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DESERT RESEARCH INSTITUTE
CULTURAL RESOURCES REPORT SR052422-3
PROJECT NO. 2211023

EVALUATION OF BUILDING 23-620, LOS ALAMOS SCIENTIFIC LABORATORY J-3 OFFICE, NEVADA NATIONAL SECURITY SITE, NYE COUNTY, NEVADA

Prepared by

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September 2022

Nevada System of Higher Education

Cover Photograph: Building 23-620, facing southeast (DRI 22110_3933).

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EVALUATION OF BUILDING 23-620, LOS ALAMOS SCIENTIFIC LABORATORY J-3 OFFICE, NEVADA NATIONAL SECURITY SITE, NYE COUNTY, NEVADA

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Prepared for

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National Nuclear Security Administration
Nevada Field Office, Las Vegas, Nevada

Submitted by

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September 2022

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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 23-620, the Los Alamos Scientific Laboratory (LASL) J-3 Office Building (Nevada State Historic Preservation Office [SHPO] Resource No. B15283) at the Nevada National Security Site (NNSS) in Nye County, Nevada. The NNSA/NFO is implementing a long-term project to modernize the town of Mercury 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* (Mercury PA). The Mercury PA includes streamlined Section 106 procedures for undertakings in the MHD based on contributing element categories. Building 23-620 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. The purpose of this report is to evaluate Building 23-620 as a potential individually eligible historic property in fulfillment of Stipulation VI of the Mercury PA. The evaluation detailed herein concludes that Building 23-620 is not individually eligible for listing in the NRHP. Although it retains aspects of integrity and continues to contribute to the MHD, it is not individually significant under any of the SOI Significance Criteria.

ACKNOWLEDGEMENTS

Martha DeMarre, Archivist at DRI, contributed to the historical research. Tatianna Menocal, Archaeologist, assisted with fieldwork and photography. The historic context sections herein include revised versions of earlier work by Ron Reno, Architectural Historian and Archaeologist, and Maureen King, Archaeologist at DRI.

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.

Qualifications for the preparers of this report are provided in the Preparers' Qualifications section at the end of the document.

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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 23-620, the Los Alamos Scientific Laboratory (LASL) J-3 Office Building, at the Nevada National Security Site (NNSS) in Nye County, Nevada (see Figure 1 and Figure 2) in support of their long-term project to modernize the town of Mercury. The building 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 the Mercury PA) and Appendix C of the Mercury PA. Accordingly, Building 23-620 is considered a historic property for the purposes of Section 106 of the National Historic Preservation Act (NHPA).

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. The purpose of this report is to evaluate Building 23-620 for potential individual NRHP eligibility in fulfillment of Stipulation VI.

Figure 1. Project location in Mercury, Nevada National Security Site (NNSA/NFO 2017).

