The Frank Valley Military Reservation

Matthew W. Kent

Reservation Established

Beginning in 1921, 9.18 acres of land was to be purchased north of the small coastal community of Muir Beach, in Marin County, California, approximately 22 miles northwest of San Francisco. The site was approved for acquisition by TWX, Office of the Chief of Engineers, file F51SF MA, to the District Engineer, Second District, San Francisco, dated May 9, 1921. The initial tract (8.93 acres) was purchased by the government on June 27, 1923, for the construction of fire control stations. An additional 0.25 acres was purchased by the government on February 25, 1941, for the construction of a road/cable-right-of-way.(1)

Base End Stations

Since high ground was available to provide the necessary elevation for the new stations, observation towers were not employed anywhere in the harbor defenses of San Francisco. Dug-in type stations were deemed ideal for the local terrain, being practically invisible from the sea and air and providing protection for personnel and material. Four small reinforced-concrete dug-in observation/spotting "base end stations" would be built on the reservation starting in 1941.

B^3S^3 Battery Alexander was constructed of reinforced concrete and provided with a 1-inch-thick steel dome for front and overhead protection. (Fig. 1)

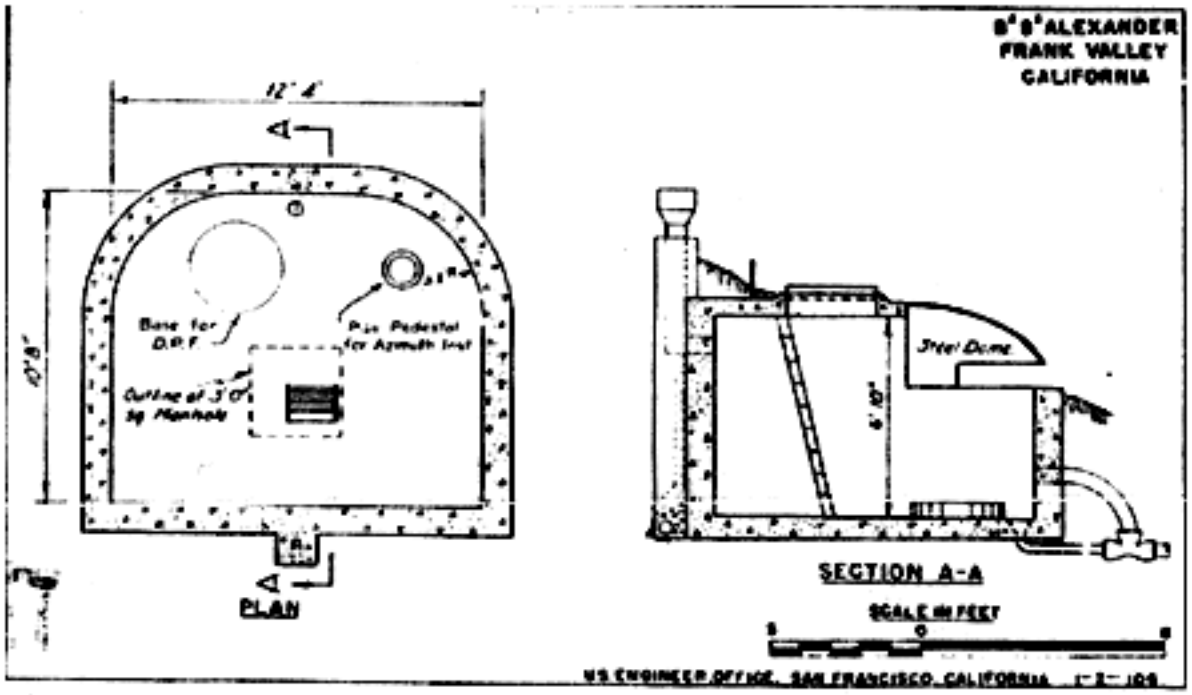

Fig. 1. B^3S^3 Battery Alexander. *NARA*

The station measures 10' 8" by 12' 4," with a concrete base that mounted an M2 Class-5 depression position finder (DPF), and a pipe pedestal for an M1910 azimuth instrument. The elevation of the instrument pedestal was 486.80 feet M.L.L.W. The observation slot was protected with a movable, one-piece, heavy-steel counterbalanced visor. The station was concealed by earth cover, backfill, and a camouflaged steel dome. It is assumed that one prison-type folding bunk rack was mounted on the rear wall for the crew. Entry to the station was through a manhole cover in the roof via a slanted steel staircase with flat treads. Two men were required at all times. A vent a few feet from the ceiling in the middle of the rear wall provided interior ventilation. While permanent, this station was not provided with any heat nor any connections to existing water or sewer lines, nor was a latrine provided. Data transmission was by a Signal Corps telephone. Electric power was provided by a nearby power house. It is believed that B^3S^3 Battery Alexander was transferred to the coast artillery on November 14, 1941.(2)

