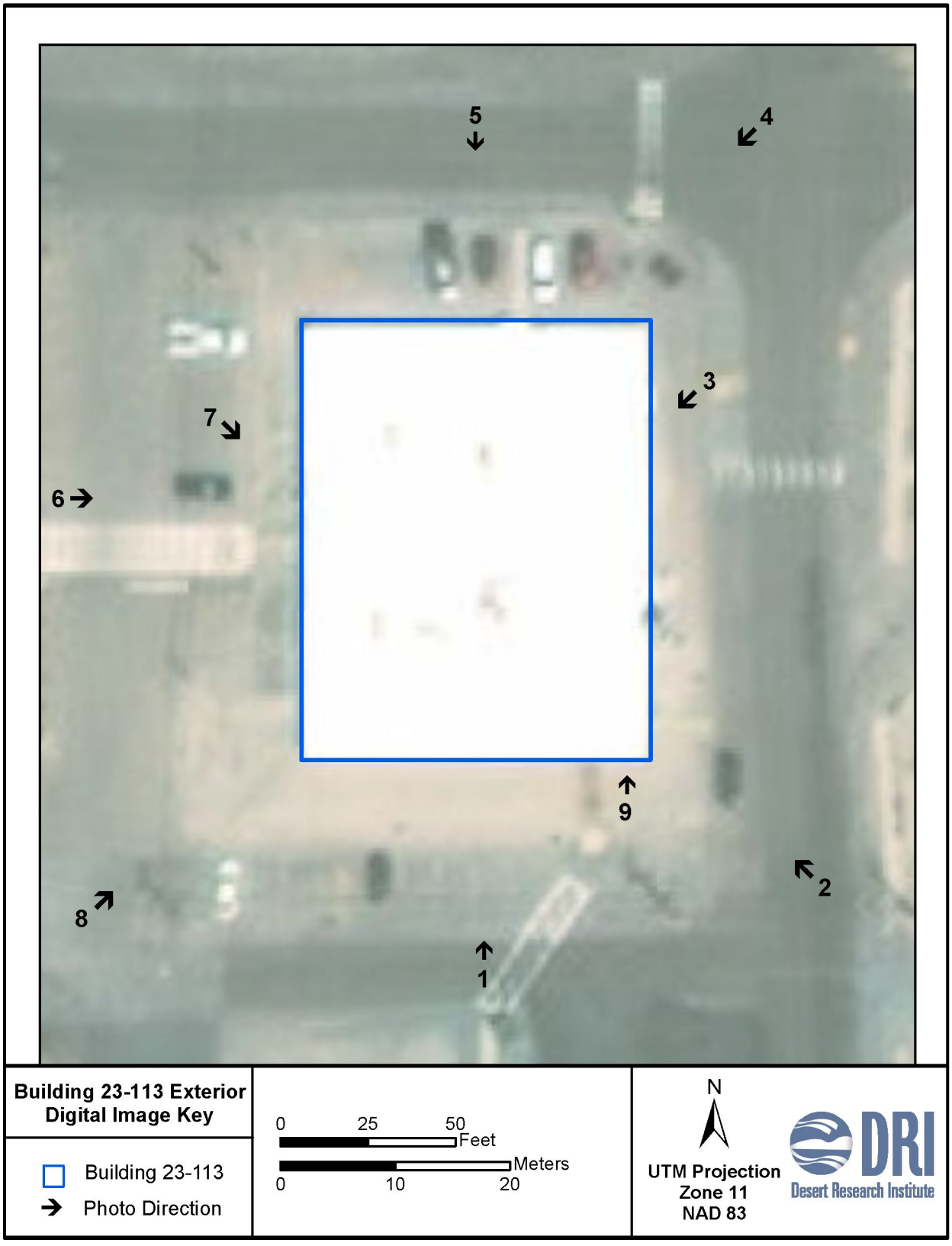
17 Classroom 2, facing southeast.

