

**U.S. Naval Air Station Moffett Field**  
**Building 20 Re-Use Guidelines**  
Final

Moffett Federal Air Field, California  
.....



*prepared for*  
NASA/Ames Research Center  
Moffett Federal Air Field, California

*prepared by*  
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## Introduction

The following *Guidelines for Rehabilitating Buildings on Shenandoah Plaza* have been prepared to assist NASA Ames professional staff, tenants and their consultants in rehabilitating structures on the historic Navy base. The guidelines are intended to be a design aid in determining acceptable alterations, additions, and repairs for preserving the character of existing buildings. They are based upon *The Secretary of the Interior's Standards for Rehabilitation*.

The Rehabilitation Guidelines of this study are particularly concerned with identifying intact historic fabric at each building and establishing parameters for rehabilitation work for building reuse.

### I. Executive Summary

Building 20 is one of five buildings around Shenandoah Plaza constructed in the Spanish Colonial Revival Style. The Shenandoah Plaza buildings have seen relatively little change to the overall landscape and configuration among the buildings. It is critical to the rehabilitation of the buildings to view them in the context of the plaza.

Of the five buildings, Building 20 is almost completely intact in its original spatial configuration and its exterior and interior features. It has been well maintained over the 70 years since its construction. With minor code improvements and complete disabled access improvements, the building is very amendable to new uses, while meeting *The Secretary of the Interior's Standards for Rehabilitation*. Further evaluation of the structural, mechanical, plumbing, and electrical systems will be required as re-use designs are developed.

### II. Methodology

The buildings which comprise a portion of the US Naval Air Station Sunnyvale, California Historic District (#17, #20, #21, #22, and #23) were inspected by a team from Architectural Resources Group (ARG) in August 1999 and June 2000, to determine the historically and architecturally significant features of each building. Building #25, also in the District, had only a cursory inspection due to hazardous materials restrictions. Building 19 will not be reviewed at the time. Members of the NASA/Ames staff, as well as the US Navy Public Works Department, attended the tours of the buildings and provided insight as to the evolution and transformation of the buildings over the past 68 years.

In addition to an on-site inspection, the team also photographed the buildings and used the following sources to obtain additional information:

DMJM - Engineering Documentation Center (Building 17 only)

DMJM - Facilities Planning Office (Building 17 only)

NASA – Facilities Planning Office

From these repositories the following documents were utilized as the primary sources of information:

The 1994 National Register of Historic Places Nomination Form for the US Naval Air Station;

Sunnyvale, California- Historic District;

The Department of the Navy, Bureau of Yards & Docks Record Drawings dated 1934 (reprinted from microfilm);

Existing Conditions CAD Floor Plans dated August 1999;

Aerial photographs dating from 1931 through 1944 (as well as a current aerial).



### III. Building Summary

Location:	Building 20, Shenandoah Plaza, South Akron Road
Area:	US Naval Air Station, Sunnyvale, California- Historic District
Date of Construction:	1933 (completed by early 1933)
Historic Structure:	Yes
Historic Use:	Bachelor's Officers Quarters
Current Use:	Vacant
Hazard Level:	Ordinary
Number of Floors:	2 stories with partial basement
1st Floor:	18,700 sq. ft.
2nd Floor:	13,980 sq. ft.
Basement:	2,601 sq. ft.
Total:	35,281 sq. ft.
Exterior Materials:	Concrete with integral colored stucco, Terra-cotta tile roof
Construction Frame:	Concrete

#### IV. Site Evaluation

##### A. Historical Background of Shenandoah Plaza

Sunnyvale Naval Air Station was commissioned on April 12, 1932. The formality and hierarchy of the base and building designs are prime examples of military base design. Critical to the understanding of the buildings individually is to understand them in their larger context as they relate to one another. All of the buildings surrounding Shenandoah Plaza are constructed in the Spanish Colonial Revival Style and are contributing buildings to US Naval Air Station Moffett Field Central Historic District.

The buildings which surround Shenandoah Plaza are arranged in order of prominence around the plaza. Building 17, the Headquarters Building, which is the focal point of the plaza, has the greatest importance. This importance is reflected in the exterior and interior architectural detailing. Although located directly across the plaza from one another, Buildings 19 and 20 have different levels of importance. The original functions of the two buildings were enlisted men's housing and officer's quarters respectively. A small loop road connecting the two buildings defines a minor plaza between the two buildings. The original site plans generated by the Navy for construction of the base, indicate future symmetrical additions to the buildings which would have further reinforced this minor plaza. The difference in the two buildings' level of ornamentation was indicative of the rank of the men housed within. As the Bachelor's Officers Quarters, Building 20 has a richer level of detailing both inside and out than Building 19.

As with Buildings 19 and 20, Buildings 23 and 25 are located across from each other with similar foot prints but with different levels of importance. The front facade of Building 25 and its interior spaces have a greater level of ornamentation, while Building 23 is very simple. The front entry of Building 23 has a similar loggia design to that of Building 19 and 25 but lacks the limestone ornamentation. An element unique to Building 23 is the Ambulance drive-through at the rear of the building.

A series of site plans, drawn by the Navy, reflect the changes in the development of the base as construction progressed. These plans indicate future additions to Building 17, 19, and 20, that were never constructed. The Navy ignored these original plans early in 1935 with a one-story addition to the rear of Building 23 which complimented the original building. Further additions to Building 23, by the Army in 1940 and 1941, mimic the original building with the exception of limestone surround at the entries. Sometime after 1950, the Navy constructed a small one story addition to the rear of the east wing of Building 23. In 1951, the Navy significantly expanded Building 19 in a manner, again, inconsistent with the original site plans.

For the purpose of this report, we agree with the National Register nomination form that the Period of Significance for these structures is 1930-1935 and 1942-1946, which corresponds to the period of Navy occupation.

##### B. Recommendations

Although Shenandoah Plaza was originally designed with provisions for future additions, proposals for additions to the structures at this time must be very carefully considered with the integrity of the historic district in mind. Additions to the building should be considered comprehensively for the entire district as opposed to being considered on a building by building basis. Additions should be designed in concert with the intent of the original site plan to be symmetrically located relative to each structure and relative to the overall complex. All additions should be compatible with each other as well as compatible with

the original structures.

Additions of ramps and other site features should be sensitive to the context of the historic district. The addition of ramps to accommodate building access should be designed with minimal visual impact, preferably as walkways with minimal slope. Landscape features such as plantings, lawns, walkways and streets should be preserved in the same manner as the buildings.

## V. Architectural Evaluation

### A. Building Description

Building 20 is organized along a primary symmetrical axis which runs north/south. A cross axis, running east/west, contains the building's main circulation corridor and terminates in two building wings which again run north/south. A one story structure, which projects to the south along the symmetrical axis, houses the officer's dining room and kitchen. At the center of the building, at the intersection of the two axes, is a formal entrance lobby and reception space.

Exterior features of the building include integrally colored cement plaster wall surfaces, a projecting string course between the first and second floors; an entry portal with ornamental limestone surrounds, porches and terraces at the primary, secondary and rear entrances, and six over six steel windows. The building is capped by a Spanish tile roof with shallow eaves and gables. Cement plaster clad flues capped with tile and vented by ornamental grille work also contribute to the historic character of the roof.

The exterior remains much as it appeared during the period of significance. There are no visible alterations to the building from the front. The most notable alterations occur on the rear of the building. They include the enclosing of terraces #2 and #3 which resulted in the infill of two windows, adding fire escape stairs at the rear second floor east/west wings, a roof enclosure in court #1, and single story additions at the kitchen and court #1.

The formality of the architectural arrangement and articulation between public and private spaces reflects the respect afforded to enlisted officers—the building's original occupants. The building is entered on the north/south axis where the most public spaces, the lobby, dining room and kitchen, are located. The lobby is the most highly ornamented space in the building. It features concrete columns, capitals and beams with a faux wood finish. The original flooring material was terrazzo. A fireplace with a limestone surround that matches the exterior surrounds, also contributes to character of the lobby as a focal point of the building.

Along the central axis of the building running east/west, is a double loaded corridor with living quarters on either side. The living quarters occur in various layouts. Generally, all contain a bedroom, living room, closet and vanity. The finishes and features of the living quarters include wood flooring, double-hung steel windows, panel doors, textured wall surface, and vanity. Also located at the junction of the central east/west axes corridor and the wing corridors are the central toilets and showers. Notable remaining historic finishes in the toilet rooms include marble partitions, pedestal lavatories, toilets, nickel-plated-brass hardware, marble thresholds and ceramic tile floors and wainscot.

At each end of the central east/west axis corridor are identically detailed stairways which provide circulation between the first and second floors. These stairwells are within the building envelope and are

decorated with faience tile flooring and ornamental metal guard and hand rails.

Spatially, the building remains almost completely true to its original form. The original progression of space from public to private is unchanged. The public spaces are still understood, as they were intended to be, as the core of the building. Alterations that have occurred have been minor. Most of the original finishes and features described above remain intact although throughout the building the historic flooring has been concealed under carpeting, the historic light fixtures in the central east/west corridor have been replaced, and some of the wall tiles in the kitchen have been damaged.

The corridors have also been affected by minor alterations usually due to attempts at resolving code issues related to exiting requirements. At the rear, southern end of the second floor corridors, the former window assemblies have been removed and replaced with metal exit stairs. However, it should be noted that the size of the window openings has not been altered. When the Navy made the building unisex, visual screen walls were installed in the corridor on the second floor. The stairs have also seen little or no change. In an attempt to resolve exiting issues, the original exterior doors have been re-hung to swing in the direction of travel.

The greatest level of change has occurred to the spaces closest to the entrance lobby. The Reading and Captain's Rooms to the northwest of the lobby have had a significant level of alteration. Walls have been removed, new walls have been constructed, and finishes have been concealed. The area which has seen the greatest level of change are the three bedrooms to the south east of the lobby. In this area of the building, walls that once separated bedrooms have been removed. A suspended acoustical ceiling and faux-wood flooring have been installed and furring out of the existing walls has occurred.

#### B. Areas of Historical Significance

The building has been surveyed and evaluated for areas of historical and architectural significance and the features have been categorized into levels of descending importance: significant, contributing, tertiary, and non-contributing.

In considering alterations and rehabilitation efforts for the building reuse, the areas of greatest significance should be dealt with in the most careful manner. The following is a definition of each level of importance and the features of the building included in each category. (See floor plans and list of Character-Defining Features at the end of this report for additional information.)

1. Significant Character-Defining Features: These features are the most important, both architecturally and historically, without which the building would lose its distinctive character. Alteration or removal of these features should be avoided.

The following are significant character-defining features:

- Terra cotta tile roof, cupola, historic flues and vents

- Exterior walls, fenestration, ornamental Limestone

- Interior public spaces - lobby and dining room including the following features: concrete column and capitals, concrete beams and ceiling joists, fire place, arched openings and stairs, and light fixtures

- First floor central corridor - the portion visible from the lobby up to the double acting doors

- Terrazzo flooring and base, terrazzo border and base with resilient field tile throughout building

Doors and frames - entry doors  
Stairs and stair enclosures in each wing

2. **Contributing Features:** Contributing features are important elements which contribute to the understanding of the original design. Alteration or removal of these features may be necessary for programmatic or building system requirements. However, removal should be minimized and where necessary mitigated.

The following are contributing features:

- Central corridor axes - first floor corridors not visible from the lobby and all of second story corridors
- Doors and frames - first floor interior doors
- Porches and Terraces
- Living quarters - first story
- Toilet/shower rooms - first story
- Concrete and plaster texturing

3. **Tertiary Features:** Tertiary Features are original elements of the building which are of a lower importance relative to the understanding of the original design. Alteration or removal of these features, if necessary, would have a limited affect on the integrity of the building.

The following are tertiary features:

- Basement level
- Office space - first story
- Bedroom and Living Room partitions
- Toilet/shower rooms - second story

4. **Non-Contributing Features:** Non-Contributing features are areas of the building which have been remodeled and where additional alteration would not have an effect on the original integrity of the building. In some cases, removal of the non-contributing features may have a positive effect on the building.

