

FINAL

Moffett Field Site 28 Vapor Intrusion Cultural Resources Survey Report

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Introduction

Harris Environmental Group, Inc. (Harris Environmental) contracted with Nakapuna Solutions, LLC, to conduct a cultural resources investigation, including a literature review and pedestrian survey at the Moffett Field Site 28 Vapor Intrusion project area in Santa Clara County, California in compliance with Section 106 of the National Historic Preservation Act (NHPA). Site 28 is comprised of and proposes action at buildings 15, 16, and 567 (Figure 1). In 1994, the United States (U.S.) Navy transferred Moffett Field to the National Aeronautics and Space Administration (NASA), which serves as the lead consulting federal agency for Section 106 of the NHPA. The Area of Potential Effects (APE) includes the three buildings, located within Moffett Field (Figures 1 and 2). This report outlines the methods and results of that survey.

The proposed improvements for the three buildings will include:

Building 15

NAVFAC proposes to seal preferential pathways of VI in the slab and subfloor from air flow, and install a sub-slab depressurization (SSD) system below the slab foundation. Part of the VI mitigation will be accomplished by sealing floor drains in kitchen and bathroom areas. Vent piping will be installed at the blowers and away from HVAC inlets and windows to prevent VI back into the building. As part of the diagnostic testing, 6-inch holes were drilled in the slab and 1 cubic foot of soil excavated near the perimeter footings. During installation of the SSD, fans will be mounted just below the ceiling and secured to an interior wall using a mounting kit. 4-in schedule 40 PVC piping will be attached to the outlet of each fan and extend through a penetration in the roof so that the exhaust is expelled outdoors. The PVC piping will be secured to the interior walls using strut channel and pipe clamps. Where applicable, the strut channel will be fastened to the walls using anchor bolts or drywall screws.

Building 16

NAVFAC proposes to seal preferential pathways by crack sealing along concrete seam lines and cracks and installing a SSD system. The SSD system will be similar to the SSD systems described for Building 15. The PVC risers will be installed in the interior and extend above the roof line and away from HVAC units. The SSD will be exhausted through the roof via 3-inch PVC pipe, 6-inches tall. Room 118 has a separate HVAC system not connected to the HVAC in the rest of the building. A gravity relief damper will be installed as part of modifications made to this HVAC system in order to provide fresh air intakes to prevent the buildup of negative pressures in Room 118.

Building 567

NAVFAC proposes to seal preferential pathways by crack sealing along concrete seam lines and cracks and installing a SSD system. The SSD system will be similar to the SSD systems described for Buildings 15 and 16. The PVC risers will be installed in the interior and extend above the roof line and away from HVAC units. The SSD will be exhausted through the roof via 3-inch PVC pipe, 6- inches tall.

The literature review revealed that, while historic properties are present within the 0.5-mile (0.8-km) radius identified for the project, the low visual profile of the proposed vapor intrusion project makes it unlikely that these historic properties will be impacted by the proposed improvements,

including visual impacts. The survey of the project area revealed that the property and Buildings 15 and 16 have been heavily modified since their construction. The proposed actions in this project will not affect the NRHP-eligibility status. Building 567 is not 50 years old and, therefore, does not qualify as a historic structure. Harris Environmental therefore recommends a finding of “No Adverse Effect” for the Moffett Field Site 28 Vapor Intrusion project. No further archaeological investigations are recommended for the Moffett Field Site 28 Vapor Intrusion project area.

Location

The project area is located within the Ames Research Facility (ARC), in Moffett Field, Santa Clara County, California. The three buildings are located south of South Akron Road, east of McCord Avenue, north of Wescoat Road, and east of Severyns Avenue. The project area is located in Township (T) 6 South, Range (R) 2 West, in Section 10. The project area is located 2.45 miles (3.94 km) south of San Francisco Bay, 0.44 miles (0.71 km) north of Highway 101, and immediately 2.36 miles (3.80 km) north-northeast of downtown Mountain View, California (see Figures 1). The block that contains all three buildings has been heavily developed, is surrounded by four paved streets, and is interconnected by a paved parking lot with multiple utility lines (Figure 2).



Figure 1. USGS topographic map showing the location of the Moffett Field Site 28 Vapor Intrusion project area.



Figure 2. Aerial photomap showing the location of the Moffett Field Site 28 Vapor Intrusion project area and existing conditions.

Background

To establish an archaeological context for the project, Harris Environmental requested background research from the Northwest Information Center (NWIC) of the California Historical Resources Information System (CHRIS). Normally, Harris Environmental would have conducted the research onsite, however, Covid protocols would not allow it. Materials reviewed included the National Register of Historic Places (NRHP), the NASA ARC Historic Preservation Office (online), cultural resource survey reports, and General Land Offices (GLO) survey maps.