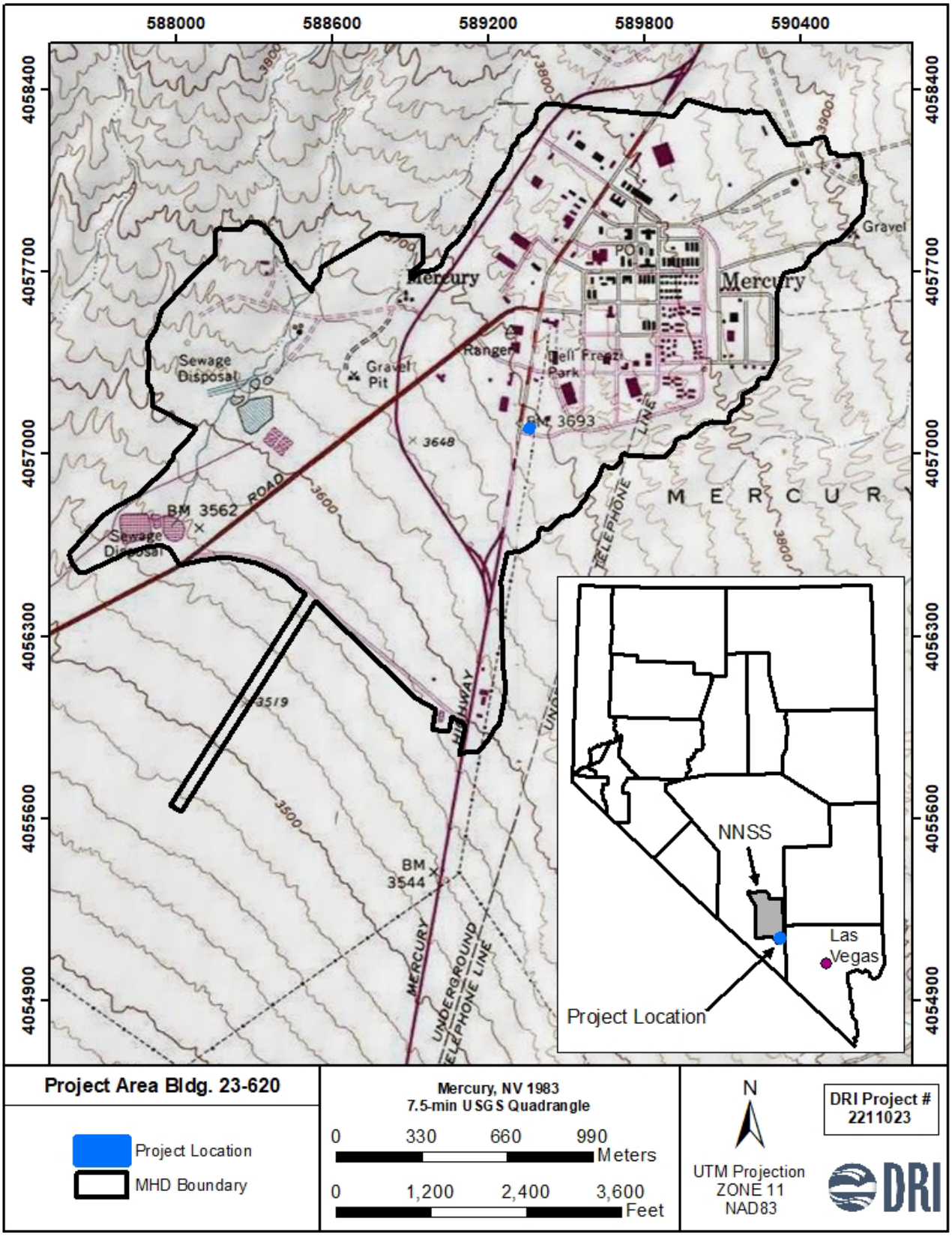

Figure 2. Project location within the MHD boundary.

II. RESEARCH DESIGN

Objectives

The purpose of this architectural resource evaluation is to comply with the requirements of Section 106 of the NHPA of 1966, as amended, for the NNSA/NFO to manage historic properties under its jurisdiction. Specifically, this report complies with the Mercury PA.

Area of Potential Effect

The NNSA/NFO delineated the APE using the metrics of Stipulation II of the Mercury PA. For direct effects, such as physical demolition and equipment staging, the APE includes the footprint of Building 23-620 and a 25-foot-wide perimeter around the footprint (Figure 3). For indirect effects, such as visual, atmospheric, and audible effects, the boundary of the MHD is used per Stipulation II.B (Figure 2). For cumulative effects and new construction (Stipulations II.C and II.D), the APE for cumulative effects is the same as for indirect effects.

Figure 3. Direct effects area for the undertaking.

Element Category Identification

The Mercury PA identifies Building 23-620 as a Category I property. Category I properties are those that may be unique to the MHD or that have only one representative in the MHD, and might be individually eligible for listing in the NRHP. Building 23-620 was the only office building in Mercury constructed with this design; therefore, it is considered a Category I property.

Methods

Research, fieldwork, updates to the original Nevada Architectural Resource Assessment (ARA) form for Building 23-620, 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, the LASL J-3 Office Building is identified as 23-620 because it is located in Area 23. The prefix is followed by a unique identifying number or combination of letters and numbers ("620" for the subject resource). 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 23-620 was initially surveyed and recorded on an ARA form 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 23-620 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 or not Building 23-620 contributed to the historic district. Additional research conducted for this report to properly evaluate Building 23-620 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.

Nicole Brannan conducted fieldwork on May 24, 2022, to update the previous description of Building 23-620 and to document the interior, which had not been included in the MHD survey. Ms. Brannan took the digital photographs and Tatianna Menocal, archaeologist, assisted with notetaking and the photography log.

Following the research and fieldwork tasks, appropriate historic contexts were compiled to facilitate a detailed NRHP evaluation of Building 23-620 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 23-620 completed for the current undertaking are provided in this report. The ARA form for the building will be updated as part of mitigation for the undertaking in accordance with the Mercury PA following consultation with the SHPO on the findings in this individual NRHP evaluation report.

III. HISTORIC CONTEXT

The following historic context presents contexts and themes related to Building 23-620 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. The relevant theme is the Work of LASL/LANL on the NNSS. Information pertaining to the architect and builder of Building 23-620 is also provided herein to support the evaluation of the building under NRHP Significance Criterion C. 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 23-620 is located in the town of Mercury, on Mercury Highway, approximately four miles from U.S. Route 95. 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 further 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 23-620 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 1950-51 to Nevada Proving Ground in 1952 and back to NTS in January 1955 (AEC 1952). Its name remained NTS for the rest of the Cold War. The facility was renamed 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 below ground. 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 2000:36). 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 LASL (which later became the Los Alamos National Laboratory [LANL] in 1980) 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 LASL 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 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 2013). The AEC expanded the base camp, adding more barracks, a second mess hall, a recreational facility, a warehouse, offices, and laboratory space (Fehner and Gosling 2000).

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 Nuclear Rocket Development Station (NRDS) brought increased activity to the site (Fehner and Gosling 2000:83; NNSA/NFO 2013). 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 2013). By June, the AEC contracted Arthur Benedict Associates (ABA) 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 and office buildings, laboratories, maintenance shops, warehouses, communications, and the Civil Effects Test Organization building, resident-oriented facilities such as the dormitories, recreation hall, swimming pool, bowling alley, chapel, and health, medical, and safety building, circulation facilities like the Camp Desert Rock airstrip, U.S. 95 improvements, the Mercury Bypass, and primary and secondary streets, and utilities, a new power transmission line and sewage treatment plant (Figure 4).