The following are non-contributing features:

- Terrace #2 and #3 enclosures
- Single story addition at kitchen
- Alterations made when the lounge adjacent to the lobby was created
- Single story addition at lounge
- Exterior Exit stairs from second story

C. **Conservation Responsibilities**

The following materials require special care and treatment in their maintenance and rehabilitation:

- Terrazzo flooring, terrazzo border and base with resilient tile
- Removable metal partitions (where they exist)
- Integral color stucco

D. **Recommendations/ Rehabilitation Guidelines:**

Any alterations to the significant character-defining features should be approached carefully and sensitively, following *The Secretary of the Interior's Standards for Rehabilitation*. These *Standards* define

Rehabilitation as “the process of returning a property to a state of utility, through repair or alteration, which makes possible an efficient contemporary use while preserving those portions and features of the property which are significant to its historic, architectural, and cultural values.” Alteration of significant character-defining features will require consultation with the California Office of Historic Preservation.

Spatial relationships on the plaza and within the buildings play a significant role in the historic character of the district. How Building 20 relates to the other structures on the plaza and how it is arranged internally has a significant effect on one’s ability to understand the evolution of the historic district. Maintaining these relationships is important in protecting the Historic District and National Register status of Moffett Field. While the interior has had some limited reconfiguring, the basic form and character of the spaces, as well as most of the finishes, remain intact.

Building 20 is in excellent physical condition. Of the buildings on Shenandoah Plaza, Building 20 retains the most integrity architecturally and spatially. With the exception of limited code compliance issues, and seismic upgrades, the building could be re-occupied with relatively little renovation or repair.

If modifications are made to the building, the following are seen as non-contributing elements which could be removed: the additions at terraces #2 and #3, the small one story additions at the kitchen and court #1, and the porch covering in court #1.

The building’s continued residential use is recommended. Re-use of the building could be accomplished with relatively little alteration except as outlined in Section VI, below. However, if a change to office use is considered, it is recognized that current programming requirements are increasingly moving toward open office plans, which may necessitate some partition removal. Since the corridor partitions contribute to the understanding of the original circulation patterns, their removal should be mitigated; possibly, through some visual acknowledgement of the original axial corridor configuration in the new design, and/or through restoration of the original flooring.

Due to various alterations over the years, it is anticipated that many historic finishes are concealed beneath existing finishes. Removal of the existing finishes is considered “soft demolition,” and a necessary process used to uncover historic fabric. Finishes identified as non historic should be removed to determine what historic materials can be salvaged. The carpet throughout the building should be removed, as well as acoustical tiles in the dropped ceilings, to determine if the ceiling is an original finish. Applied paint coatings on the walls and the fireplace limestone surround should be analyzed to determine authenticity.

Restoration of the historic exterior color scheme is recommended as part of the scheduled maintenance of the building. Initial observations show that the color scheme of the original structure was somewhat different than what is currently present. As it is not known what the original color scheme was, a complete paint analysis should be performed on the integrally-colored stucco and other exterior components prior to the next coating application.

## VI. Fire Rating/Life Safety Summary

### A. Description

Building 20, constructed in 1933, is an unsprinklered two story building with a partial basement. The building is 35,000 square feet in area, and consists of a concrete foundation, concrete exterior walls,

and metal framed interior walls with plaster and gypsum wall covering. The building is equipped with a Thorn Autocall smoke detection and alarm system, with fire alarm pullstations located at exit doors. The building was reviewed for general code compliance with the provisions of the 1998 California Building Code (CBC).

## B. Requirements

### Occupancy

The building is currently classified as R-1 occupancy, Type III N construction. The following review is based on the same occupancy. If a change of occupancy or change in the ratio of mixed occupancy is proposed, a further detailed code analysis will be required, for the new proposed use.

**Occupancy Separation:** A one hour occupancy separation is required by CBC section 302.5 between the boiler room and R-1 occupancy. Table 3-B of the CBC requires one hour separation between A-3 and R-1 occupancies, CBC section 310.2.2 also requires a one hour separation between storage or laundry rooms and the remainder of the building; between dwelling units; and between floors with more than 3,000 square feet above the first story, in order to qualify as one hour fire-rated construction.

**Fire Suppression Sprinklers:** Based on CBC Section 904.2.2, a sprinkler system is required when the floor area exceeds 1,500 square feet and there is not at least 20 square feet of opening provided above the adjoining ground level in each 50 linear feet or fraction thereof of the exterior wall in the story or basement on at least one side of the building. Currently, the building is not sprinklered.

CBC section 509.1 requires 42" guardrails at all stairs and porches more than 30" above grade. The existing balconies, and interior stairs do not meet this requirement.

### Exiting/Egress

**Exterior doors:** Based on CBC section 1003.3.1.6, the exit doors do not have compliant landings on the exterior side of the doors. Currently, the existing entry has a 6" step.

**Stairs (interior):** CBC section 1003.3.3.6a requires handrails on each side at all stairs with two or more risers. Currently the existing enclosed stairs and three steps to the dwelling units from the lobby do not meet this requirement.

**Stairs (exterior):** CBC section 1003.3.3.6a requires handrails on each side at all stairs with two or more risers. The exterior stairs do not currently have any handrails or guardrails

**Egress:** Based on CBC section 1004.2.6, the second floor can not have dead-end corridors greater than 20 feet in length from an exit door. If the existing non-contributing emergency escape stairs are removed, the second floor corridors become dead-end corridors greater than 20 feet in length.

**Exit Lighting:** CBC section 1003.2.9.1 requires emergency exit path illumination to have an intensity of one foot candles at floor level. Currently, the existing fluorescent lighting does not provide exit illumination when main lighting is turned off.

**Exit Signage:** CBC section 1003.2.8.2 requires exit signs to be located along the path of exit travel and within the exit. CBC section 1003.2.8.4 requires exit signs to have an intensity of five foot candles. Currently, several of the exit signs do not work, and exit signs are missing in some areas.

Corridor and Doors: CBC section 1004.3.4.2 requires the corridor width to be unobstructed. The visual screen currently obstructs the width of the second floor corridor. CBC section 1004.3.4.3.2.1 requires the corridor doors to be rated 20 minute, be self closing, and have smoke draft seals. The existing exit doors are not rated.

#### Other

Restrooms/Toilet Facilities: There are an insufficient number of facilities for both men and women to comply with current code requirements.

#### C. Recommendations/ Rehabilitation Guidelines:

California's State Historical Building Code (SHBC) shall be used in conjunction with the CBC. Section 8-102.1 of the SHBC states: "These regulations are applicable for all issues regarding building code compliance for qualified historical buildings or properties. These regulations are to be used in conjunction with the regular code to provide alternatives to the regular code to facilitate the preservation of qualified historical buildings or properties. These regulations shall be used whenever compliance with the regular code is required for qualified historical building or properties."

#### Occupancy

Occupancy Separation: Based on table 7-B of the CBC, the existing interior wall construction of "pressed metal studs" with lath and plaster on each side meets the requirement for two hour construction.

Fire Suppression Sprinklers: Provide a code compliant sprinkler system throughout the building.

Guardrails: Provide code compliant guardrails at both balconies, located above porches # 1 and 2.

#### Exiting/Egress

Exterior Doors: Re-work all of the exterior stair landings to provide a level landing, flush with the interior floor level at the front doors.

Stairs (interior): Provide code compliant handrails in the two stairs that lead to the secondary entrance porches in a manner consistent with approved system developed for Building 19. Provide code compliant handrails which are compatible to the exiting design at the main stairways. Provide code compliant guardrails which are compatible to the existing ornamented metal hand rail. Consideration should be given to seek approval to use new additional stairs as the required code compliant stairways, thereby necessitating only one code-compliant handrail on the wall of the existing stairways.

Stair (exterior): Provide code-compliant handrails at the front terraces and porches.

Egress: The existing fire escape stairs are non-contributing and should be removed. As such, new interior code-compliant stairways should be constructed at the minor axes. See plan for suggested location.

Exiting Lighting: Provide code compliant emergency exit path lighting.

Exit Signage: Provide code-compliant exit signage.

Corridors and Doors: Remove the visual screen from the second floor corridor. The SHBC section 8-402.3 allows for mitigation of one hour corridor construction with the installation of an automatic sprinkler system. Provide smoke seals and closers at all doors required to be rated.

## VII. Disabled Accessibility

### A. Description

The building was reviewed for general code compliance with the provisions of the 1998 California Building Code (CBC).

Site Access: CBC section 1127B.1 requires the site to provide access to all building entrances and all exterior ground floor exits. CBC section 1129B.1 requires accessible parking be provided. CBC section 1127B.5 requires curb ramps be constructed where ever a pedestrian way crosses a curb. There are currently no code-complying disabled parking spaces for the building. There is a 6" curb from the parking area to the sidewalk.

Building Access: CBC section 1114B.3 requires all building entrances and ground floor exits to be accessible. CBC section 1114B.1.2 requires accessible routes of travel to all portions of a building. There is no accessible entry to the building or path through the building.

If the use of the building remains as lodging, CBC table 11B-3 states that for every 25 rooms, one room must be made accessible.

Door hardware: CBC 1003.3.1.8 requires doors to be "openable from the inside without the use of a key or any special knowledge or effort. The current door hardware is non-compliant throughout.

Toilet Facilities: CBC 1115.7.1 requires all multiple stall facilities to have a clear floor area for a wheel chair turning radius, clear fixture space at the sinks and water closet, and an accessible water closet compartment with an accessible compartment door. Currently, there are no accessible toilet facilities.

Water Fountain: CBC section 117.1.1 requires where water fountains are provided, they shall be accessible. On the first and second floor, the fountains do not meet accessibility requirements. The fountains are currently labeled as having a high level of iron content.

### B. Recommendations/ Rehabilitation Guidelines

The California Historic Building Code shall be used in conjunction with the California Building Code as stated in section 8-102.1: "These regulations are applicable for all issues regarding building code compliance for qualified historical buildings or properties. These regulations are to be used in conjunction with the regular code to provide alternatives to the regular code to facilitate the preservation of qualified historical buildings or properties. These regulations shall be used whenever compliance with the regular code is required for qualified historical buildings or properties."

Site Access: Provide code compliant disabled parking, a curb ramp to the sidewalk, and ramp to a new raised terrace level. See plan for extent. Consider design of the access to the terrace level as a 1:20 walkway rather than a 1:12 ramp eliminating the need for handrails required at a ramp.

**Building Access:** Provide a code compliant accessible lift to the elevated portion of the first floor. Also provide a code compliant elevator to the elevated portions of the first floor, and to the second floor. See plan for suggested locations.

**Door Hardware:** Provide code-compliant door hardware throughout the building.

**Restroom:** The State Historic Building Code section 8-603.4 allows for the construction of a unisex accessible toilet in lieu of modifying the existing toilet rooms. Consideration should be given to preserving the existing toilet rooms in the eventual re-use of the building.

**Water Fountain:** Provide code-compliant accessible water fountains.

## VIII. Energy Conservation

### A. Description

The historic structure was designed with some energy-conserving features. Monolithic terrazzo floors throughout the building, thick concrete walls, large well-ventilated attic spaces, and axial orientation to the cardinal points all contribute to the effectiveness of passive climate control for the building. As mentioned previously, the terrazzo floors have been covered.

### B. Recommendations/ Rehabilitation Guidelines

Existing window Air Conditioners and ventilators should be removed from the exterior of the building to restore the original appearance.

It is recommended that the passive cooling elements be re-established to the greatest extent possible, especially attic ventilation and insulation. New tenants will probably require air conditioning. If modification is desired a building-wide system should be considered, however, if individual units are desired they should be mounted inside and not protruding from the windows.

As a historic building, Building 20 is exempt from the energy code, however, measures to reduce energy consumption and provide for user comfort are recommended. These may include ceiling insulation, attic insulation, and exterior wall insulation where the walls are opened during construction. The existing steel sash windows are historic features and they should be repaired and weather-stripped rather than replaced.

## IX. Hazardous Materials

### A. Description

Although a hazardous materials report has not yet been completed, signs posted around the building indicate that several types of historic material and finishes are known to contain asbestos and that other hazardous materials exist in the building.