18 Workstations in Room 19, facing east.

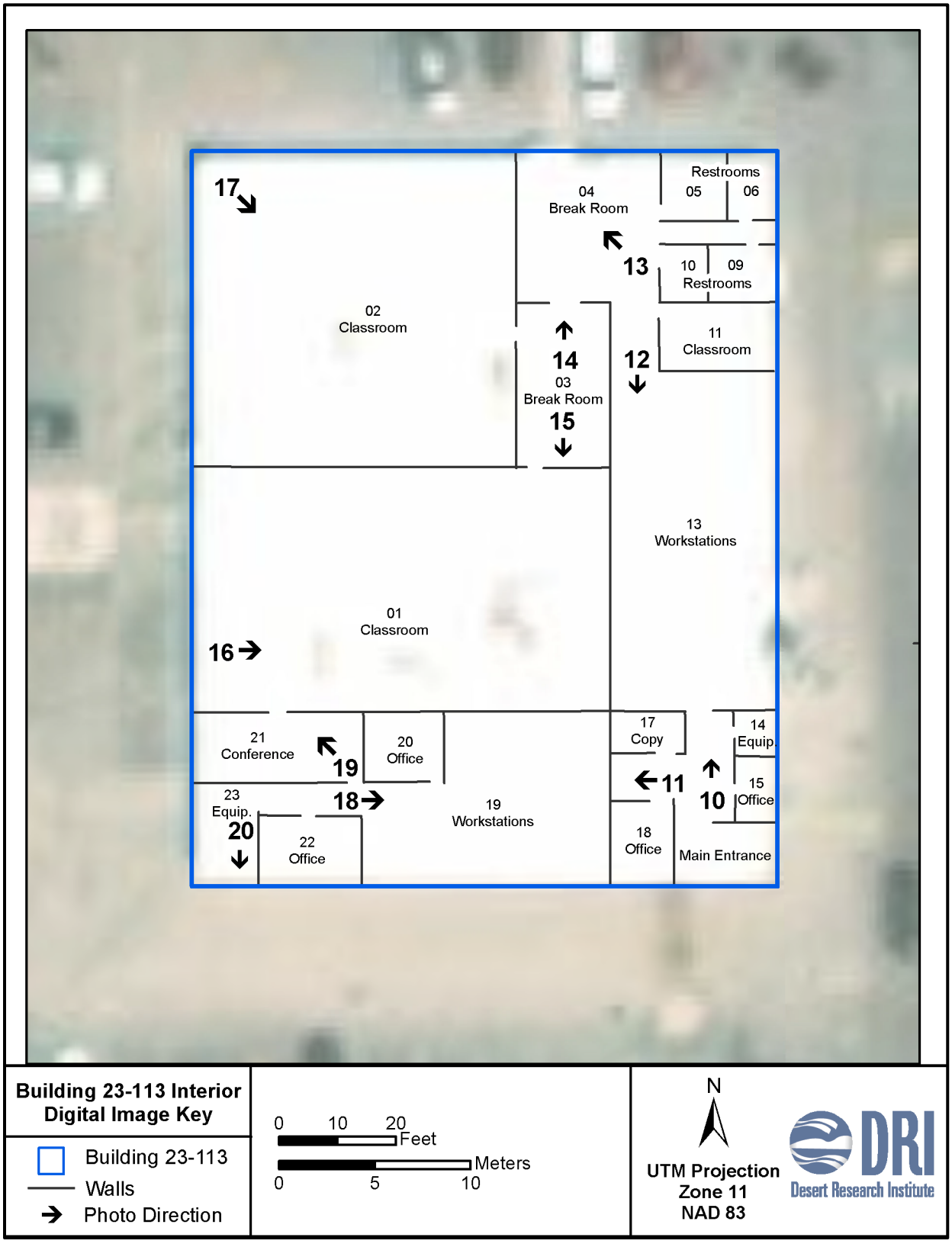
19 Room 21, conference room, facing northwest.

20 Window detail in Room 23, facing south.

DIGITAL IMAGE KEY PLAN (EXTERIOR).



DIGITAL IMAGE KEY PLAN (INTERIOR).



PHOTOGRAPH 1. SOUTH ELEVATION, FACING NORTH (2237_3534, DRI 2022).

PHOTOGRAPH 2. OBLIQUE VIEW OF SOUTH AND EAST ELEVATIONS, SHOWING MAIN ENTRANCE, FACING NORTHWEST (2237_3579, DRI 2022).

PHOTOGRAPH 3. GYPSUM BOARD COVERED RIBBON WINDOW ON EAST ELEVATION, FACING SOUTHWEST (2237_3583, DRI 2022).

PHOTOGRAPH 4. OBLIQUE VIEW OF EAST AND NORTH ELEVATIONS, FACING SOUTH-SOUTHWEST (2237_3584, DRI 2022).

PHOTOGRAPH 5. NORTH ELEVATION, FACING SOUTH (2237_3587, DRI 2022).

PHOTOGRAPH 6. WEST ELEVATION, FACING EAST (2237_3595, DRI 2022).

PHOTOGRAPH 7. RAFTER DETAIL ON WEST ELEVATION, FACING SOUTHEAST (2237_3598, DRI 2022).

PHOTOGRAPH 8. OBLIQUE VIEW OF WEST AND SOUTH ELEVATIONS, FACING NORTHEAST (2237_3603, DRI 2022).

PHOTOGRAPH 9. MAIN ENTRANCE, SOUTHEAST CORNER, FACING NORTH (2237_3536, DRI 2022).

PHOTOGRAPH 10. LOBBY, SOUTHEAST CORNER OF 23-113, FACING NORTH (2237_3559, DRI 2022).

PHOTOGRAPH 11. LOBBY, SOUTHEAST CORNER OF 23-113, FACING WEST (2237_3561, DRI 2022).

PHOTOGRAPH 12. WORKSTATIONS IN ROOM 13, FACING SOUTH (2237_3555, DRI 2022).

PHOTOGRAPH 13. WORKSTATIONS IN ROOM 4, FACING NORTHWEST (2237_3550, DRI 2022).

PHOTOGRAPH 14. ROOM 3 (FORMER PORCH), FACING NORTH (2237_3548, DRI 2022).

PHOTOGRAPH 15. ROOM 3 (FORMER PORCH), FACING SOUTH (2237_3547, DRI 2022).

PHOTOGRAPH 16. CLASSROOM 1, FACING EAST (2237_3577, DRI 2022).

PHOTOGRAPH 17. CLASSROOM 2, FACING SOUTHEAST (2237_3542, DRI 2022).

PHOTOGRAPH 18. WORKSTATIONS IN ROOM 19, FACING EAST (2237_3564, DRI 2022).

PHOTOGRAPH 19. ROOM 21, CONFERENCE ROOM, FACING NORTHWEST (2237_3567, DRI 2022).

PHOTOGRAPH 20. WINDOW DETAIL IN ROOM 23, FACING SOUTH (2237_3570, DRI 2022).