In 1943, with the construction of a new modern Series 200 6-inch battery at Fort Miley, this station was reassigned as B^5S^5 Battery Construction No. (BCN) 243.(Fig. 2) The station now in use for BCN 243 was transferred to the coast artillery on November 29, 1943, at a new total cost of $3,224.79. It is unknown what additional work may have been performed at that time.(3)

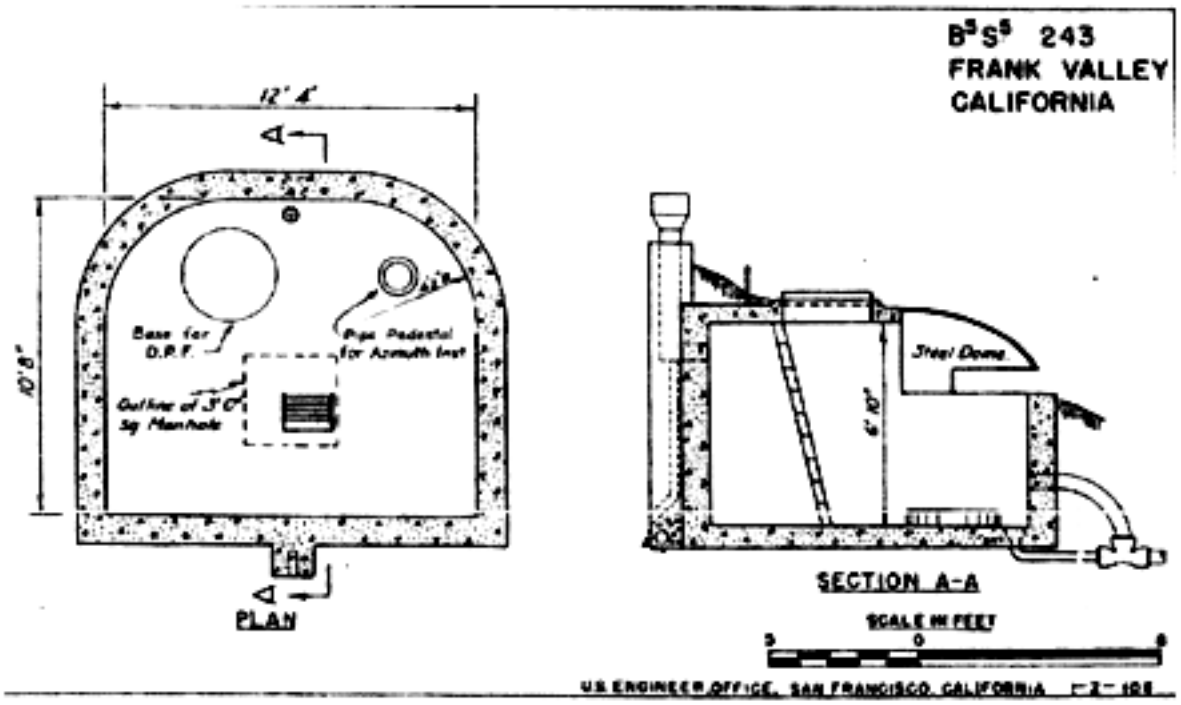

Fig. 2. B^5S^5 BCN 243. *NARA*

B^4S^4 Battery Wallace (Fort Barry) (Fig. 3) measured 10' 8" by 12' 4".(4) One prison-type bunk rack was provided. B^2S^2 Battery Smith/Gutherie. (Fig. 4) had the same measurements and was also provided with a prison-type bunk mounted on the rear wall. These two stations were of similar reinforced-concrete construction, with 1-inch-thick steel domes for front and overhead protection. Both were concealed with earth cover, vegetation, and a camouflaged steel dome. Entrance to the stations was through manholes and slanted steel staircases with flat treads from the roof. Two men were required at all times in each station. While the stations were permanent, they were not provided with heat nor connections to water or sewer lines, nor were latrines provided. Data transmission was by Signal Corps telephones. Electric power was provided by the nearby power house.