### B. Recommendations/ Rehabilitation Guidelines

It is recommended that a complete hazardous materials assessment be performed.

X. Mechanical and Electrical Systems

The mechanical and electrical systems were not inspected as part of this report. It is assumed that the rehabilitation and reuse of Building 20 will entail all new mechanical and electrical systems, with the possible exception of plumbing drainage/waste systems.

All new mechanical and electrical systems will need to be designed with care to preserve the character of significant materials and spaces identified in this report.

XI. Structural System

Building 20 is a two-story structure with a full attic and partial basement. Its exterior walls are 10" thick reinforced concrete with stucco-exterior finish coat. The interior structure consists of reinforced concrete columns on a grid supporting concrete floor beams. The first floor, second floor and attic floor are 4-6" thick structural slabs. The roof is hipped constructed of 2x10 wood rafters and straight sheathing resting on the top of the concrete walls and concrete attic floor.

Interior walls are non-structural metal framed with a plaster finish on each side.

The building appears to be in excellent condition. In the course of design for rehabilitation and reuse, it should be analyzed for seismic and gravity load deficiencies and strengthened as necessary. Strengthening provisions should be designed with care to preserve significant materials and spaces.

Shenandoa Plaza Historic District  
Building 17 Re-Use Guidelines  
Moffett Federal Air Field, California

1. Character Defining Features

Shenandoah Plaza Historic District  
 Building 20

Character-Defining Features				
Elements	Material	Significance	Condition	Comments/Location
<b>Exterior</b>				
<b>Roof</b>				
		S		
Roof tile	Terra Cotta	S	G	
Rake at gable roof	Terra Cotta	S	G	
Gabled form		S		
Gutters & Roof Leaders	Copper	C	G	
Collection Boxes	Copper	C	G	
Antennas	Metal	N		
Attic window vents	Glass/Stucco	C	G	
<b>Original Flue &amp; Vents</b>				
		S		
Cap @ flue	Tile	C	G	Metal straps used to secure flues have rusted and stained cement plaster. The straps should be removed.
Cap @ vent	Copper	C	G	
Stucco- integral color (painted over)		C	G	
Grille work	Metal	S	G	
Flashing @ flue	Copper	C	G	
<b>Cladding</b>				
		S		
Stucco- integral color (painted over)		C	G	
Banding course	Stucco	C	G	
Base	Conc	C	G	
Foundation vents		C	G/P	
<b>Windows</b>				
		S		
Double-hung, 6/6, recessed with projecting sill	Metal/Glass	S	G	integral exterior screen units missing
Surrounds- second story window openings on North elevation wings	Limestone	S	G	Minor organic staining
Screens	Wire mesh	N		non historic
Grills	Metal	C	G	
Railings	Metal	S	G	At 2nd Flr. window on North elevation wings
<b>Doors &amp; Frames</b>				
		S		
Primary	Wood/Glass	S	G	Re-hung to swing out
Secondary	Wood/Glass	S	G	
Transom	Wood/Glass	S	G	
Rear (South Elevation)	Wood/Glass	S	G	Historically significant invisible hinges are distinguished from applied ornamental hinges
Hardware	Copper alloy	S	G	
Door and Transom screens	Wire mesh	C	G	
<b>Entries</b>				
<b>Primary entrance is in center of north elevation.</b>				
Limestone surround at portal	Limestone	S	G	Minor organic staining and efflorescence
Terrace stair and paving	Stamped Conc.	S	G	
Terrace w/decoratively scored concrete	Concrete	S	G	
Urns	Glzd. TerraCotta	C		Original urns were terra cotta, glaze on present urns suggest replacemnet
Cheek Walls	Concrete	C	G	
Light fixtures	Glass/Metal	C	G	
Canopy	Canvas	N		The canopy diminshes the presence of the main

Significance Rating:  
 S=Significant  
 C=Contributing  
 T=Tertiary  
 N=Non-contributing

Condition Rating:  
 G=Good  
 F=Fair  
 P=Poor

Shenandoah Plaza Historic District  
Building 20

Character-Defining Features				
Elements	Material	Significance	Condition	Comments/Location
<b>Secondary entrances are on north side of each wing.</b>				
Ornamental door surrounds	Limestone	S	G	
Porches w/decoratively scored concrete	Concrete	C	G	
Light fixtures	Glass/Metal	C	G	
<b>Interior</b>				
<b>First Floor</b>				
<b>Lobby</b>		S		
Doors to Dining Room	Wood/Plastic	S	G/P	Wd. doors are (G); glazing has been replaced with plastic
Columns and ceiling beams	Conc./Paint	S	G	
Fireplace surround	Limestone/tile	S	G/P	Stone painted to match columns/beams
Flooring	Carpet/Terrazzo	N/S	P/G	Carpet should be removed
Lighting	Brass/Glass	S	G/P	Shape is contributing - historic integrity of fixture is unknown
Wood partition	Wood	N	G	
<b>Dining Room</b>		S		
Ceiling and beams	Conc./Paint	S	G	
Flooring	Carpet/Terrazzo	N/S	P/G	
Lighting	Brass/Glass	S	G	Shape is contributing - historic integrity of fixture is unknown
<b>Flooring (1st floor)</b>		S		
Terrazzo flooring & base	Terrazzo	S	G	Resilient tiles have been replaced with VCT and/or covered with carpet
Terrazzo border and base with resilient tile (checked pattern)	Terrazzo/tile	S	G/P	
Kitchen tiles	Terra Cotta	T/N	F	Some original tiles remain
Flooring in rooms	Wd./Wd. Base	C	G/P	Good condition but covered with carpet, 2" douglas fir
Carpet		N		
<b>Walls (1st floor)</b>				
Plaster		T	G	
Textured cement plaster: corridor & rooms		T	G	
Hollow tile		T	G	Except where holes have been introduced
Scored plaster		T	P	
Faince tile		T	G	
Gypsum wall board		N		
<b>Doors &amp; Frames (1st &amp; 2nd floor)</b>		S		
Trim & Casing	Wood	T	G	
Frame	Wood	T	G	
Door	Wood	C	G	
Door hardware in corridors	Copper alloy	T	G	Double acting hinges
"Rated Door"	Sheet Metal & Wire Glass	T	G	
Frame	Metal	T	G	
Hardware	Metal	T	G	
Door screens (rear/south elevation)	Mtl/Wire Mesh	T	G	

Significance Rating:

S=Significant  
C=Contributing  
T=Tertiary  
N=Non-contributing

Condition Rating:

G=Good  
F=Fair  
P=Poor

Shenandoah Plaza Historic District  
 Building 20

Character-Defining Features				
Elements	Material	Significance	Condition	Comments/Location
Thresholds	Copper alloy	T	G	
<b>Window Features</b>				
		S		
Double-hung units	Metal	S	G	integral exterior screen units missing
Trim & Casing	Wood	C	G	
Hardware spring-loaded double-hung devices	Brass	C	G	
<b>Ceilings (1st &amp; 2nd floor)</b>				
Applied Accoustic Tile	Tile	T	G	Painted plywood applied to original plaster
Toilet, etc	Plywood	N		
Rooms, textured cement plaster	Concrete	T	G	
<b>Toilet &amp; Shower (1st &amp; 2nd floor)</b>				
		C		
Tile Flooring	Ceramic	T	G	
Threshold	Marble	T	G	
Tile Wainscot	Tile	C	G	
Partitions with hardware	Marble w/ nickle plated brass	C	G	
Shower stall	Marble	C	G	
Lavatories	Ceramic	T	G	
<b>Other Features</b>				
Accessories (vanities, towel rails, paper holders)		T	G	Marble partitions with oak doors
Pipe railings and fittings	Metal	T	G	
Door Closers	Metal	T	G	
Partitions in rooms	Marble/Oak	C	G	
<b>Ornamental Metal Work</b>				
Grilles, Radiators	Metal	C	G	
<b>Lighting</b>				
Room Fixtures (sink vanity lights)	Glass/Ceramic	T	G	Not original
Corridor Lighting		N		
<b>Other Features</b>				
Volume of Space: interior public spaces		S	G	
Volume of Space: corridors visible from Lobby		S	G	
Volume of Space: remaining corridors		C	G	
Volume of Space: living quarters		T	G	
Drinking fountain surrounds	Ceramic Tile	S	G	
<b>Stair</b>				
		S		painted
Ornamental rails, balusters, newel post	Metal	S	G	
Colored Faience Tile (stringer?)	Tile	S	G	
Treads & Risers	Tile	S	G	
Flooring	Mosaic/ Faience	S	G	
<b>Second Floor</b>				

Significance Rating:  
 S=Significant  
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 T=Tertiary  
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Condition Rating:  
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 F=Fair  
 P=Poor

Shenandoah Plaza Historic District  
 Building 20

Character-Defining Features				
Elements	Material	Significance	Condition	Comments/Location
<b>Walls</b>				
Textured cement plaster: corridor & rooms		T	G	
<b>Window Features</b>				
Double-hung units	Metal	S	G	integral exterior screen units missing
Trim & Casing	Wood	C	G	
Hardware spring-loaded double-hung devices	Brass	C	G	
<b>Porch</b>				
Door	Wood	C	G	
Screen Door	Wood	C	G	
<b>Other</b>				
Volume of Space: corridors		C	G	
Volume of Space: living quarters		T	G	

Significance Rating:  
 S=Significant  
 C=Contributing  
 T=Tertiary  
 N=Non-contributing

Condition Rating:  
 G=Good  
 F=Fair  
 P=Poor

Shenandoa Plaza Historic District  
Building 17 Re-Use Guidelines  
Moffett Federal Air Field, California

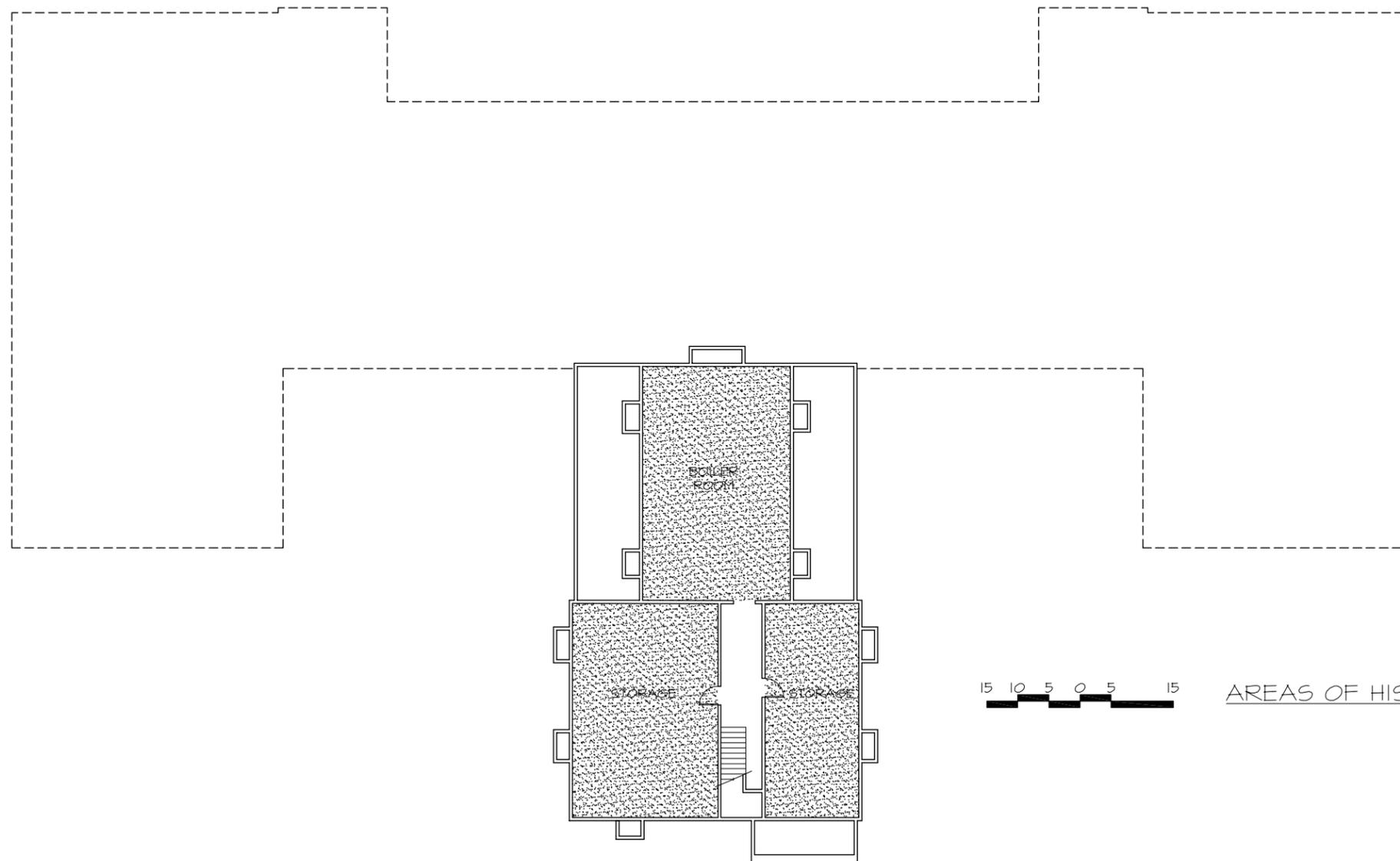
2. Historical Significance Plans

LEGEND

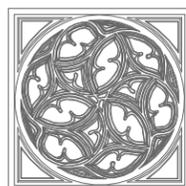
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- SIGNIFICANT EXTERIOR WALL SURFACE 
- CONTRIBUTING 
- TERTIARY 
- NON-CONTRIBUTING 