HISTORIC PHOTOGRAPHS

Recreation Hall in 1952, soon after completion.
Elevations: South, East Direction facing: North Photographer: AEC Date: 1952

Recreation Hall in 1955.
Elevations: South, East Direction facing: North Photographer: REECo Date: 1955

Billiards tables in Recreation Hall.
Elevation: N/A Direction facing: N/A Photographer: REECo Date: 8/1/1961

Lounge in Recreation Hall.
Elevation: N/A Direction facing: N/A Photographer: REECo Date: 8/1/1961

Library in Recreation Hall.
Elevation: N/A Direction facing: N/A Photographer: REECo Date: 8/1/1961

Table tennis in Recreation Hall.
Elevation: N/A Direction facing: N/A Photographer: REECo Date: 4/2/1962

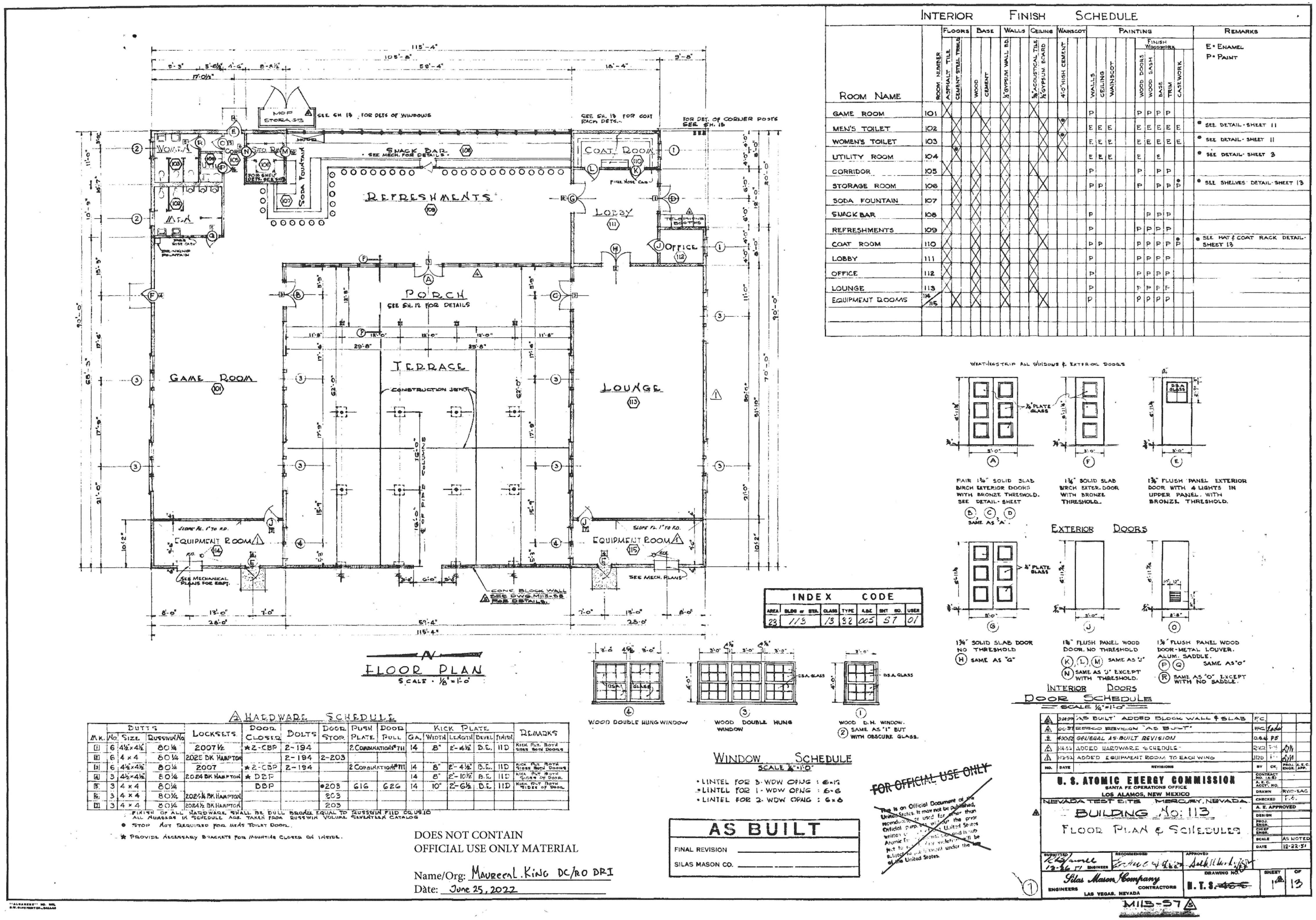
Ray Saunders (Assistant Project Manager), Bill Boris (Superintendent of Feeding) and Betty Screll (Executive Secretary) overlooking Recreation Hall modifications to covered courtyard.
Elevation: N/A Direction facing: Northeast Photographer: REECo Date: 3/21/1963

Recreation Hall modifications in 1963 (frame 1673-8).
Elevation: West Direction facing: East Photographer: REECo Date: 7/31/1963

Recreation Hall after modifications were completed.
Elevation: West and North Direction facing: Northeast Photographer: REECo Date: 11/25/1964

Recreation Hall, October 14, 1992.
Elevation: West. South Direction facing: Northeast Photographer: RSL Date: 1992

13. Engineering Drawings



Building 23-113 floor plan and schedules. Drawing No. N.T.S. M113-S7. Drawn December 22, 1951.