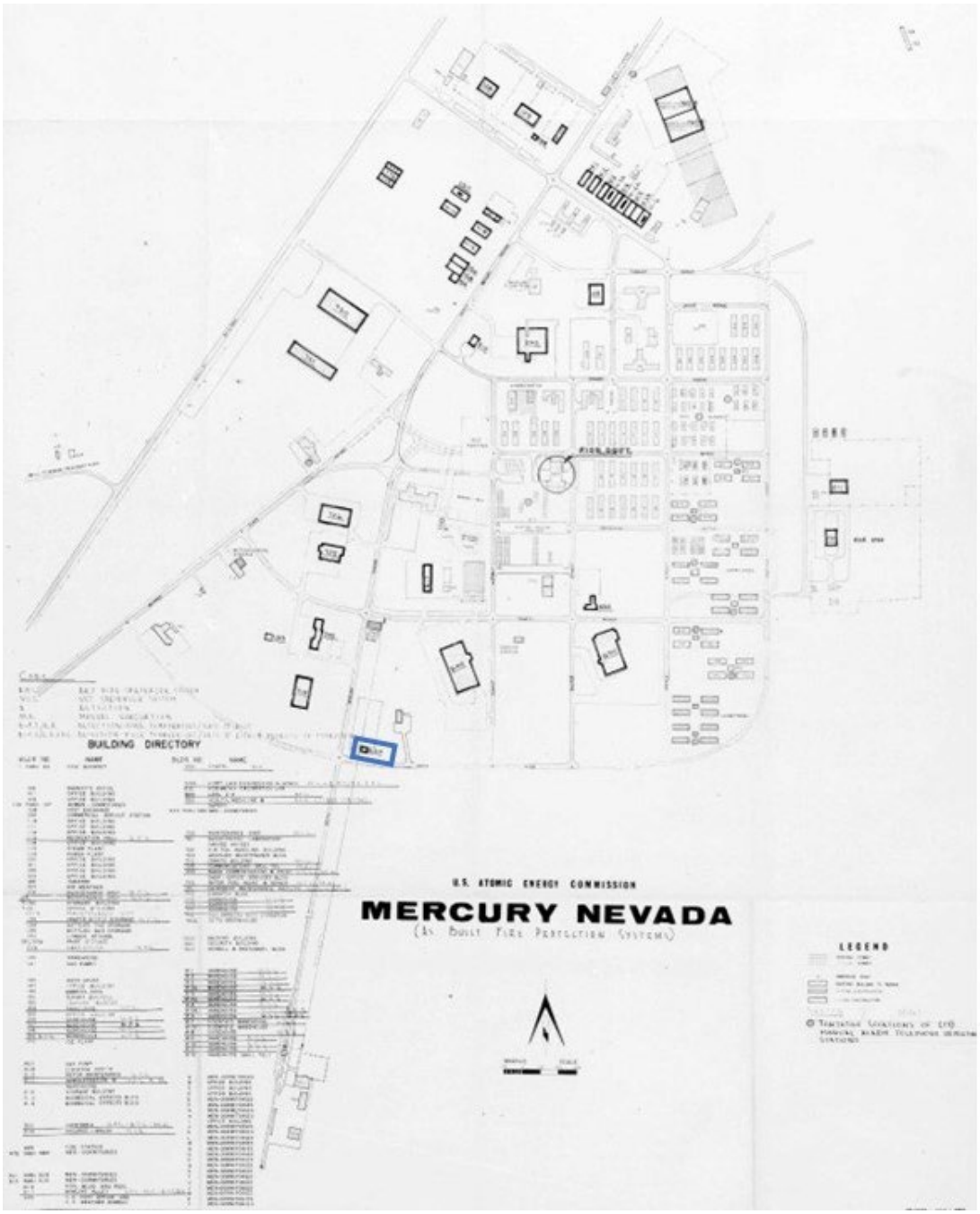

Figure 4. Location of Building 23-620 under construction, 1968 (best available copy) (AEC 1969).

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 remained in use until 1992 and beyond, including Building 23-620.

After 1992, the DOE began conducting subcritical experiments at the NNSS 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.

Building 23-620 was constructed in 1969 and fits within the 1951-1992 period of significance for the NNSS and is associated with the Cold War-era nuclear testing. Designed by Ben Beckler and Associates and constructed by Holmes & Narver, Building 23-620 was used as an office building for the LASL/LANL from its construction in 1968 until at least 1990 when it was used by REECo as a maintenance facility and eventually in 2004, as the Real Estate Services office building.

The Work of LASL/LANL on the NNSS

The LASL was established in 1947 as part of the AEC after nuclear weapons were used to end WWII (NNSA/NFO 2015; Reno et al. 2018). The AEC took over the research and production facilities built by the Manhattan Engineer District during WWII and these facilities became the LASL (Reno et al. 2018). The LASL, along with other laboratories such as the Lawrence Radiation Laboratory (now Lawrence Livermore National Laboratory), were involved in the development and construction of nuclear technology used for testing on the NNSS. The work by LASL on NNSS began in 1951 with the testing of nuclear weapons, both for atmospheric and underground tests.

Between 1951 and 1992 there were 1,021 nuclear detonations among 928 tests on the NNSS. During this time period, the LASL was the sponsor of 487 of these tests, some in conjunction with the Department of Defense, joint tests with the United Kingdom, and the Sandia National Laboratory. The majority of the tests conducted by the LASL were "weapons related." These types of detonations were conducted to test nuclear devices intended for a specific type of weapons system. Other nuclear tests conducted by the LASL include weapons effects, which were designed to evaluate the impact of a nuclear detonation on targets such as military hardware, and safety experiments, which were conducted to confirm that a nuclear explosion would not occur with the accidental detonation of the chemical explosive associated with a device. These tests were conducted in a variety of locations on the NNSS including Frenchman Flat, Pahute Mesa, and Yucca Flat (DOE 2015).

Due to the dispersed nature of the testing, the LASL staff was correspondingly dispersed throughout the site and used the equipment, buildings, and structures necessary to conduct the tests and to gather the data at those locations. The types of resources they used included the towers, shafts, and tunnels where the devices were detonated, trailers, diagnostic stations, laboratory buildings, office buildings, dormitories, and centralized facilities like the Control Point in Area 6 which was the command center for the nuclear detonations (Drollinger et al 2003).