REHABILITATION NOTES

- ① SUGGESTED AREA FOR NEW EGRESS STAIR. 
- ② SUGGESTED AREA FOR NEW ELEVATOR. 
- ③



AREAS OF HISTORICAL SIGNIFICANCE  
BASEMENT



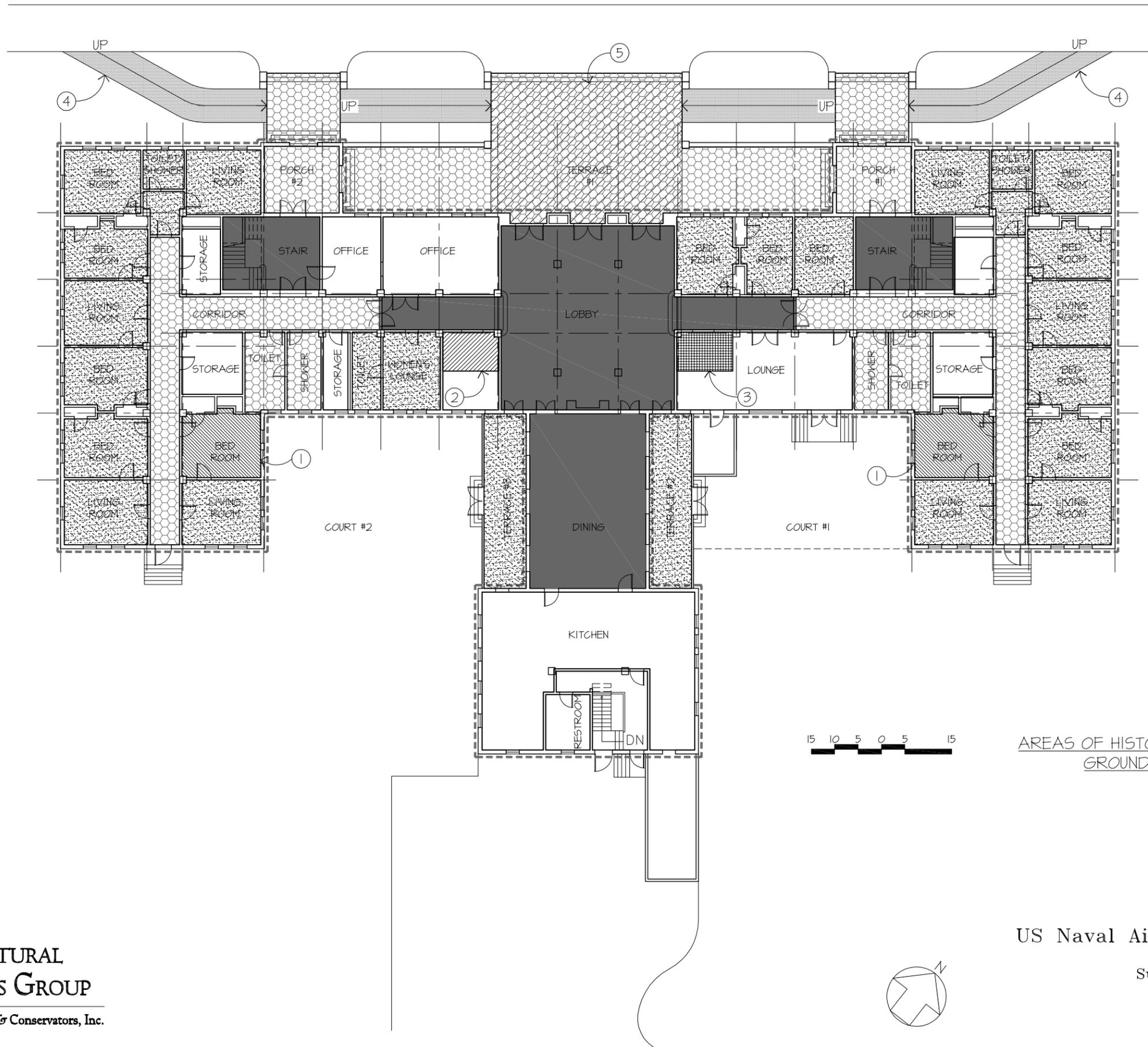
ARCHITECTURAL  
RESOURCES GROUP

Architects, Planners & Conservators, Inc.



BUILDING 20  
US Naval Air Station Historic Distric  
Shenandoah Plaza  
Sunnyvale, California  
00114

10.23.00



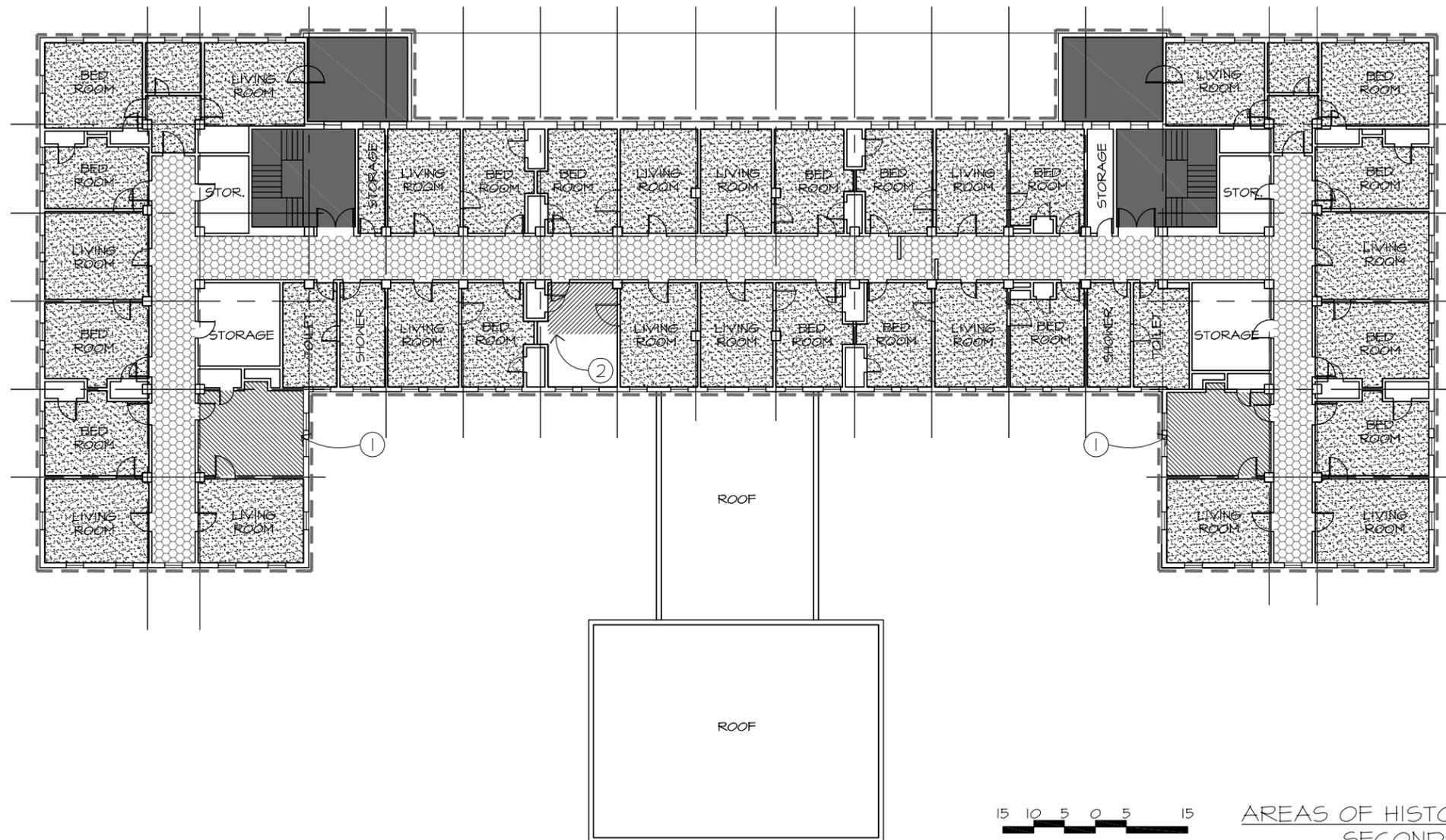
**LEGEND**

SIGNIFICANT	
SIGNIFICANT EXTERIOR WALL SURFACE	
CONTRIBUTING	
TERTIARY	
NON-CONTRIBUTING	

- REHABILITATION NOTES**
- ① SUGGESTED AREA FOR NEW EGRESS STAIR.
  - ② SUGGESTED AREA FOR NEW ELEVATOR.
  - ③ SUGGESTED AREA FOR NEW LIFT.
  - ④ SUGGESTED AREA FOR NEW RAMP.
  - ⑤ RAISE TERRACE #6" TO BE LEVEL WITH EXISTING LOBBY FLOOR.



AREAS OF HISTORICAL SIGNIFICANCE  
GROUND FLOOR PLAN



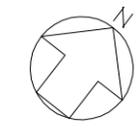
**LEGEND**

SIGNIFICANT	
SIGNIFICANT EXTERIOR WALL SURFACE	
CONTRIBUTING	
TERTIARY	
NON-CONTRIBUTING	

- REHABILITATION NOTES**
- ① SUGGESTED AREA FOR NEW EGRESS STAIR.
  - ② SUGGESTED AREA FOR NEW ELEVATOR.