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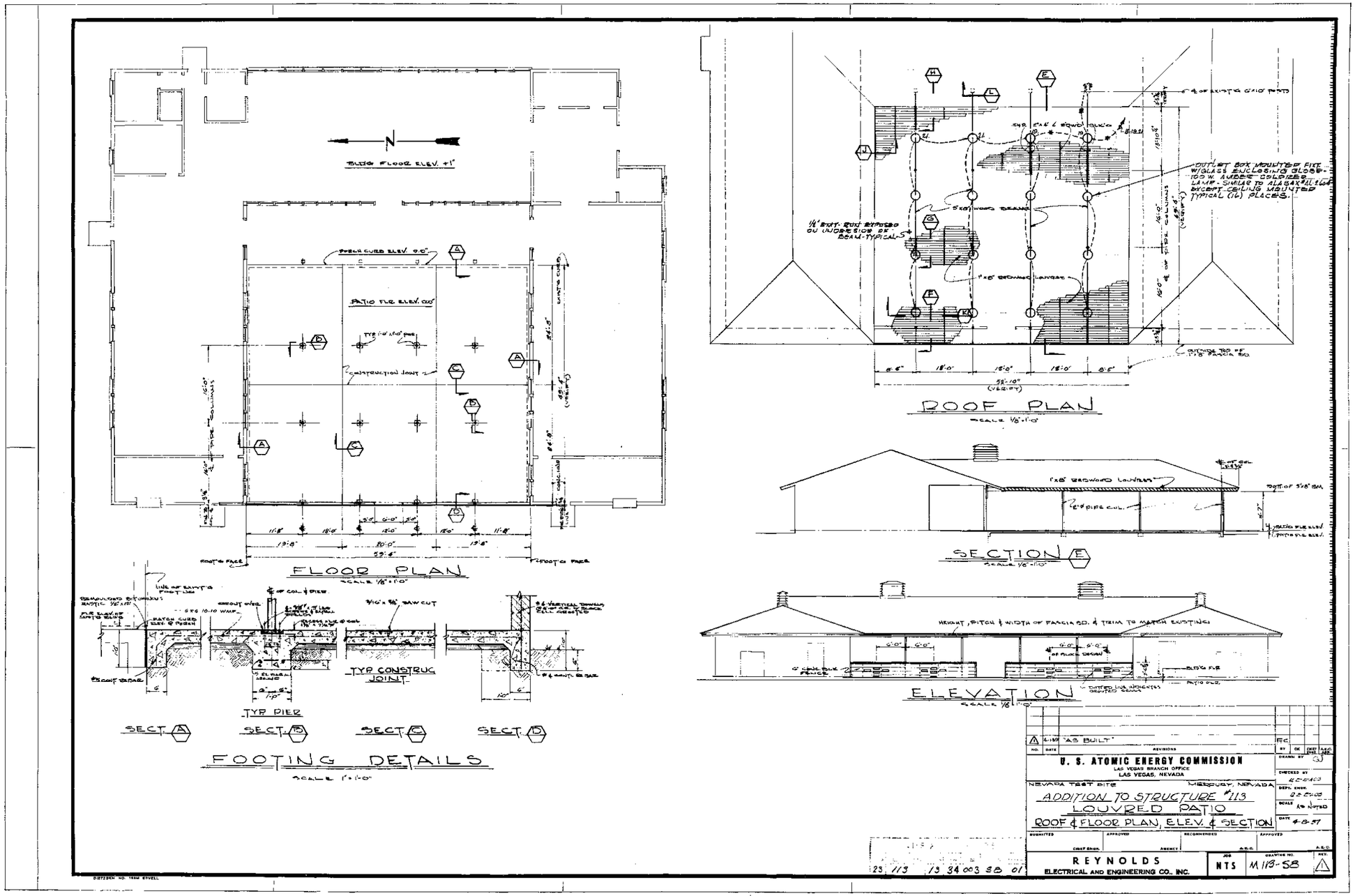

Addition to louvered patio. Roof and floorplan, elevations, and sections. Drawing No. NTS M113-S1. Drawn April 8, 1957.

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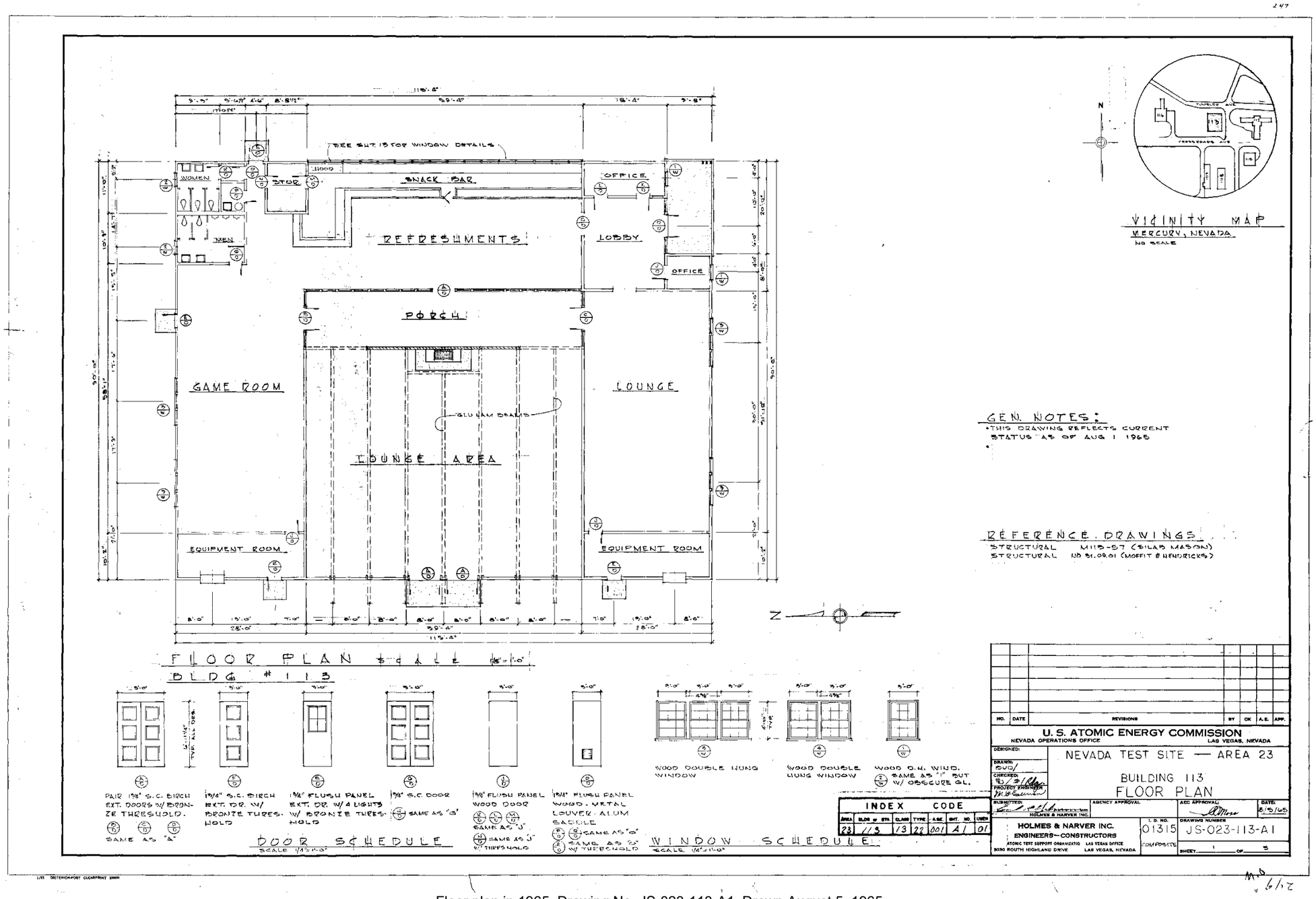