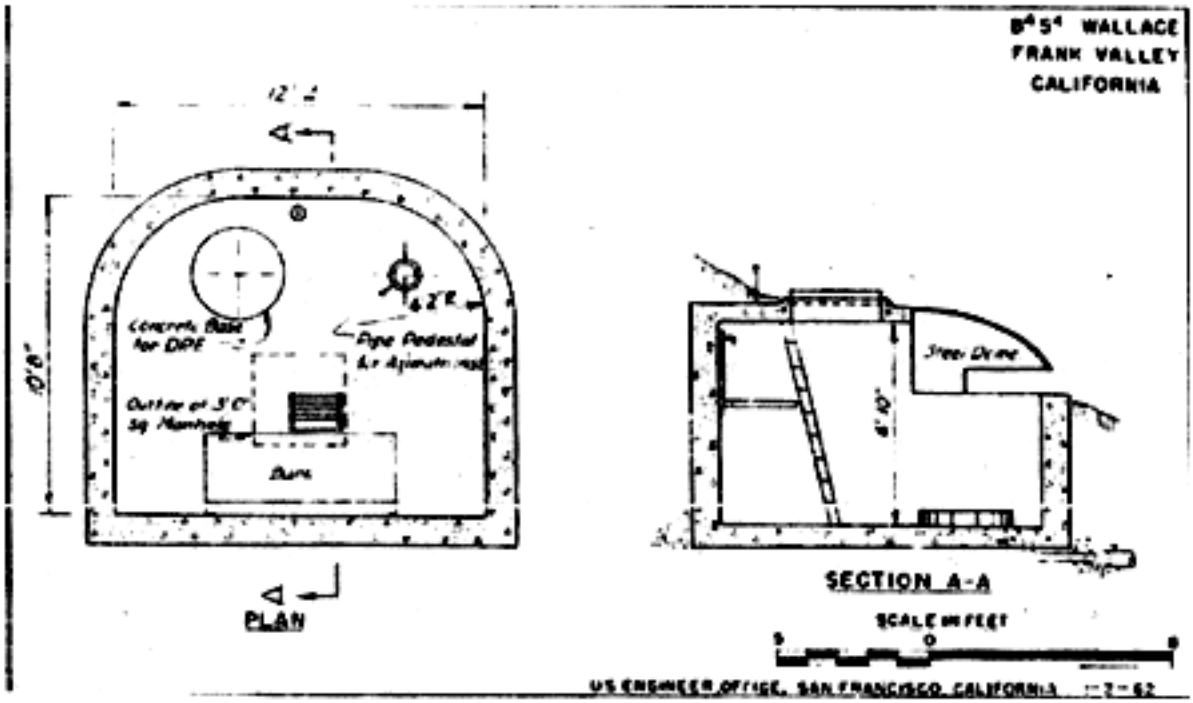

Fig. 3. B^4S^4 Battery Wallace. *NARA*

Both stations contained concrete bases for DPFs. B^4S^4 Battery Wallace had a M1 DPF (Class-5 DPF, serial No. 129, with an axis of 485.77 feet M.L.L.W.; B^2S^2 Battery Smith/Gutherie had a Lewis M1907 DPF, serial No. 240, at 480.30 feet M.L.L.W.). Both had pipe pedestals for M1910 azimuth instruments. The observation slots for both stations were protected with a movable, one-piece heavy-steel counterbalanced visor.