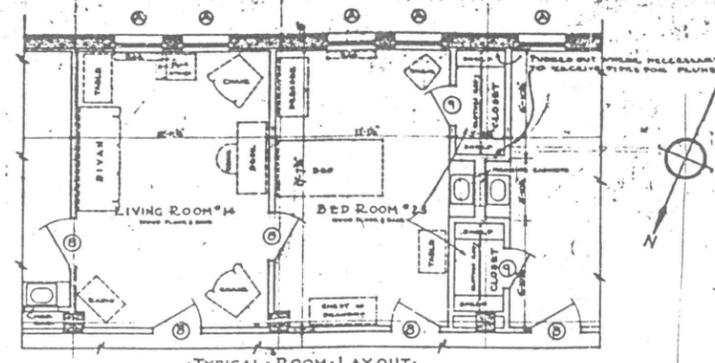
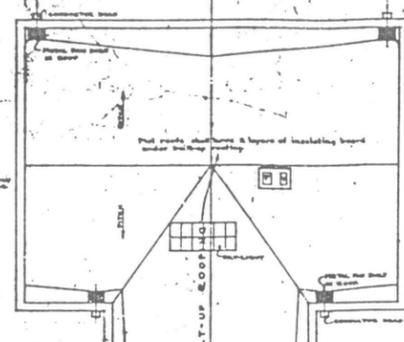
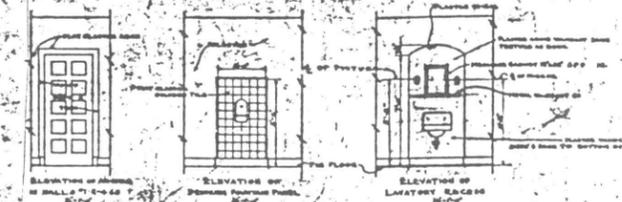
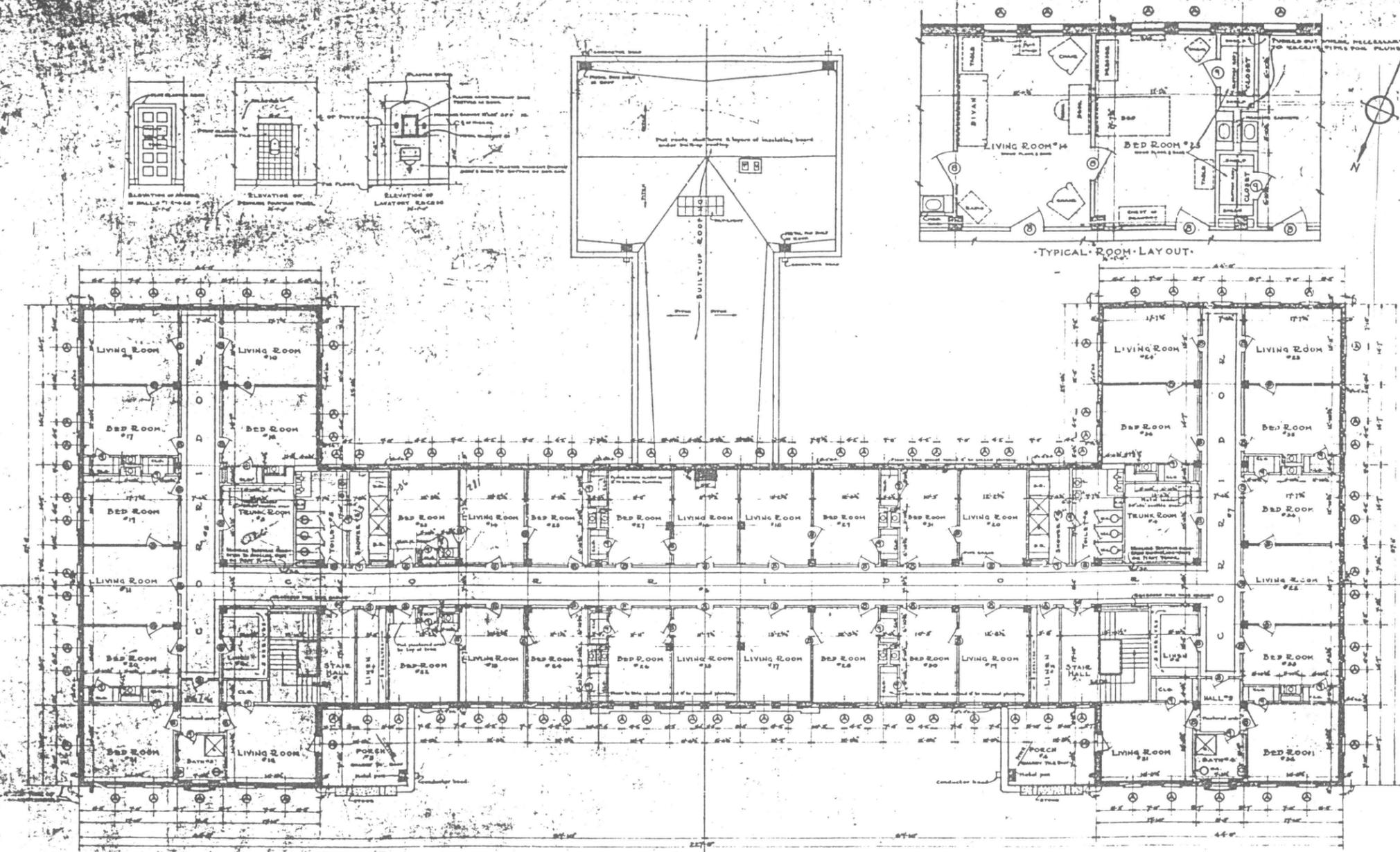


AREAS OF HISTORICAL SIGNIFICANCE  
SECOND FLOOR PLAN



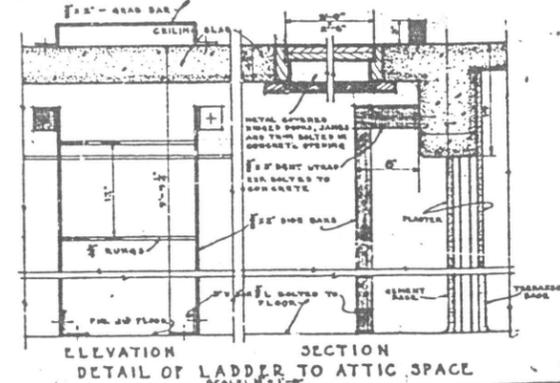
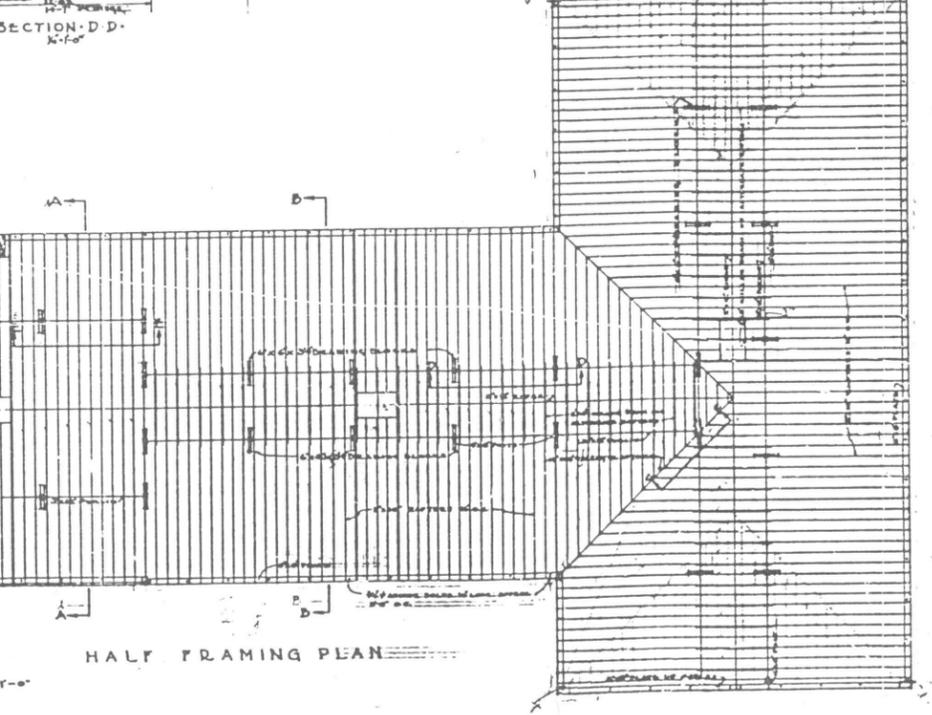
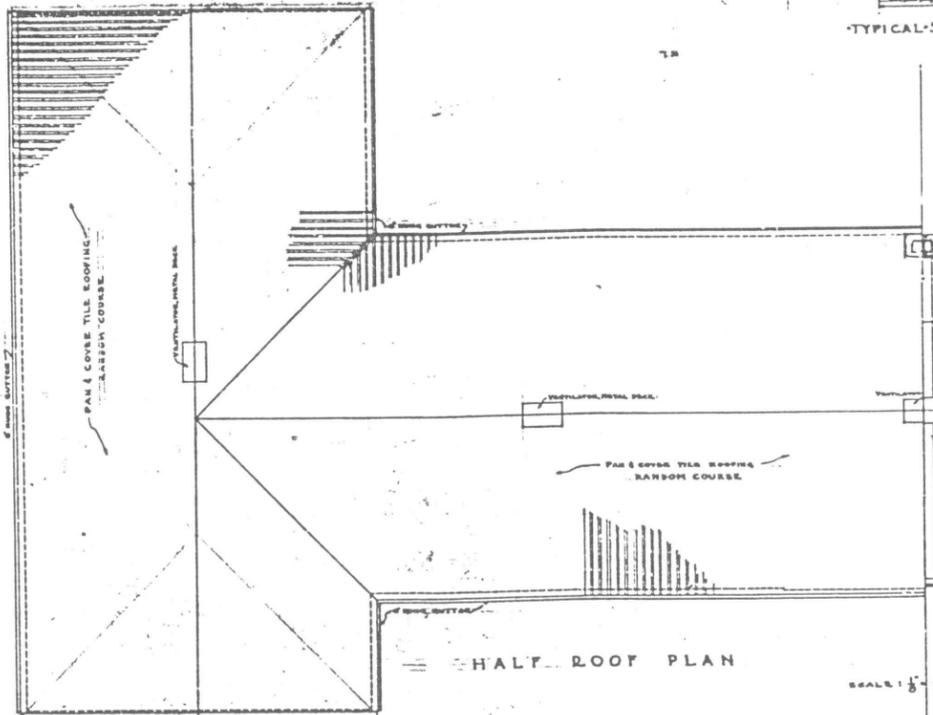
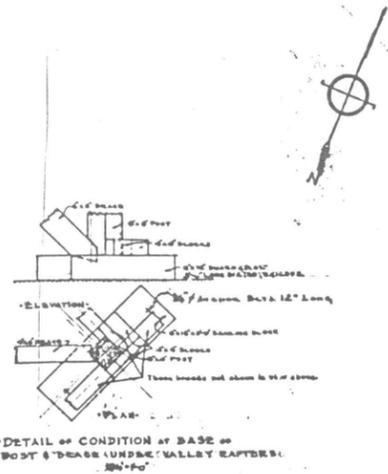
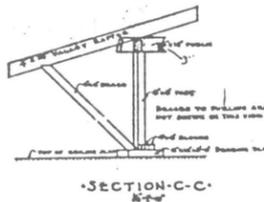
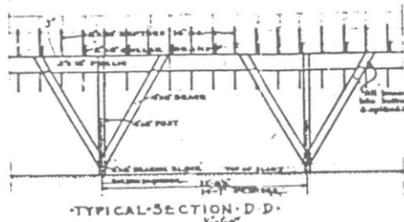
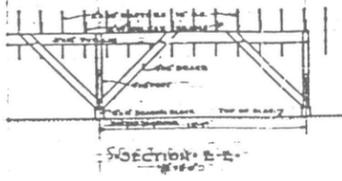
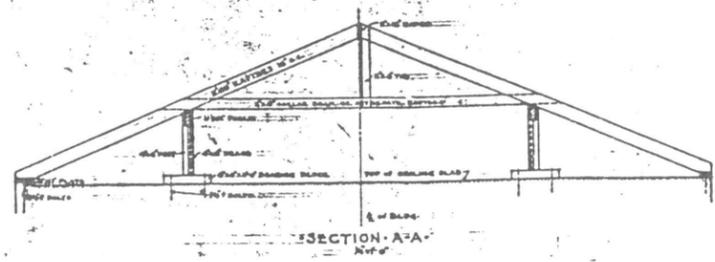
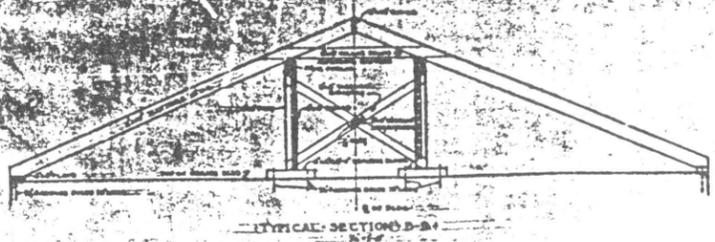
Shenandoa Plaza Historic District  
Building 17 Re-Use Guidelines  
Moffett Federal Air Field, California