Floor plan in 1965. Drawing No. JS-023-113-A1. Drawn August 5, 1965.

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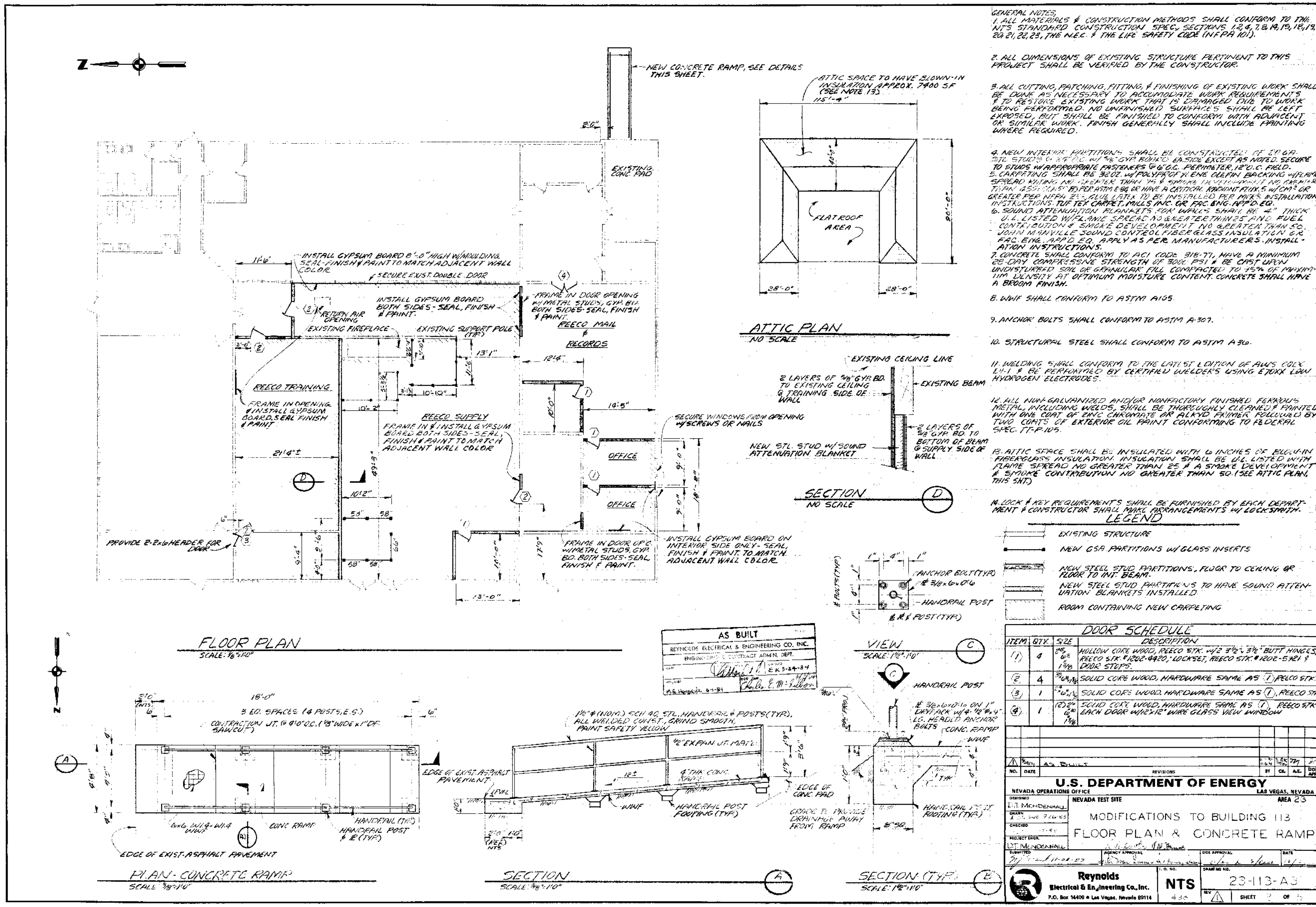

Modifications to Building 23-113. Drawing No. 23-113-A3. As-built notation of May 24, 1984.