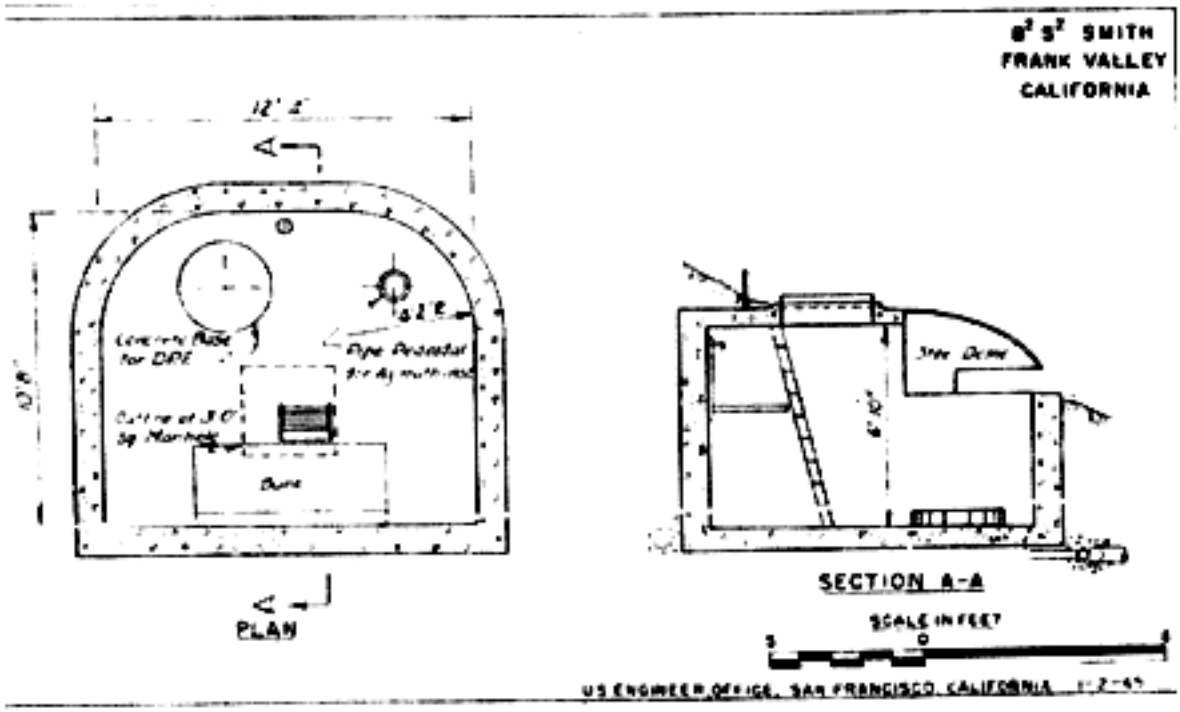

Fig. 4. B^2S^2 Battery Smith/Gutherie. *NARA*

Both stations were transferred to the coast artillery on November 14, 1941, B^4S^4 Battery Wallace for $3,044.56 and B^2S^2 Battery Smith/Gutherie for $3,182.80.(5)

The final station to be built in 1941 would be used as a fire control and spotting station for the North Channel Mine Field (Mines I), which consisted of 10 mine groups, 28 - 37, each with 13 M-4 ground-type submarine mines.(6) Designated M3, Mines I, (Fig. 5) this dug-in station was also constructed of reinforced concrete and provided with a 1-inch-thick steel dome for front and overhead protection. This 10' 8" by 12' 4" station was outfitted with a concrete base for a Lewis M1902 DPF, serial No. DMM 242. The elevation of the instrument axis was 480.68 feet M.L.L.W. The observation slot was also protected with a movable, one-piece heavy-steel counterbalanced visor. The station was concealed with earth cover and backfill and camouflaged with vegetation.

Two personnel were required at all times and one prison-type folding bunk rack was provided for the crew, mounted on the rear wall of the station. Entrance was through a manhole cover and the same type slanted steel staircase. While also permanent in nature, this station was also not provided with any heat nor any connections to existing water or sewer lines, nor was a latrine provided. Data transmission was by Signal Corps telephone and electric power was provided by the nearby power house. M3, Mines I, was built for $2,845.09 and was transferred to the coast artillery on November 14, 1941.(7)