Cultural Setting

Pre-Contact Period Background

The project area is located on land that was initially inhabited by the Ohlone. Although consisting of many separate groups of people, the Spanish, wanting to consolidate all the groups in to a single entity, called the people the Costanoan, or “coastal people”. They occupied a large area, from the San Francisco Peninsula, south to Monterey, and inland to San Juan Bautista. They subsisted mainly on acorns, tanbark oak, black oak, valley oak, and coastal live oak supplying the acorn meal. Other plants included the buckeye and laurel nuts, tarweed, chia, holly leaf cherry, and digger pine. Game animals included deer, elk, bear, antelope, whale, sea lion, otter, and seal, as well as smaller mammals and birds. Fish included steelhead trout, salmon, sturgeon, and lampreys, with mussels, abalone, clams, oyster, and hornsells (Cartier n.d.). Material culture would include bone, shell, wood, and stone tools (Heizer and Whipple 1971).

Historic Background

According to Architectural Resources Group (2007:5):

“The United States Naval Air Station Sunnyvale, California was commissioned on April 12, 1932. The station was one of two bases constructed to port the Navy’s two large airships (dirigibles)—the U.S.S. Macon and the other dirigible, the U.S.S. Akron, which was stationed in Lakehurst, New Jersey.

The dirigibles were part of a domestic security program designed by Admiral William A. Moffett. The dirigibles were capable of staying airborne for much longer periods of time than airplanes and were considered ideal for conducting reconnaissance of the nation’s coastlines.

The 1933 station was defined by perimeter roads: Wescot Road to the north and west, Bushnell Road to the south and west, and Sayre Avenue to the east. The base was arranged in a formal and hierarchical arrangement typical of American military base design. McCord Avenue, which runs north/south, divided the base into halves; the administration functions were located to the west and the industrial functions, including the massive dirigible hangar, were positioned to the east. The western section, including the Administration Building (Building 17), Dispensary (Building 23), Bachelor Officer’s Quarters (Building 20), Recreation Building (Building 25), and office building (Building 19) were arranged around a central axis, Shenandoah Plaza. The buildings in the eastern, industrial section, such as the enormous Hangar 1 (the dirigible hangar) and Building 15, were placed in a grid with very little green space or relationship between the buildings. All

of the buildings within the original base, with the exception of Hangar 1, were constructed in the Spanish Colonial Revival Style.”

Previous Archaeology

Harris Environmental archaeologist and architectural historian Laura Tenen conducted an electronic records search at NWIC, File Number 21-1384 on 2-23-2022. The purpose of this records search was to obtain information about sites or historic resources that were located within a 0.25-mile radius of the current project area that could be affected by the implementation of the project.



According to CHRIS, forty-three (43) buildings have been recorded as historic resources within a 0.25-mile radius of the current project area, many of which make up the Historic District. It is highly unlikely that the current project, which has a low visual profile, will have any negative effect on these buildings or the district.

Fieldwork

Surface Investigation

Harris Environmental archaeologist Robert Patterson, M.A., RPA performed the fieldwork within the project area on May 3, 2022. Mr. Patterson was granted access to all three buildings that make up the current project area. Photographs were taken of the interior and exterior of each building, as well as the areas surrounding the buildings. Mr. Patterson also performed a pedestrian survey of the area around and in-between the buildings. During the pedestrian survey, all exposed soils were inspected for integrity and for cultural materials. Harris Environmental documented the existing conditions across the project area with digital photographs. Harris Environmental observed low soil visibility within the majority of the project due to the presence of asphalt and

concrete. Areas that did have exposed soils (landscaped beds, etc.) had been heavily disturbed by the construction of the roads, buildings, and the installation of utilities.

Historic Resources

Building 15

Building 15 is a U-shaped, stucco-covered building constructed in 1933 (Figure 3). The central portion of the building's north side is in the Spanish Colonial Revival style, with a side gabled, tiled roof. The remainder of the building shows an International style with a flat roof. The north façade under the gabled roof shows three bays. The west bay has been filled and stuccoed to match the exterior walls. The other two bays show large, 12-panel double doors, the upper panels of which are glass (Figure 4). The flat-roofed portions of the building show large window groupings, filled bays, and single metal doors (Figure 5).

Building 15 is a contributing property within the NRHP-listed US Naval Air Station Sunnyvale, California Historic District (Shenandoah Plaza). The building was originally used as a fire station, laundry, and garage. It now serves as a security station.

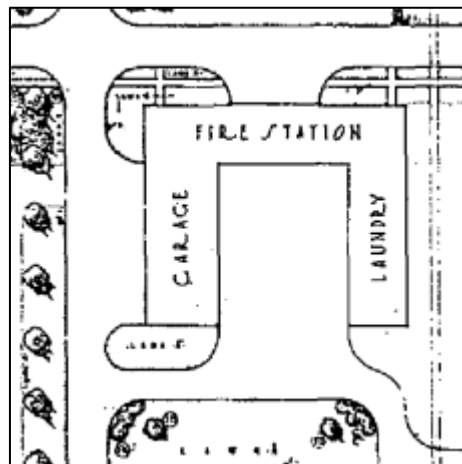


Figure 3. Building 15 shown on 1933 US Naval Air Station (NAS) Sunnyvale landscape plans.