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Selection of additional drawings related to the Building 23-113 available from the Nuclear Testing Archive in Las Vegas, Nevada.

Index No.	Year	Drawing No.	Title
33327	1951	M 0113 S3.1	TYPICAL TRUSSED RAFTERS & DETAILS
33329	1951	M 0113 S4.1	WALL SECTIONS & DETAILS
33330	1951	M 0113 S5.2	WALL SECTIONS & DETAILS
33331	1951	M 0113 S6.5	ELEVATIONS
33325	1952	M 0113 S1.4	FOUNDATION PLAN & DETAILS
33326	1952	M 0113 S2.4	ROOF FRAMING PLAN & DETAILS
33334	1957	M 0113 S9.1	ADDITION - LOUVRED PATIO - SECTION & DETAILS
32008	1963	NV 31 09 01 A1	MODIFICATIONS - FLOOR PLAN AND FOUNDATION PLAN
32009	1963	NV 31 09 01 A2	MODIFICATIONS - ROOF FRAMING AND DETAILS
32010	1963	NV 31 09 01 A3	MODIFICATIONS - ELEVATIONS
32011	1963	NV 31 09 01 A4	MODIFICATIONS - SECTIONS AND DETAILS
32012	1963	NV 31 09 01 A5	MODIFICATIONS - DETAILS
33335	1963	NV 31 09 01 A1.1	MODIFICATIONS - FLOOR PLAN AND FOUNDATION PLAN
33336	1963	NV 31 09 01 A2.1	MODIFICATIONS - ROOF FRAMING AND DETAILS
33337	1963	NV 31 09 01 A3.1	MODIFICATIONS - ELEVATIONS
33338	1963	NV 31 09 01 A4.1	MODIFICATIONS - SECTIONS AND DETAILS
33339	1963	NV 31 09 01 A5.1	MODIFICATIONS - DETAILS
33349	1968	23 113 S1.1	KNTS RADIO STATION - VICINITY MAP, PLAN & SECTION
33350	1968	23 113 S2.1	KNTS RADIO STATION - DETAILS
33345	1972	23 113 S4	RE-ROOFING OF PATIO AREA - PLAN, SECTION & DETAIL
60326	1972	NO NUMBER	1972 BLDG 113 PROPOSED HEATING CHANGES
63336	1972	23 113 S3	RE-ROOFING OF PATIO AREA - PLANS & NOTES
63337	1972	23 113 S4	RE-ROOFING OF PATIO AREA - PLAN, SECTION & DETAIL
132395	1983	23 113 A2.1	MODIFICATIONS - DEMOLITION PLAN
132397	1983	23 113 M2.1	MODIFICATIONS - MECHANICAL PLAN & SECTION
132398	1983	23 113 E2.1	MODIFICATIONS - POWER PLAN
132399	1984	23 113 E3.1	MODIFICATIONS - LIGHTING PLAN
211829	1988	23 113 A6.1	EMPLOYEE ASSISTANCE PROGRAM OFFICE - DEMOLITION & FLOOR PLAN
222450	1984	23 113 A5.1	TYPEWRITER REPAIR SHOP - DEMOLITION & FLOOR PLAN
223317	1994	NO NUMBER	FLOOR PLAN

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SHPO Resource #: B15236 Rev. 2017
Other Resource #: 23-113 Recreation Center

NEVADA STATE HISTORIC PRESERVATION OFFICE

Architectural Resource Assessment (ARA) Form

For SHPO Use Only	SHPO Concurrence?: Y / N		Date:		
Survey Date	June 21, 2017	Recorded By	Reno, Menocal, Shimer	Agency Report #	TR 115

1. Property Type

Building ☒	Structure ☐	Object ☐	Landscape (non-archaeological site) ☐

2. Property Overview and Location

Street Address	NNSS Area 23, Block 7, Ranger – Buster		
City, Zip	Mercury, 89023		
County	Nye		
Assessor's Parcel #	N/A	Subdivision Name	N/A
UTM Location (NAD 83, UTM Zone 11 North)	Easting: 589732		Northing: 4057855
USGS Info	Township: 15S	Range: 53E	Section: 11	USGS 7.5' Quad & Date: Mercury, Nev. 1983
Ownership	Private ☐	Public-Local ☐	Public-State ☐	Restricted-Federal ☒	Multiple ☐
Should the property's location be kept confidential?	Yes ☐	No ☒		

3. Architectural Information

(Insert primary photograph below.)

Construction Date	1952
Architectural Style	Demountable
Architectural Type	Wood Frame
Roof Form	Hip, Gable-on-hip
Roof Materials	Composition
Exterior Wall Materials	Wood Frame
Foundation Materials	Concrete
Window Materials	Wood
Window Type	6/6 Double-hung
Accessory Resources?	Yes ☐ No ☒
	Number?:

Building 23-113, view northwest (2017).

Condition of Resource(s)?		
Good ☒	Fair ☐	Poor ☐
Explanation: Maintained in use. Needs carpet, paint, plumbing, and HVAC replaced.		