In addition to weapons, effects, and safety tests, the LASL was also involved in the engineering of reactors and engines for the Nuclear Engine for Rocket Vehicle Applications (NERVA) nuclear thermal

rocket propulsion program. The program, which began in 1961, was created to design an efficient and reliable system to boost both piloted and autonomous rockets to the moon, Mars, and beyond (Reno et al. 2022). The NRDS was developed as part of the program and was in use for the next 16 years supporting the nuclear rocket program. The LASL personnel pushed for the NRDS to be built on the NNSS as they were familiar with the site because of their involvement in the nuclear weapons testing (Reno et al. 2022).

The primary mission of the NRDS at the NNSS was to support the Rover program in developing and field-testing nuclear rocket reactors and engines for the space program (AEC 1961; Miller 1984). The first stage involved to developing and testing reactor materials capable of withstanding high temperatures, and to generate new concepts for converting nuclear energy into useful propulsion forms (AEC 1960). The second stage was to design and test a nuclear engine for actual flight, and the third stage, performed by NASA, was to incorporate the engine into a Saturn V launch vehicle for flight-testing (AEC 1964). All these tasks were done in coordination with LASL and private industry contractors participating in the original Rover program.

Building 23-620 was constructed for the LASL J-3 group, who were the "Administration and Operations Support Group" for the LASL (SNPO 1969). Before the construction of Building 23-620, the administration for LASL was scattered throughout Mercury and other parts of the NNSS.

Holmes & Narver

Holmes & Narver was active from the initial construction of what is now the NNSS through the end of the Cold War. This work was part of Contract 20, which was the longest-running single contract ever administered by the U.S. government. James T. Holmes and D. Lee Narver started the firm in 1933 in Los Angeles to repair earthquake damage to a large number of buildings. The firm entered the realm of government-base design in 1940 with the designs of Camp Roberts and Camp Nacimiento for the Army, followed by a number of wartime military bases. Design of the nuclear test facility at Enewetak in 1947 foreshadowed its role in designing the new base camp of Mercury in 1951. The firm was extremely active during the Cold War with projects including facilities at Naval Air Weapons Station China Lake, Douglas Aircraft, and overseas military bases. Much of the work Holmes & Narver did at Mercury as well as the rest of the NTS was the unglamorous job of perpetually altering buildings to keep pace with changing mission requirements (Reno et al. 2018).

Although the military-related contracts were central to the work performed by Holmes & Narver, the firm also had significant civilian commissions, such as the 1958 TWA terminal at Los Angeles International Airport. Holmes & Narver ceased to exist as an independent firm in 2001. It was acquired by DMJM, which was in turn acquired by AECOM (Reno et al. 2018).

Ben Beckler and Associates

The firm of Ben Beckler and Associates was originally established as Kewell, Kocher & Benedict. in 1950. The firm went through a series of changes as the principals in the firm changed. Ben Beckler joined the firm in 1953 and circa 1962 the firm changed its name to Ben Beckler and Associates (Reno et. al 2018). The firm in all its iterations designed many structures for the military, including the Air Force and the Navy. The firm designed numerous buildings including a large number of the Capehart Wherry Housing popular during this era (Moore et al. 2010).

The architect on record for Building 23-620 was Helmut Steve Sander. Sander was educated in Germany and is first noted in the AIA directory in 1956 working for the California firm of Kannery-Mayer Architects. He joined Ben Becker and Associates in 1960 and was still employed there in 1970 (AIA

1970). Sander designed a variety of structures, including portable classrooms for the Los Angeles Board of Education, modifications for a hospital on Norton Air Force Base, and a passenger and freight terminal in Lake View, California.

IV. RESOURCE DESCRIPTION

The following description includes Building 23-620. Although the MHD is included as part of the APE for the undertaking to account for potential visual effects to the district, it is not described in detail herein. This report focuses on the individual evaluation of Building 23-620. The MHD is described in detail in Reno et al. (2018).

Building 23-620, LASL J-3 Office Building

History and Evolution of Building 23-620

Building 23-620 was constructed in 1968 as the LASL J-3 office building to support LASL administration activities. The J-division was created as part of LASL to "diagnose and execute integrated dynamic experiments in support of national security objectives" (Burns 2017). The building was first mentioned in a 1967 *NTS News* article about contractors bidding to build a new office building for the LASL's J-3 Division. The article states the office was "to be a single-story, insulated metal, about 1,500 sq ft" building (NTS News 1967). Ben Beckler and Associates were the architects, and Holmes and Narver were the engineers and constructors. The original floor plan of 23-620 shows a rectangular building, consisting mostly of offices, in addition to a utility room, a storage room, and a locker room.

Building 23-620 was constructed as a one-story, metal building on a concrete foundation. It was 48 feet × 32.6 feet and 12.6 feet in height with a low-sloping, side-gabled roof, with a 2-foot overhang, and a wide fascia. The gabled ends had exposed purlins and an internal gutter system within the roof included downspouts on each corner of the building (Figure 5).

Figure 5. Building 23-620, north elevation, March 4, 1971, facing south (best copy available) (REECo 3316-14).

As constructed, the primary elevation was the north elevation. It had two entry doors, both hollow metal with one bronze, plate-glass, off-center, heat reflecting window. The exterior walls were insulated metal panels, with exposed columns on the north and south elevations. The exposed columns framed the two doors and two windows on the north elevation and the two windows on the south elevation. The doors were unevenly spaced on the north elevation, with the eastern door closer to the northeast corner of the building, and the western door set further in from the northwestern corner. Between the two doors were two identical, fixed, bronze plate-glass windows. Due to the irregularly spaced doors, the western window is much closer to the western door than the eastern window is to the eastern door.