Figure 4. Building 15 north elevation center.



Figure 5. Building 15 west and south elevations.

Building 16

Building 16 is an irregularly shaped, stucco-covered building constructed in 1933 (Figure 6). The majority of the building displays flat roofs, which are tiered at different heights. A central rectangular portion of the building displays a front gabled roof. This portion is likely an addition, as it is not shown on the 1933 drawings. The tallest portion of the building shows a Mission Revival style shaped parapet with a flat top (Figure 7). A tall bay with a rolling metal door is located on the south elevation of this portion of the building, with one bay set at each side that has been filled in (Figure 8). The remainder of the building shows large window groupings and sets of double doors with multiple glass panels. Several window and door openings have been partially or completely filled in and covered with stucco.

Building 16 is a contributing property within the NRHP-listed US Naval Air Station Sunnyvale, California Historic District (Shenandoah Plaza). The building was originally used as a locomotive crane shed. It now serves as a public works building.

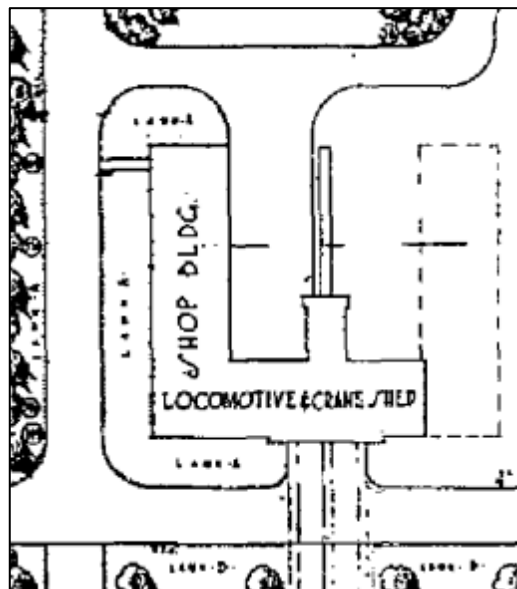


Figure 6. Building 16 as shown on the 1933 US NAS Sunnyvale landscape plans.



Figure 7. Building 16 north elevation.



Figure 8. Building 16 south elevation.

Building 567

Building 567 is a pre-fabricated ribbed metal warehouse building with a shallow-pitched metal roof. An open storage wing with a shed roof extends from the east elevation. Metal overhead doors are located on the east and west elevations, and a single metal door and aluminum frame window are on the south elevation (Figure 9). The building was constructed in 1978.

Building 567 (P-43-002474) was recorded by Alexandra C. Cole in 1998 as part of the Inventory and Evaluation of Cold War Era Historic Resources at Moffett Federal Airfield. The building was

not considered eligible for the NRHP at the time. As a Cold War-era support building, a type found at any Naval institution, regardless of mission, it was not considered of exceptional national significance (Criterion G). The property was determined not eligible with SHPO concurrence (DOE-43-99-0279-0000). Harris Environmental concurs with this determination. Although the building is now older (44 years old), it still is not of historic age and does not meet Criterion G for exceptional national significance (Cole 1998).



Figure 9. Building 567 west and south elevations.

Summary and Discussion

Harris Environmental has completed a literature review, pedestrian surface survey, and historic property inventories within the Moffett Field 28 Vapor Intrusion project area. Background research revealed that the project area is located in an area of moderate to high archaeological probability. There are no previously recorded archaeological sites within the immediate vicinity of the project area. The historic properties within the search radius will not be affected by the proposed project.

The proposed improvements for the three buildings will include:

- The floors will have cracks sealed.
- Small diameter borings will be drilled through the floor to the subsurface and pipes with blowers will be installed inside the buildings.
- The pipes will be vented through the roof.
- Some HVAC improvements on one of the buildings will need to be done as well, which could include additional components on the roof.

Building 15 and 16 have previously been recorded as contributing to the eligibility of the Sunnyvale Historic District. The proposed actions associated with this project will not alter, directly or indirectly, any of the characteristics of these historic properties, or affect their integrity. These buildings have previously been heavily altered on the interior, and have had additions over time that have not adversely affected their eligibility to the NRHP. The proposed improvements, listed above, will not fundamentally alter the structures of the buildings. Building 567 was recommended as not eligible when it was first recorded in 1998, and nothing has changed in the last 24 years to alter that recommendation.

Project coordinators should bear in mind that a survey is, by definition, a sampling process that cannot completely rule out the presence of archaeological materials on-site. To prepare for the possibility that archaeological materials are discovered during project activities, Harris Environmental recommends that project coordinators develop and implement inadvertent discovery language, in the event a discovery is made during construction.

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