4. Existing Listing & Potential District

Is the property listed in the National Register?	Yes ☐	No ☒	If yes, provide:	Date Listed:
				NRIS #:

Contributing to a listed historic district?	Yes ☐	No ☒	If yes, provide:	Name:	NRIS #:
				Date listed:	

If no, is there a potential district?	Yes ☒	No ☐	If so, is this resource contributing?	Yes ☒	No ☐
District Name: Mercury Historic District				SHPO #: D230	

5. NRHP Evaluation

If not already listed, complete the information below:

Eligible Under:	Criterion A ☐	Criterion B ☐	Criterion C ☐	Criterion D ☐
	Not Eligible ☐	Unevaluated ☐		
Area(s) of Significance	Nuclear Testing, Townsite Development			
Period of Significance	1952-1992			

Integrity – Does the resource possess integrity in all or some of the 7 aspects?						
Location ☒	Design ☒	Materials ☒	Workmanship ☒	Setting ☒	Feeling ☒	Association ☒

General Integrity:	Intact ☐	Altered ☒	Moved ☐	Date(s): 1963, 1974

Threats to Resource:	Redevelopment
Historic Name	Recreation Hall
Current/Common Name	NSTec Training
Historic/Original Owner	U.S. Atomic Energy Commission
Current Owner	U.S. Department of Energy Nevada National Security Administration Nevada Field Office
Current Owner Address	Nevada National Security Site
Historic Building Use	Recreation Hall
Current Building Use	Office
Architect/Engineer/Designer	Orig.: Holmes & Narver, Inc.; Courtyard: Enclosure: Moffitt and Hendricks Architects
Builder/Contractor	Lembke Construction Co. and Clough and King Construction Co.

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6. Narrative Eligibility Justification

Provide a detailed explanation of the resource's eligibility for the National Register, including supporting historic information, methods for evaluation under the four criteria, discussion of the seven aspects of integrity, and conclusions about eligibility.

For purposes of the present survey, the resources in Mercury were evaluated only as they relate to the Historic District as a contributing versus non-contributing element. It is the nature of most of the individual elements of the district that they would not be individually eligible, but rather that, in the aggregate, they combine to create the unique significance of the district as a whole, which is presently recommended eligible to the National Register under Criteria A and C and unevaluated under Criteria B and D as detailed in the District form.

Since so many elements of the district have already been lost, those remaining elements from the period of significance have more comparative importance than they would have had otherwise. They are now in many cases rare survivors of what were formerly fairly common property types at Mercury. With this in mind, the requirements for being considered contributing elements to the district are fairly low. If a resource still retains visible elements which date to the period of significance, it is considered contributing to the significance of the district both for its historic importance in relation to nuclear testing under Criterion A and as a part of the distinctive design and construction of the district under Criterion C. The companion question asked was if that resource was to be removed would the district lose some of its overall significance. In nearly all cases there is sufficient integrity to answer this question in the affirmative.

Due to the extensive resource-level of research beyond the capabilities of the present survey, including recording and evaluations of building interiors, required to make justifiable recommendations regarding eligibility related to association with significant persons under Criterion B or potential research potential under Criterion D, this resource remains unevaluated under these criteria at this time. It is anticipated that such enhanced recording and evaluation will occur in the future as redevelopment plans mature.

This building served as a support facility in Mercury for nuclear testing throughout much of the Cold War. It was the principal recreation facility through the early years of the installation when amenities were minimal. It is an example of successful adaptation and repurposing of an historic building and continues to be used as a training facility. It is a rare surviving example of the first generation of wood buildings at Mercury. Since most of the alterations to it took place during the period of significance, it retains a high degree of all aspects of integrity. Changes that somewhat diminish its integrity are the large HVAC system and replacement of the secondary doors. Fortunately the distinctive front entrance remains intact, protected under a porch.

7. Narrative Architectural Description

Provide a detailed description of the resource, including all character defining features, potential construction methods, potential alterations (both historic and non-historic), and any accessory resources.

The Recreation Hall is a one-story wood-frame building on a concrete slab foundation. Originally it had a U-shaped plan. The front (east) section was 115 by 28 ft. while each wing was 62 by 28 ft. The courtyard was enclosed in 1963, converting it to the present square plan -- increasing its size from 6,692 to 10,234 square feet. It ceased being used for recreation in 1980 with conversion of part of the Bowling Alley for this purpose. After a period of disuse it was reconfigured as office and training space.

Parking at the upper (northeast) end of the building is at street level, at the intersection of Tumbler Avenue and Snapper Street. From this point the building is on a large fill. Since the natural surface in this part of Mercury slopes rather steeply to the southwest the resulting pedestal for the downhill corner of the Recreation Hall is quite imposing, as shown in an attached photo (page 8). The berm is natural alluvium which has been covered with gravel in places.

Access up the berm to the main entrance and to the west side of the building is via concrete staircases with pipe railings. A handicap ramp of the same materials accesses the main entrance from the east. Additional off-street parking is provided by widening of Buster Street to the west and Crossroad Avenue to the south.

Siding was originally wood shiplap (REECo 1955). This was covered in 1974 with insulated bevel aluminum siding.

The building retains most of its original wood-framed 6/6 double-hung windows. Replacement doors are flush metal.

The main entry to the building is via a concrete porch inset into the southeast corner. The roof is supported by three wood columns at the corner. The south-facing doorway leads into the main block. It has double wood-framed doors with three lights bordered by three-light sidelights. A window is set in the wall to the right of the door.

The east façade of the main block has the main entry at the left end and another door at the right end. The roof is extended over the door to form a hood over a small concrete stoop. A narrow ribbon of horizontal windows runs nearly the full length of the wall just under the soffit. These windows have been covered with plywood. A large HVAC unit is mounted in front of the wall with a large duct running onto the roof.