The south elevation lacked doors but mimicked the north elevation with identical windows and exposed columns. Both the east and west elevations had no windows or doors. The only break in the wall on the east elevation was for a duct to the heat pump located on the exterior wall. The wall panels on the exterior of the building were painted a cream beige color, with the fascia and gutters a dark brown. On the north and south elevations, where the exposed columns created a framing of the doors and windows, this area, including the doors themselves, were painted blue (Figure 6).

Figure 6. Aerial view of 23-620 circa 1974, facing southwest (modified from NTS NF-74) [best copy available].

The main entryway was the eastern door on the north elevation, and it opened into the foyer. In the foyer, there were two doorways: one to the south that led into a locker room and one to the west that entered into the general office area. The locker room, from the foyer, encompassed the rest of the eastern wall of the building. The general office area through the second doorway in the foyer was an open space. In the northwestern corner of the building was a small room that functioned as a storage and a janitorial room. Directly south of the janitorial room was a utility room with cabinets and a sink. The last space along the western wall was the restroom area that encompassed the southwestern corner of the building. The restroom space was divided into men's and women's restrooms. There was a vestibule leading into the restrooms that had a wall-mounted, electric water cooler. Adjacent to the eastern wall of the women's restroom were two offices, which ran the length of the southern wall to the wall of the locker room (Figure 7).

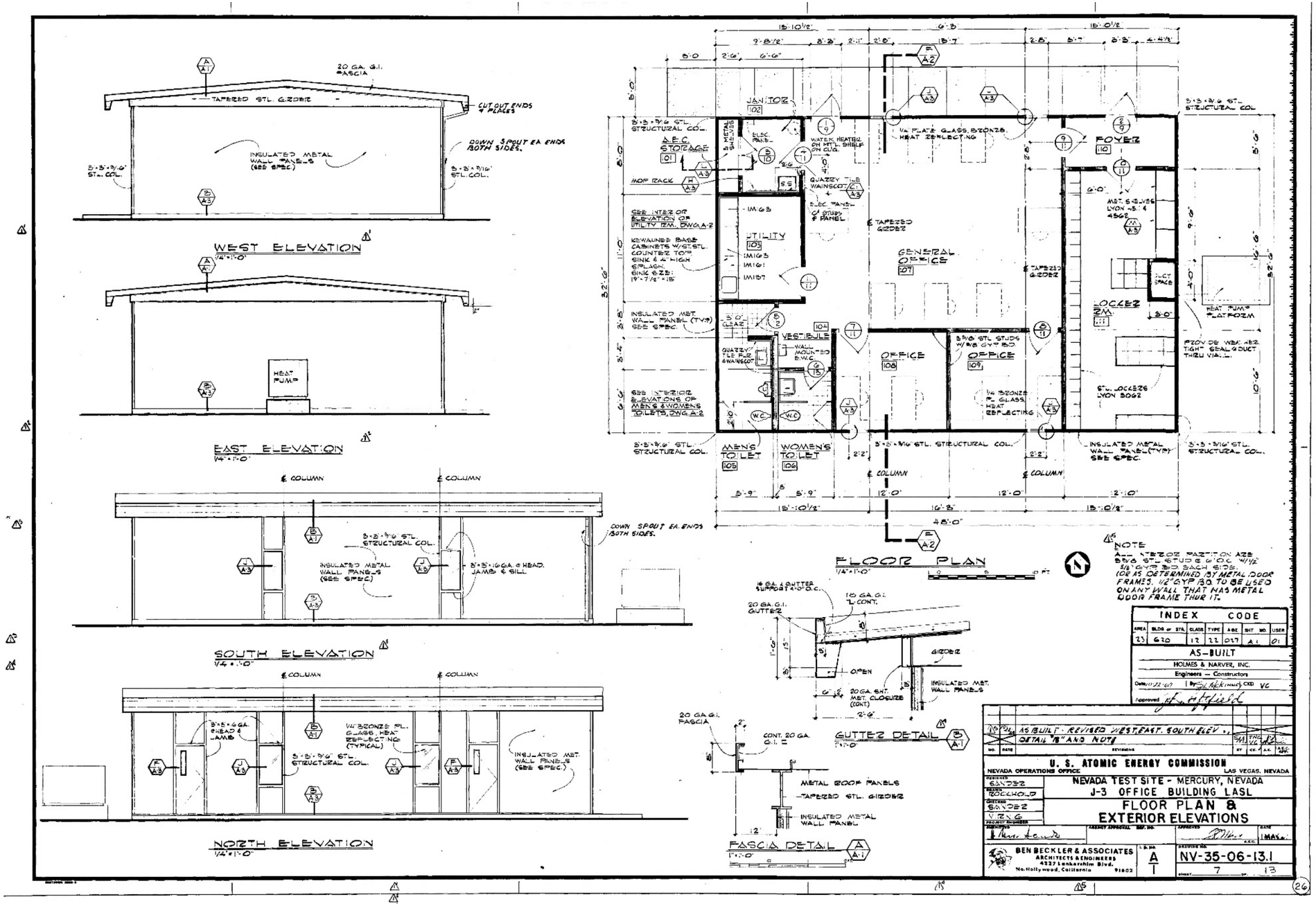

Figure 7. Plan and exterior elevations of Building 23-620, 1969 (H&N 1969).

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There is limited information regarding alterations made to Building 23-620 post construction until the early 1990s. In 1994, portions of Building 23-620 were re-carpeted, and two rooms had carpet installed for the first time (Figure 8). This was likely due to the administration of the J-3 Division administration being moved to Building 23-550 (Beck et al. 1996). The utility room in the northwest corner, and what was originally the locker room had carpet newly installed. The drawing showing this installation, does not identify any other work occurring in the building; however, it is likely the use of the locker room changed with the installation of carpet. This is also when the NTS Building Inventory lists Building 23-620 as a maintenance facility (NTS 1994). The room and door configuration are the same as in the original drawings in 1969. This drawing also does not show windows on the west or east elevations. Based on photos, it appears the windows were added sometime between 1974 and 1991.