3. Original Construction Documents



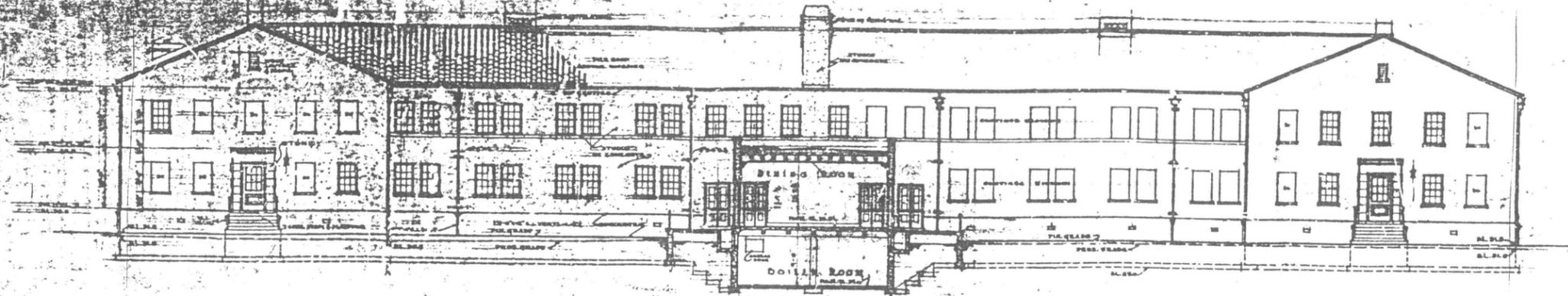
SECOND FLOOR PLAN

Project No.	113724
Date	11/2/24
Drawn by	W. F. F.
Checked by	W. F. F.
Sup. Dfwn.	W. F. F.
Chief Dfwn.	W. F. F.
Project	U.S. NAVAL AIR STATION
Location	SUNNYVALE CALIF.
Room	BACHELOR OFFICERS QUARTERS
Floor	SECOND FLOOR PLAN
Scale	1/8" = 1'-0"
Drawn by	W. F. F.
Checked by	W. F. F.
Sup. Dfwn.	W. F. F.
Chief Dfwn.	W. F. F.
Project	U.S. NAVAL AIR STATION
Location	SUNNYVALE CALIF.
Room	BACHELOR OFFICERS QUARTERS
Floor	SECOND FLOOR PLAN
Scale	1/8" = 1'-0"

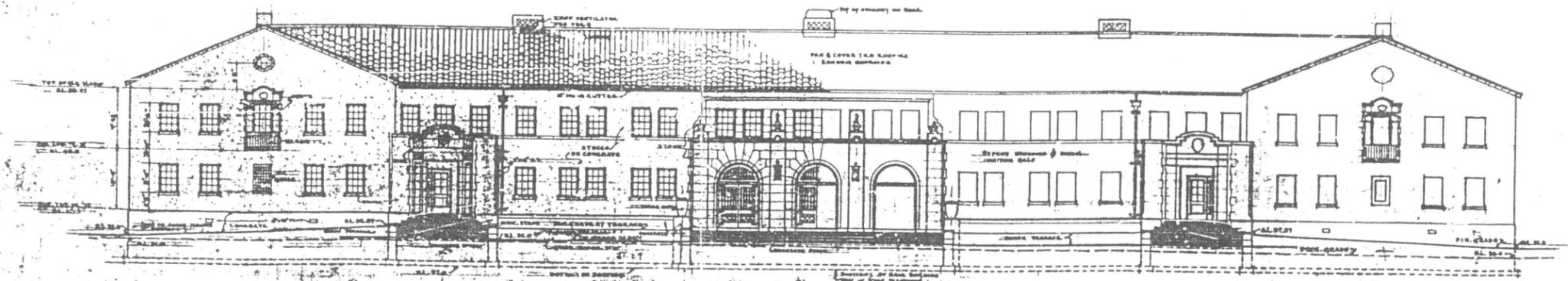


Drawn by: MacFarland	Chief	Navy Department	Bureau of Yards & Docks
Traced by: MacFarland		U.S. NAVAL AIR STATION	
Checked by: Miller		SUNNYVALE CAFE	
Sup. Draw. Subst.:		BACHELOR OFFICERS' QUARTERS	
Chief Draw. Maguire		ROOF & ROOF FRAMING PLANS	
Project No. 2724		Approved: [Signature]	Y.S.C. Drawing No. 113635
Design: [Signature]		Checked: [Signature]	
Scale: As Shown		No. 5074	

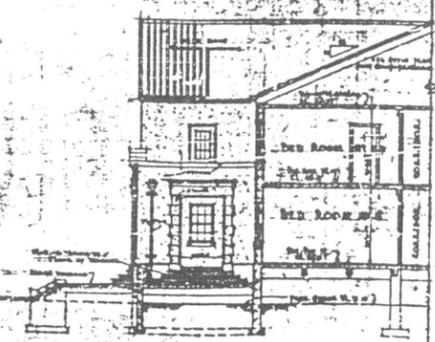
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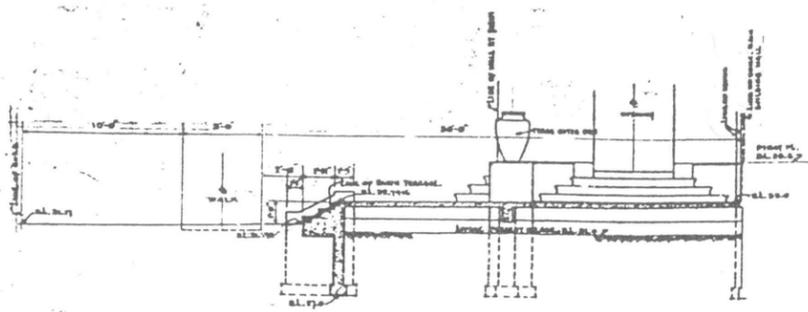
- REAR ELEVATION & SECTION THRU DINING ROOM -



- FRONT ELEVATION -



SECTION THRU TERRACE & TYPICAL WALL LOOKING TOWARD PORCH #1

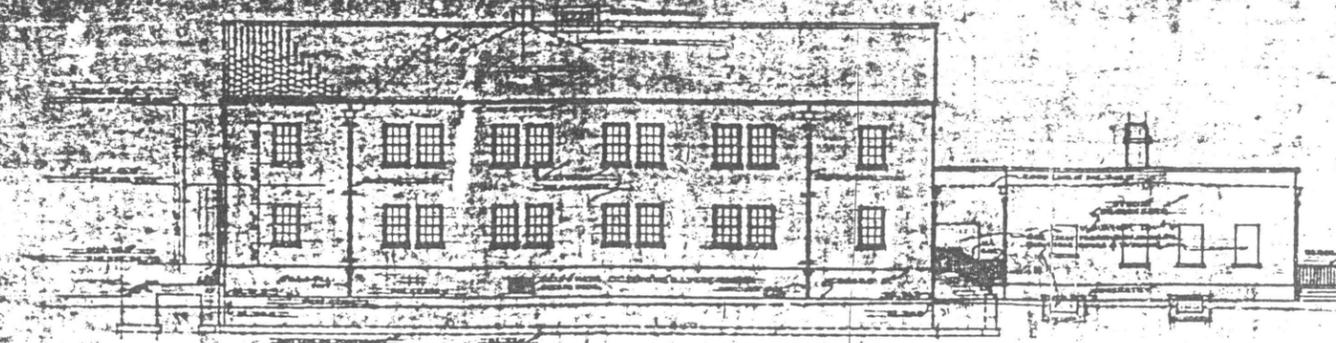


SECTION THRU TERRACE AT FRONT ENTRANCE -

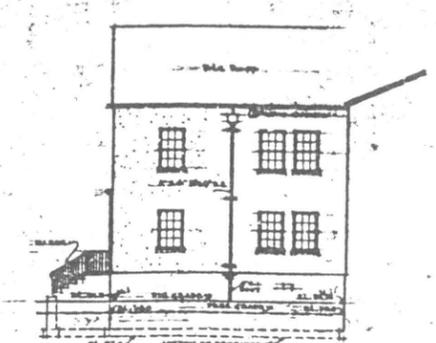
SCALE: 1/2" = 1'-0"

Drawn by: 2000 ECL	NAVY DEPARTMENT	BUREAU OF YARDS & DOCKS
Traced by: 2011 & 2012	U.S. NAVAL AIR STATION	
Checked by: 2000	SUNNYVALE CALIF.	
Sup. by: Sullivan	BACHELOR OFFICERS QUARTERS	
Chief Draftsman: Magrath	ELEVATIONS & SECTION	
Design by: 2000	Approved: 5/24/57	Y & D No. 113,634
Sheet No. 113,634	Project Specialist: 2000	Scale: 1/2" = 1'-0"
No. 6074		

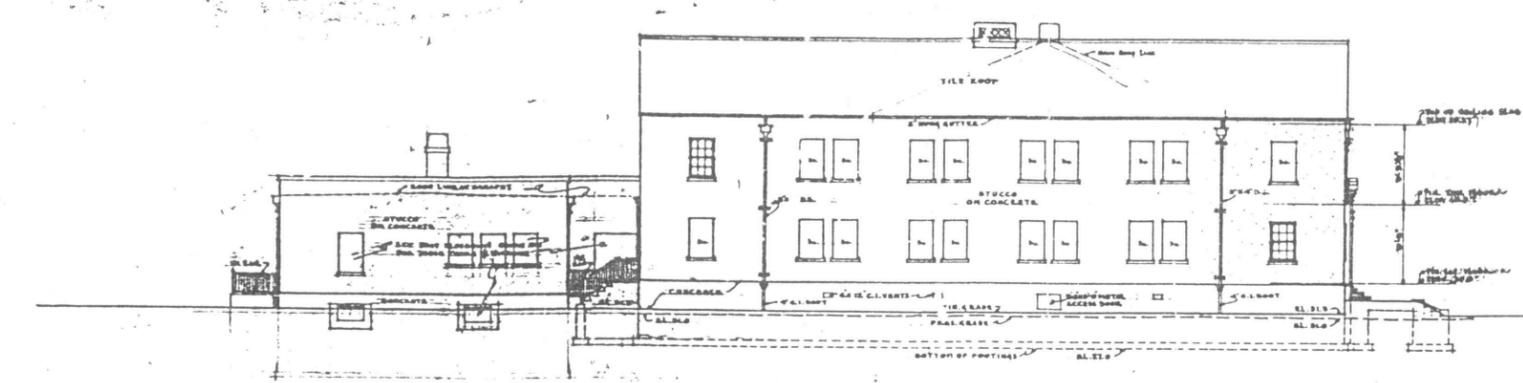
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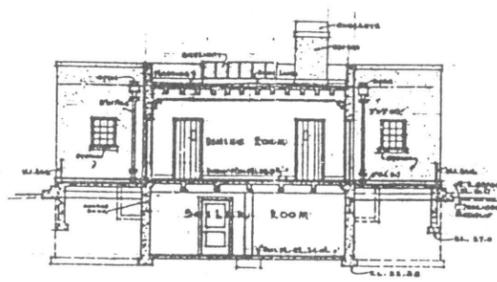
WEST SIDE ELEVATION



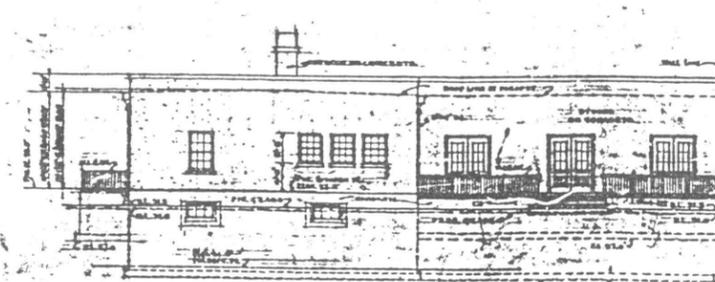
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EAST ELEVATION COURT #12