West of the entrance, the south elevation has two ribbons of three windows each and a single window left of the entry.

The north elevation has two doors, two triple windows, two single windows, and a steel ladder for roof access. The door has a hood similar to the one on the east façade.

The west elevation at the rear of the building has central double metal-framed glass doors. The other window and door openings were covered with matching siding after 1992. A concrete sidewalk and stoops are in front of the old doorways. Large glue-lam rafter tails are exposed in the courtyard addition. Plywood blocking between the beams may cover windows.

The roof of the main block is gable-on-hip. The two wings have hip roofs and the courtyard is covered by a shed roof. Overhangs are wide with enclosed metal soffits. The fascia is also metal. Originally composition, the roof now has a reflective coating. It has rectangular vents on the ridgeline.

There are no Accessory Resources.

8. References

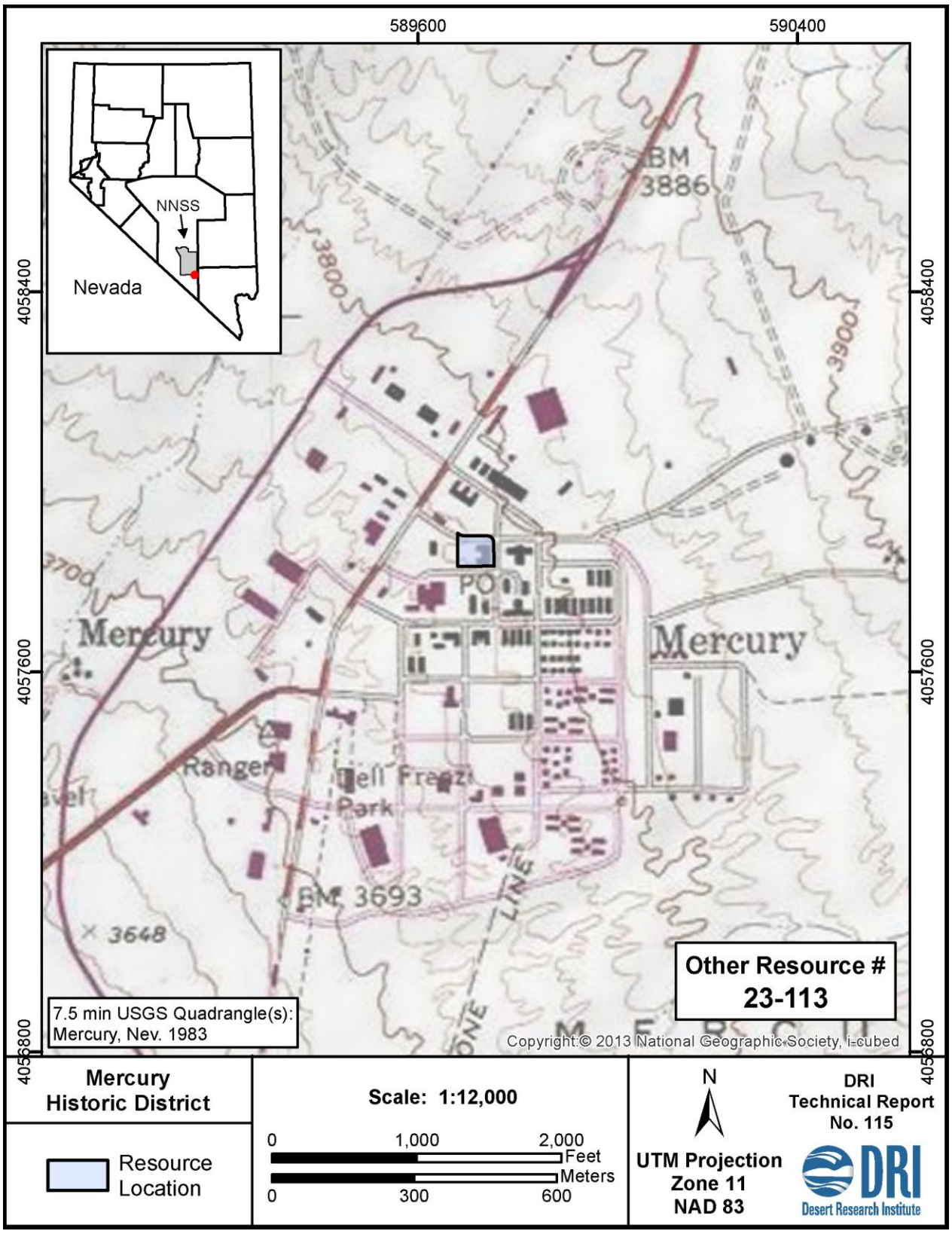
List references used to research and evaluate the individual property.

Moffitt and Hendricks Architects
1963 Modification of Building 113. Drawing NV-31-03-01.1.

Reynolds Electrical & Engineering Co. Inc. (REECo)
1955 Report on Existing Facilities at the Nevada Test Site for the United States Atomic Energy Commission.

9. Area Location Map

Use a USGS quadrangle map at large extent to show general area of resource.



10. Site Plan Map

Use aerial imagery, drafting software, or a hand-drawn sketch (to scale) showing, at minimum, building/structure footprints and relationship to associated features. Attach extra maps if needed.

11. Photographs

Include as many photographs as needed to accurately depict the resource.

Elevation: South Direction facing: North Photographer: Menocal Date: 6/21/2017

Elevation: North, West Direction facing: Southeast Photographer: Menocal Date: 6/21/2017

Elevation: South, West Direction facing: Northeast Photographer: Menocal Date: 06/21/2017

Elevation: South, West Direction facing: Northeast Photographer: REECo Date: 1955