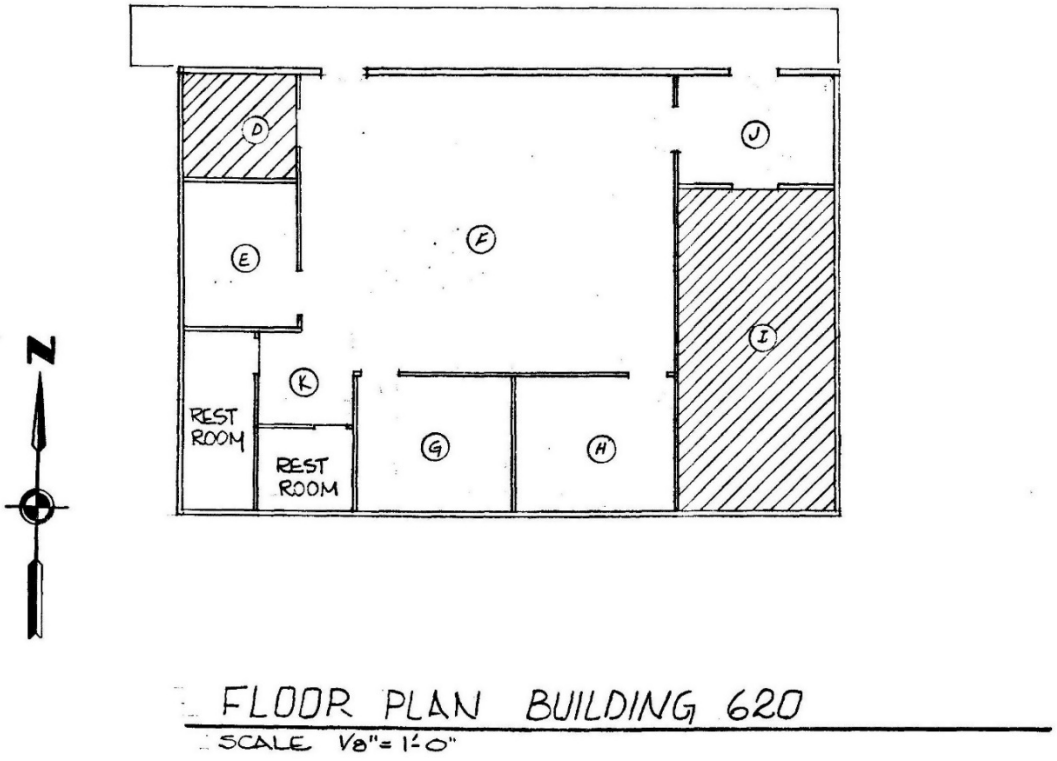

Figure 8. Plan drawing of carpet installation in Building 23-620, 1994 (REECo 1994).

In 1996, Building 23-620 was renovated to remove one wall between the foyer and original locker room and to add carpet to the newly opened space, including recarpeting what was the original locker room (Figure 9). The locker room was also divided by a wall to form two separate offices. The northern end of the room had an exterior entrance door that opened directly into it. The southern end of the wall had an entry door leading into the central office space. The door off the foyer that opened into the general office space is in its same location, however, with this renovation, the direction the door opened was reversed. The rest of the building remains in its original configuration.

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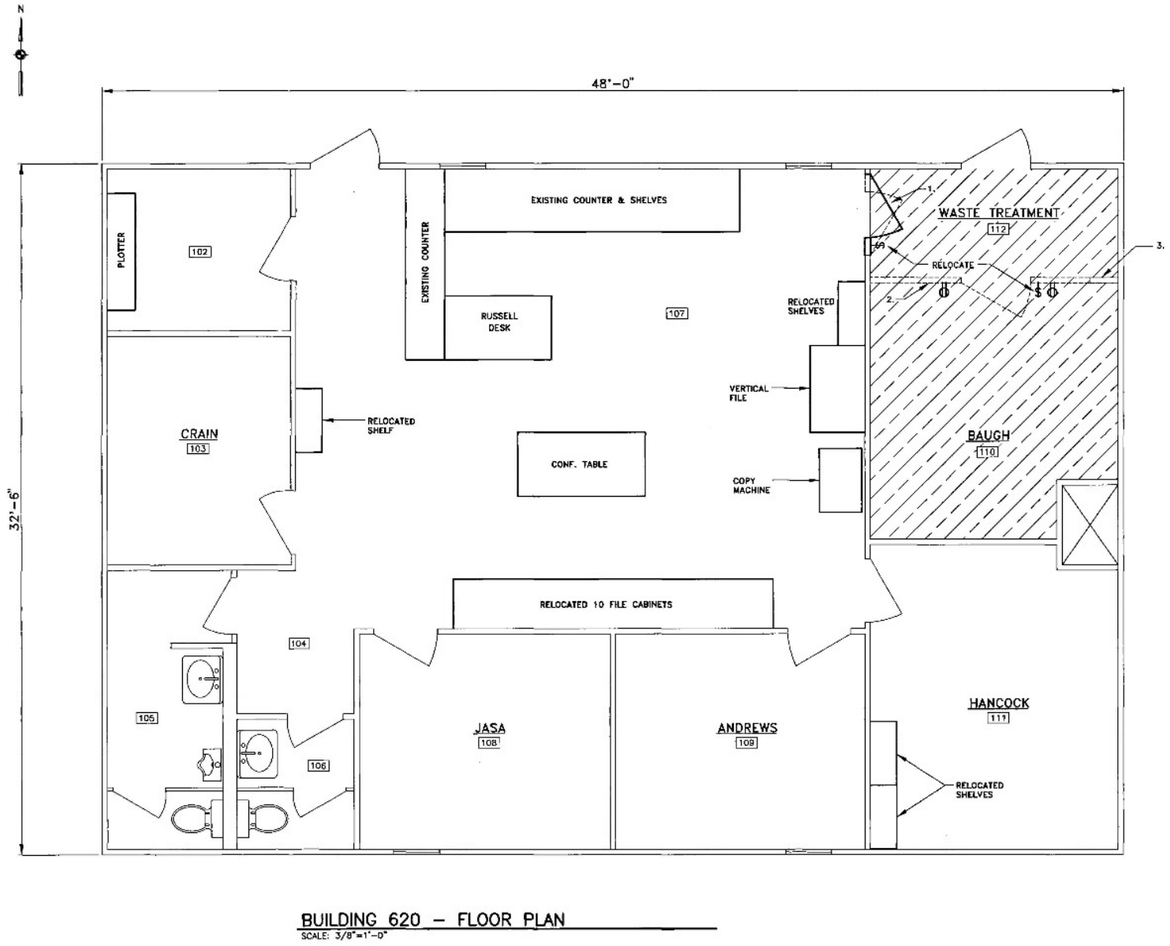