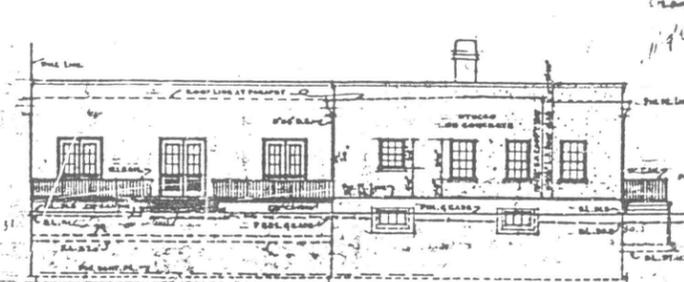
EAST SIDE ELEVATION



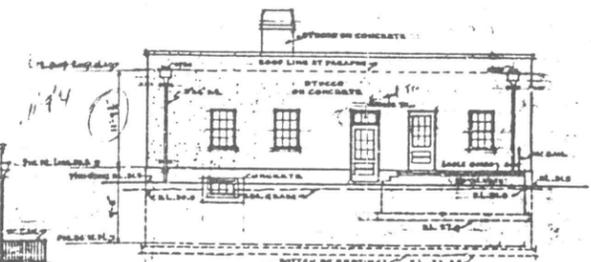
SECTION THRU DINING ROOM LOOKING TOWARD SERVICE WING



EAST ELEVATION COURT #12



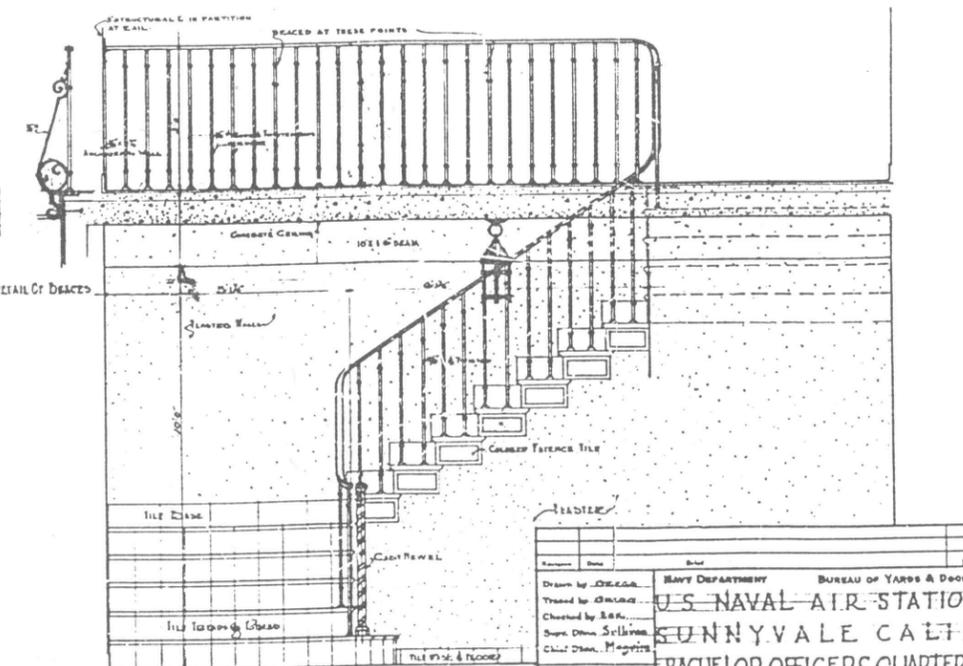
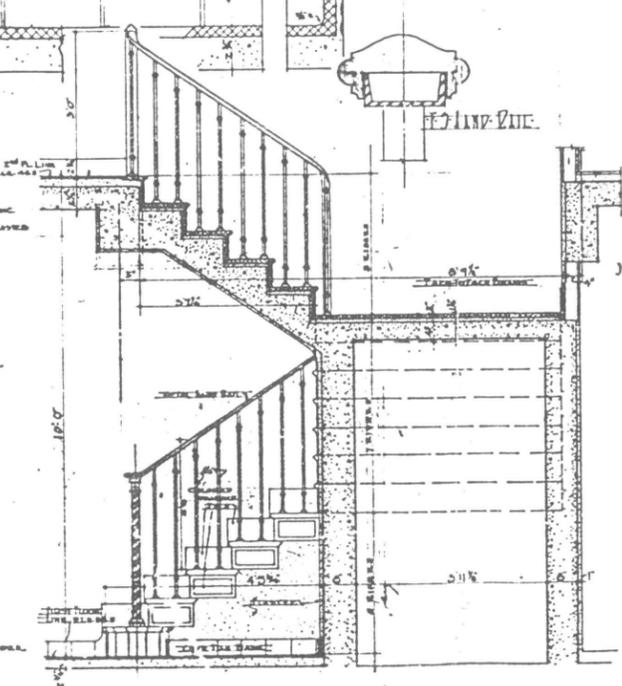
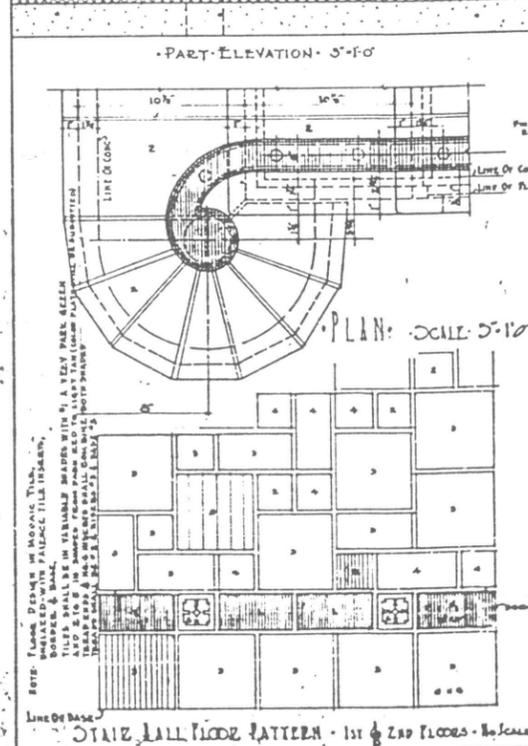
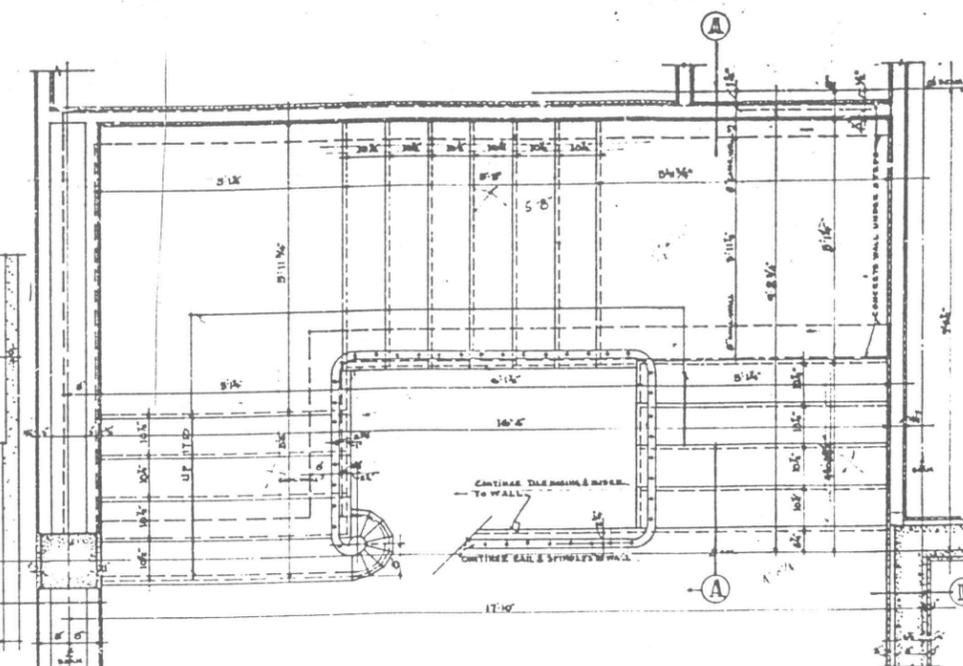
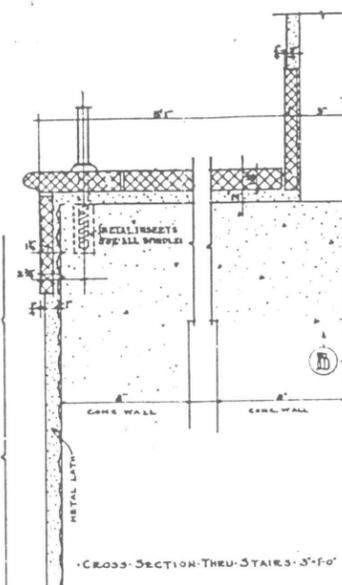
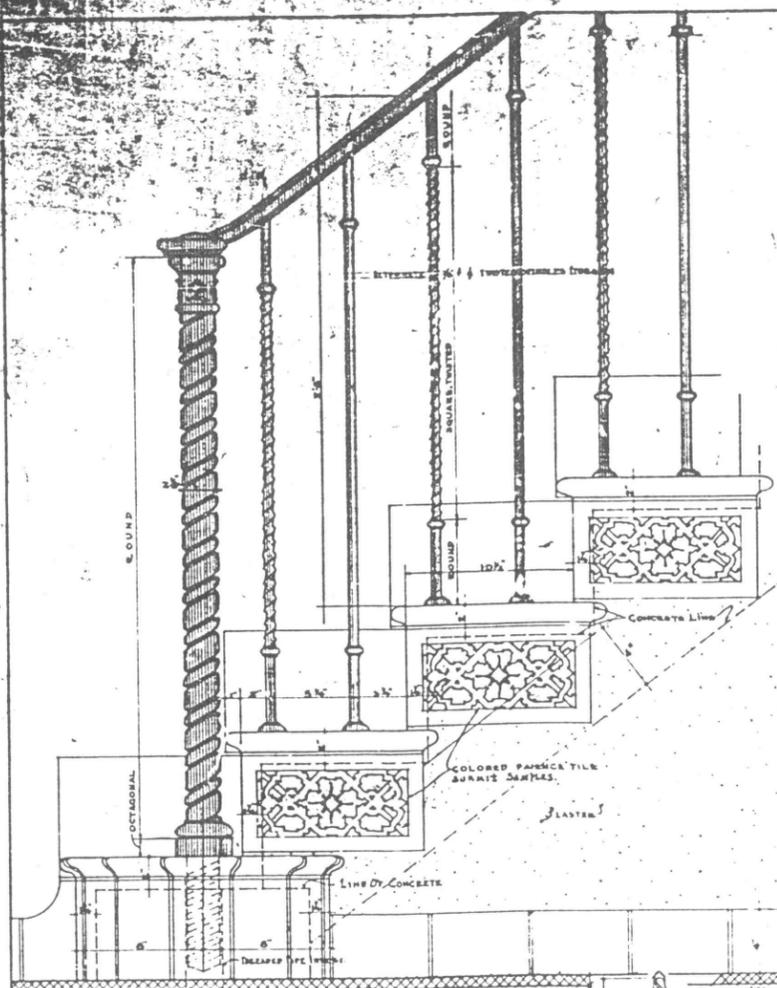
WEST ELEVATION COURT #2



REAR ELEVATION OF SERVICE WING

Drawn by	W. H. S. S.	NAVY DEPARTMENT	BUREAU OF YARDS & DOCKS
Traced by	W. H. S. S.	U.S. NAVAL AIR STATION	
Checked by	W. H. S. S.	SUNNYSVALE CALIF.	
Sup. Draw. Section	Chief Draw. Engineer	BACHELOR OFFICERS QUARTERS	
		ELEVATIONS & SECTION	
Sheet No.	687A	Project No.	115637

1207 10 7



NOTE: FLOOR DESIGN IN BRONZE TILE, IMITATED WITH FAIENCE TILE DESIGN, BORDER & BACK IN RESINABLE MARBLE WITH A VERY DARK GREEN AND A 1/2" IN SPACES FROM PAPER AND LAYERS FOR (CONCRETE) PLASTER BE SUBMITTED TO THE ARCHITECT FOR APPROVAL.