BUILDING 620 – FLOOR PLAN
SCALE: 3/8"=1'-0"

SCOPE OF WORK
1. NEW DOOR OPPOSITE SWING, LOCATE NEXT TO WALL.
2. EXISTING WALL AND DOOR TO BE REMOVED.
3. SECTION OF WALL TO REMAIN FOR EXISTING WATER LINE.

LEGEND
EXISTING
NEW
TO BE REMOVED
NEW CARPET AREA

GENERAL NOTE:
PAINT AND PATCH NEW CONSTRUCTION TO MATCH EXISTING.

AS BUILT
BECHTEL NEVADA
MAINTENANCE DEPARTMENT
MAINTENANCE CONTROL SECTION
DATE 4/29/96 | PROJECT ENGR. R. THOM | CHECKED S. PLUMB
APP/INSP. | DOE APP
SKETCH NO. 544-SK-237

Bechtel Nevada
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U. S. DEPARTMENT OF ENERGY
NEVADA FIELD OFFICE — LAS VEGAS, NEVADA
ACAD FILE NUMBER 620-B | NEVADA TEST SITE | AREA 23
DRAWN 1/9/95 R. THOM | DESIGNED R. THOM | CHECKED | DQC | PROJECT ENGR. R. THOM | ENG.
SUBMITTED | AGENCY APPROVAL | APPROVAL BLOCK | DEPT. OF ENERGY APPROVAL | DATE | PROJECT ENGINEER
RENOVATION PLAN
BUILDING 620
Reynolds Electrical & Engineering Co., Inc.
SITE MAINTENANCE DEPARTMENT
DRAWING NUMBER 544-SK-237
T. S. NTS | REV. 2 | SHEET 1 OF 1

Figure 9. Renovation plan for Building 23-620 (REECo 1996).

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Current Description

Building 23-620 is currently not in use. It is not clear when the building was abandoned, but itis listed as operational in a NNSS 2014 buildings report (NTS 1994).

The most recent space management plan produced in 2015 by the NNSS management and operating contractor shows the interior configuration remains as it was in 1996 while several exterior doors and windows have been altered or added. On the north elevation, the eastern door and the bronze glass in the fixed windows has been replaced (Figure 10). The windows on the south elevation have been replaced from fixed windows and are now one-over-one, aluminum-framed windows (Figure 11). A window added to the west elevation sometime between 1974 and 1991 is centrally located and is a one-by-one, horizontal sliding, aluminum window. Two other windows added to the east elevation are one-by-one, horizontal sliding windows with the southern window aluminum, and the northern window vinyl. A solar water heater is currently off of the south elevation and a newer HVAC unit, surrounded by yellow pipe bollards, is adjacent to the east elevation.

Figure 10. Building 23-620 north and east elevations, facing southeast (22110_3932, DRI 2022).

Figure 11. Building 23-620, south and east elevations, facing northwest (22110_3938, DRI 2022).

Building 23-620 remains in its original location along the eastern side of Mercury Highway, as do most of the buildings that surrounded it when originally constructed. On the west side of the highway, both the Maintenance Shop (23-700) and the Crafts Shop (23-710) remain with little alteration. To the north of Building 23-620, the Administration Building (23-630) is in its original location, with a building addition the only major change. To the northwest, the large "Blue Box" building (23-600) and the smaller Dosimetry Lab (23-610) also remain, with little to no changes since the period of significance. The only change in the vicinity of Building 23-620 is a new fire station, constructed in 2010, located 315 feet to the southeast, where the golf driving range was formerly located.

Alterations Summary

Building 23-620 has been modified since its construction in 1968. Windows were added to both the east and west elevations, and the windows have all been replaced along with the entry door on the eastern side of the north elevation. In addition, the trim that surrounded the doors and window has been removed. The building shape, size, and its roofline remain in its original configuration. The interior of the building has only minor changes, most of which are cosmetic (Figures 12 and 13). This includes paint and the installation of new carpet. The biggest modification was the conversion of the original locker room into two separate offices. This change included removing the south wall of the original foyer and adding a new wall. With this change, the east entryway door opened directly into the new office, making the southern entryway door the likely main entrance. It is not clear when the wall separating the two offices was constructed. It is not shown on the 1994 drawing for the carpet installation, but it is shown as existing on the 1996 renovation drawing.

Figure 12. Interior of Building 23-620, main office area, facing east (22110_3945, DRI 2022).

Figure 13. Interior of Building 23-620, main office area, facing southwest (22110_3970, DRI 2022).

V. NATIONAL REGISTER EVALUATION OF BUILDING 23-620

As previously noted, Building 23-620 is a contributing element to the NRHP-eligible MHD. The following section details the evaluation of its individual eligibility for listing in the NRHP. Based on this evaluation, Building 23-620 is not recommended as individually eligible for listing in the NRHP.

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. Although Building 23-620 was constructed to support the activities of the LASL, it was not directly associated with the nuclear testing activities. It housed administrative and operations staff, rather than scientists and engineers responsible for testing and experimentation. Nuclear detonations were conducted outside of Mercury and in such areas as Frenchman Flat, Yucca Flat, and Pahute Mesa. It is in these locations where buildings and structures were used by the LASL to design, engineer, and test nuclear devices. They include such important places as the Control Point in Area 6, the complex of buildings and structures located at the NRDS, and other testing sites. Building 23-620, by contrast, was constructed as an administrative office building. While many LASL employees and others may have used or visited Building 23-620 in the course of their LASL employment, the building's function as an administrative office building does not have a direct association with nuclear testing or the important scientific work of the LASL. As such, there is no evidence to suggest that it was directly associated with important events or trends as an individual resource during the period of significance considered for this evaluation, 1968 through 1992. Building 23-620 does not appear to be significant under Criterion A.

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 Building 23-620 has a direct association with any significant person. Although Building 23-620 provided needed office space for the LASL and their administrative needs, there is no indication that any significant person was connected with the work in Building 23-620. It is likely that any such person would have been more closely associated with locations where the LASL conducted important testing and experimentation on the NNSS. Building 23-620 is not significant under Criterion B.

Criterion C

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. Building 23-620 was constructed as an office building for the LASL in 1968. Its architecture does not embody the distinctive characteristics of any particular type, period, or method of construction because it does not contain enough design elements to represent a certain type, period, or method of construction. Building 23-620 is a Category I building in the MHD because it was the only building of its exact type constructed in the district. However, the design and construction methods are not distinctly different than other buildings built in Mercury at that time. It is a simple one-story, rectangular plan building with limited defining architectural features. Building 23-620 is also not the work of a master architect, nor does it possess high artistic values. Building 23-620 was designed by Beckler and Associates and constructed by Holmes & Narver. Beckler and Associates was an architecture firm from North Hollywood, and the

architect on record for 23-620 was Helmut Steve Sander. Sander, while having a successful career in architecture, is not recognized as a great in the field. The design of 23-620 does not express a particular phase in the career of Sander or a particular idea or theme. Building 23-620 is not significant under Criterion C.

Criterion D

Properties significant under Criterion D must have the potential to yield further information about human history that can only be answered by the actual physical material of the resources. There are two requirements for a resource to be found significant under Criterion D: the property must have or have had information to contribute to our understanding of human history or prehistory, and the information must be considered important. Building 23-620 has been subject to research on its history in the community of Mercury and its architecture, both of which are known. It is unlikely that the building could yield any more information that would be considered important. Building 23-620 does not appear to be significant under Criterion D.

Integrity Analysis

To be eligible for listing in the NRHP, a property must possess both significance and physical integrity. It does not appear that Building 23-620 possesses significance. However, it does still retain aspects of its integrity. Building 23-620 retains its aspect of location, as it is still in the location where it was constructed. Building 23-620 retains some design integrity. Changes to its design include the addition of windows on the east and west elevations, the replacement of an original exterior door, and the original windows. In addition, the removal of the trim that framed the doors and windows was removed, leaving almost no original style elements on the exterior of the building. On the interior, the only major design modification was the conversion of the locker room into offices. Building 23-620 has had a minor change in the immediate vicinity of its setting due to the construction of the new fire station to the southeast in 2010. Further to the north and the northeast, there is more of a loss of integrity due to the removal of a number of original Mercury buildings and structures. While those buildings are not directly adjacent to Building 23-620, the setting of Mercury itself has changed and therefore diminishes the integrity of Building 23-620. The integrity of materials has been diminished with the replacement of the windows, original bronze glazing, and one of the exterior doors. It does retain the integrity of workmanship, feeling, and association. Although the building has been modified, it still shows the workmanship of a one-story, rectangular plan, metal-paneled building, the feeling of a support building in the town of Mercury, and its association with Cold War-era activities on the NNSS.

VI. CONCLUSION

Building 23-620 does not appear to be individually eligible for listing in the NRHP. Although it retains some aspects of integrity, it does not possess individual significance under any of the established Significance Criteria. It remains eligible for the NRHP as a contributing element to the MHD.

Following consultation with the SHPO on the findings in this NRHP evaluation report, a Finding of Effect report will be prepared, along with mitigation documentation as specified in the Mercury PA, as appropriate. The mitigation will include an ARA Update form for the building which will include the final NRHP evaluation determination.

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Nicole Brannan meets the Secretary of Interior's Professional Qualifications Standards for Architectural History. Ms. Brannan has over 18 years working in the cultural resources field both in archaeology and historic preservation. She holds a Bachelor of Arts Degree in Anthropology/ Archaeology from Mercyhurst College in Erie, PA, and a Master of Arts in Historic Preservation from Goucher College in Baltimore, MD. Ms. Brannan served as the primary author of this report and conducted all of the research, evaluations, and analyses.

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