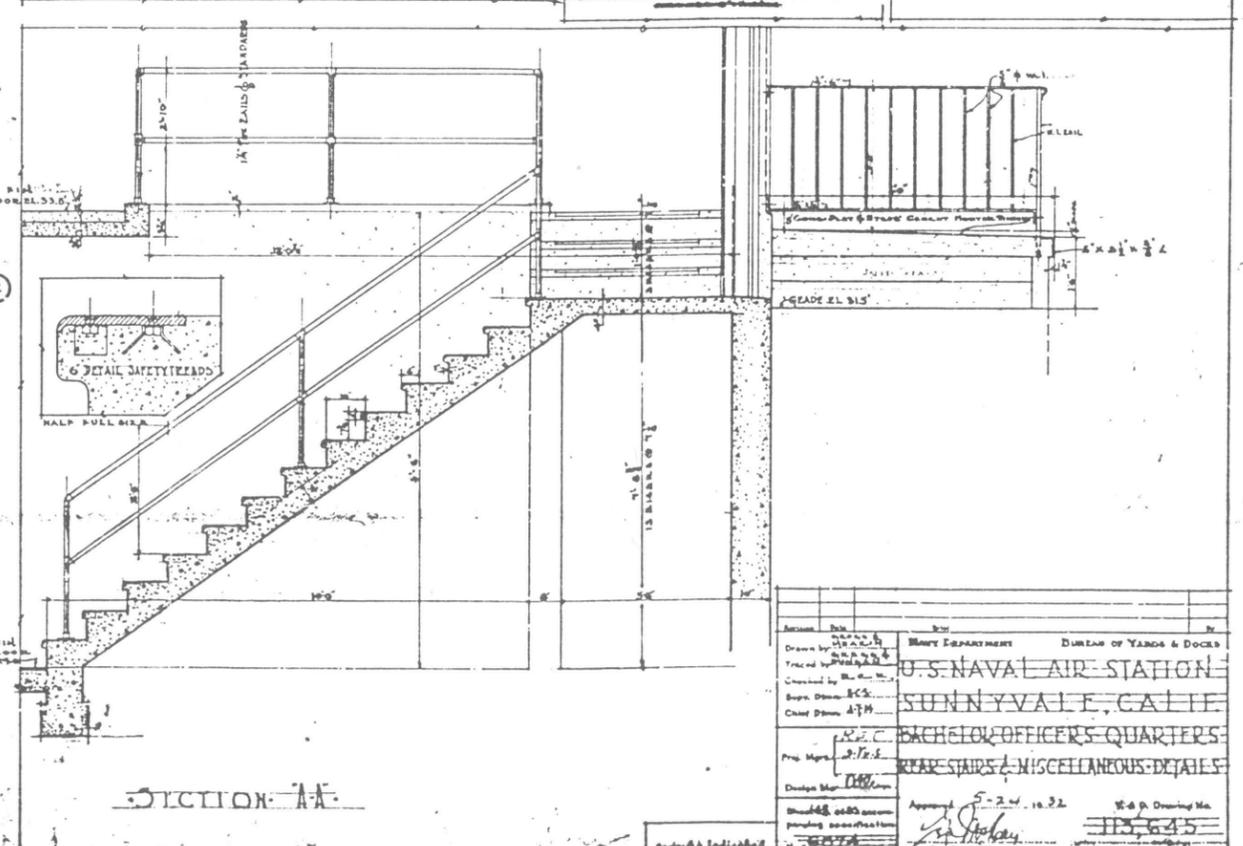
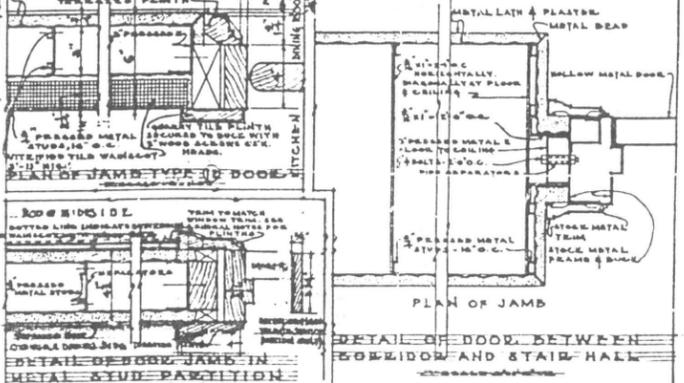
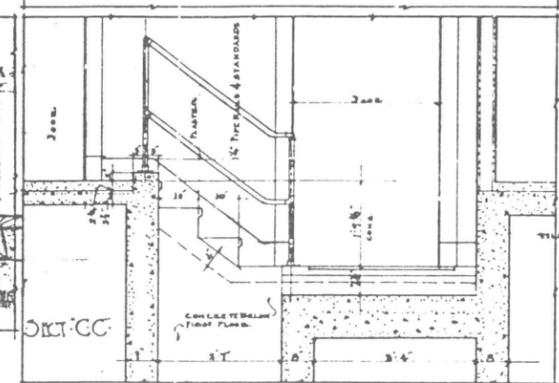
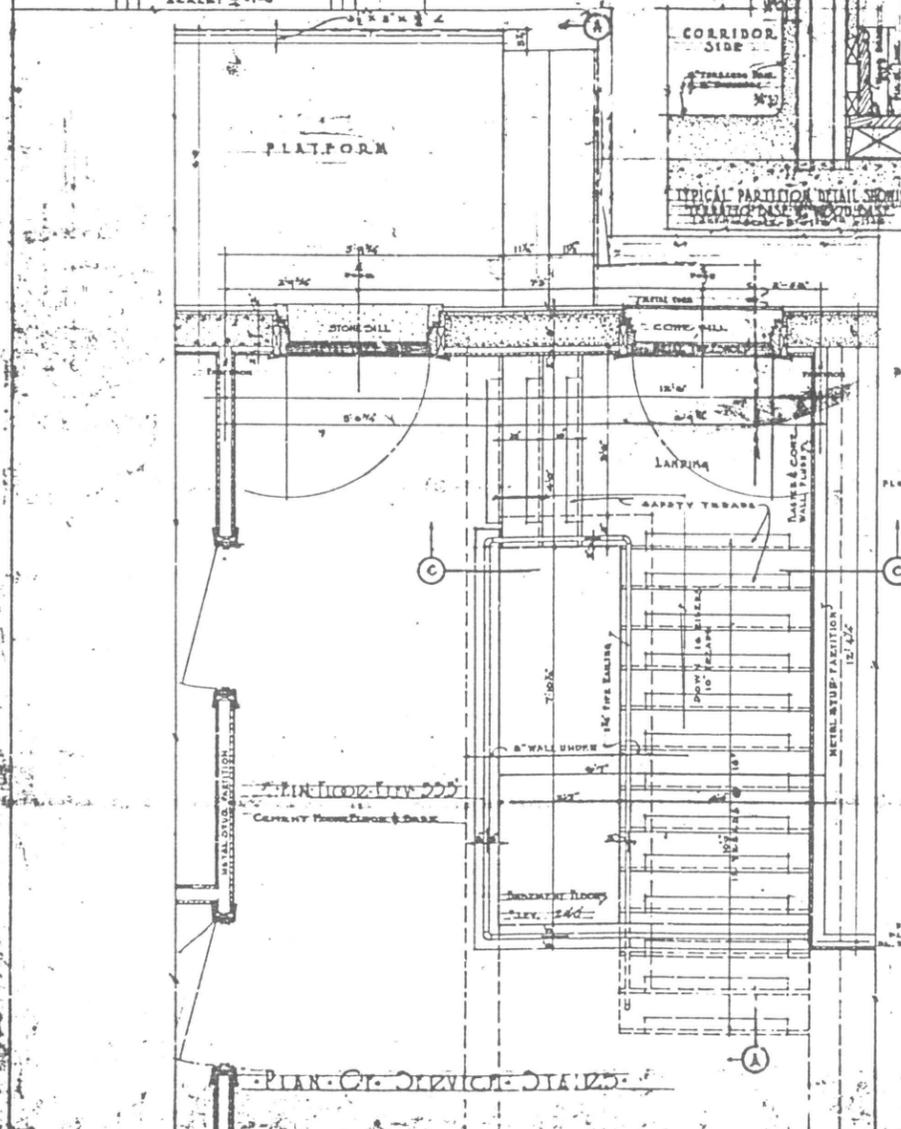
Drawn by	Checked by	Sup. Draw	Chief Draw
Design No.	Scale	Approved	V. & D. Drawing No.
Sheet No.	Project No.	113644	

NAVY DEPARTMENT BUREAU OF YARDS & DOCKS  
 U.S. NAVAL AIR STATION  
 SUNNYVALE CALIF.  
 BACHELOR OFFICERS QUARTERS  
 MAIN STAIR DETAIL

1202-30-14

PLAN  
DETAILS OF AREAS AT  
DINING ROOM TERRACE  
SCALE: 1/4" = 1'-0"

PLAN  
DETAIL OF ACCESS DOORS



Drawn by	W.A.C.	NAVY DEPARTMENT	DIVISION OF YARDS & DOCKS
Traced by	W.A.C.	U.S. NAVAL AIR STATION	
Checked by	W.A.C.	SUNNYVALE CAFE	
Sup. Drawn	E.C.	BACHELOR OFFICERS' QUARTERS	
Chief Draw	A.T.M.	STAIRS & MISCELLANEOUS DETAILS	
Proj. Mgr.	A.T.M.		
Design Mgr.	A.T.M.		
Checked	W.A.C.	Approved	5-2-22
Drawn	W.A.C.	W.G.P. Drawing No.	135645

1202-30-15

Shenandoa Plaza Historic District  
Building 17 Re-Use Guidelines  
Moffett Federal Air Field, California

4. Current Condition Photographs (2000)



*North Facade*  
Building 20  
Moffett Field



South Facade  
Building 20  
Moffett Field



West Wing Viewed From Southwest  
Building 20  
Moffett Field



Front Entry Doors  
Building 20  
Moffett Field



Exterior View of Non-contributing Porch Enclosure (west)  
Building 20  
Moffett Field



Balcony - Second Floor Suite  
Building 20  
Moffett Field



Typical Collector Box  
Building 20  
Moffett Field



Exterior View of Non-contributing Porch Enclosure (east)  
Building 20  
Moffett Field



Bathroom Window - First and Second Floor Suites  
Building 20  
Moffett Field



Typical Window  
Building 20  
Moffett Field



Detail of Double Hung Metal Windows  
Building 20  
Moffett Field



Concrete Beam Ceiling with Faux Wood Painting - First Floor Lobby  
Building 20  
Moffett Field



Main Lobby  
Building 20  
Moffett field



Dining Room  
Building 20  
Moffett Field



Typical Bedroom  
Building 20  
Moffett Field



West Stair Enclosure  
Building 20  
Moffett Field



Typical Marble Bathroom Partitions  
Building 20  
Moffett Field



Typical Vanity  
Building 20  
Moffett Field



Metal Grille - First Floor Lobby  
Building 20  
Moffett Field



Typical Corridor Wall Texture  
Building 20  
Moffett Field



Typical Bedroom and Living Room Door  
Building 20  
Moffett Field



Non-contributing Porch Enclosure  
Building 20  
Moffett Field



Detail of Concrete Capital - First Floor Lobby  
Building 20  
Moffett Field



First Floor Lobby  
Building 20  
Moffett Field



Faiance Tile - First Floor Enclosure  
Building 20  
Moffett Field



Metal Fire Door - First Floor Stair Enclosure  
Building 20  
Moffett Field



Non-contributing Alterations - First Floor East of Lobby  
Building 20  
Moffett Field



Kitchen  
Building 20  
Moffett Field



Existing Window Modified for Emergency Exit  
Building 20  
Moffett Field