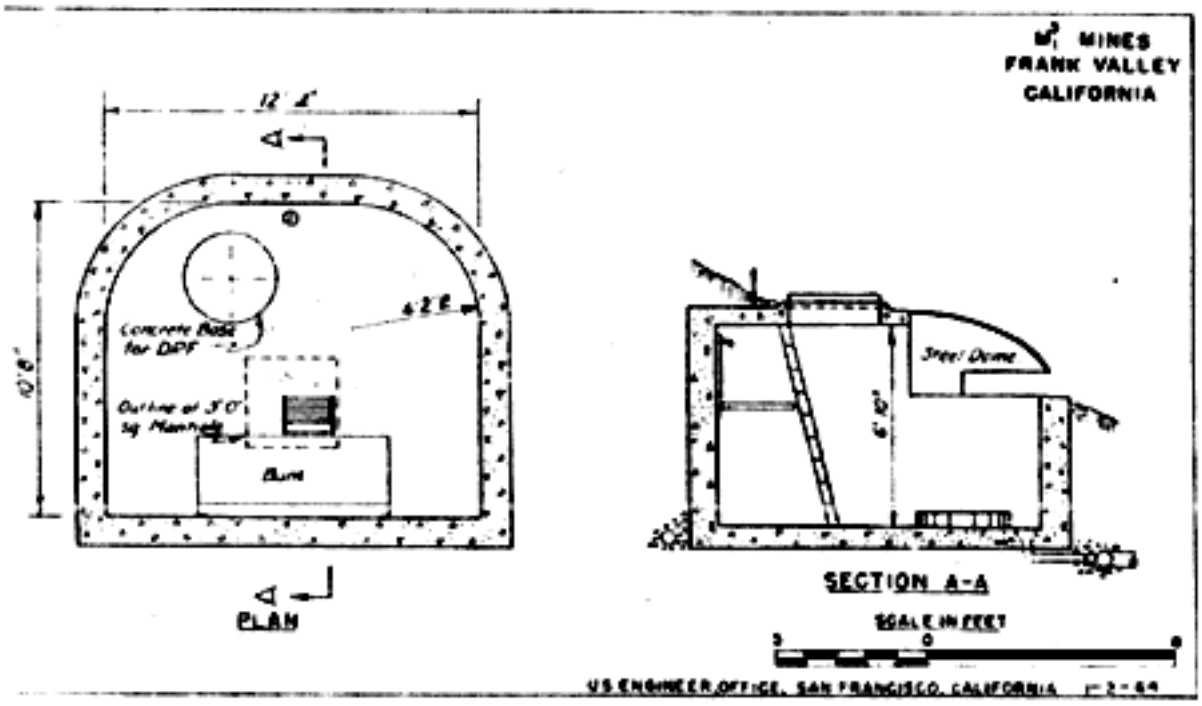

Fig. 5. M3, Mines I. *NARA*

The station was uncovered, raised, and relocated in a new excavation, reoriented, and at a higher elevation in July 1943. All backfill surrounding the station was replaced and the structure recamouflaged in its new location 9.02 feet higher. The cost of the reorientation was $2,096.48, with the station transferred again to the coast artillery on January 8, 1944. This work was referenced as Job No. Frank Valley FS-1, Dir Cons. #FS1051 Dir. Ref., in an OCE letter dated 26 May 43. Sub: Const. Pert. To Sub. Mine. Proj., H.D.S.F., file C of E 663 (San Francisco) Ref. Cm39872 SPEKM.(8)

In 1944, the station was wired with #14 R/L in ¾" E.M.T., and connected to the power house on the reservation by direct buried cable. Power to the station was furnished by two 3 kVA, 125 v genera-

tors in the power house. The station was also outfitted with a Type CSF-1 light fixture, with a Crouse-Hinds power distribution panel, electrical lines, conduit, and associated outlets at an approximate cost of $171.72 for wiring. (9) It is assumed that all fire control stations on the reservation had this work performed in 1944 with the addition of the new power house.

Power House

Authorization for electric power for equipment and lighting in base end stations at all fire control sites, except where both commercial and fortification power were available, was generally authorized February 25, 1943.(10)

Beginning in 1944, a reinforced-concrete dug-in underground power house was constructed at the reservation. (Fig. 6) This contained two M5 3 kVA 125 v electrical generators, serial numbers 6523 & 6527, which provided power to the reservation. A commercial power connection from Pacific Gas and Electric (PG&E) was not provided as it was deemed uneconomical. No underground fuel tank was needed, as the generating units had their own fuel tank serviced by personnel from five-gallon gas cans. Power output was 0.1 kW for the power house and 2.05 kW for the other four stations. Power was distributed to the four stations via underground power cable. The power load could be transferred from one generator to the other by throwing a 2-pole wall switch. Floor elevation at the site is 478.00 feet M.L.L.W. This station was concealed with earth backfill and vegetation consisting of barley and rye. Built at a cost of $2,327.71, including the cables and trenching, the power house was transferred to the coast artillery on May 22, 1944.(11)

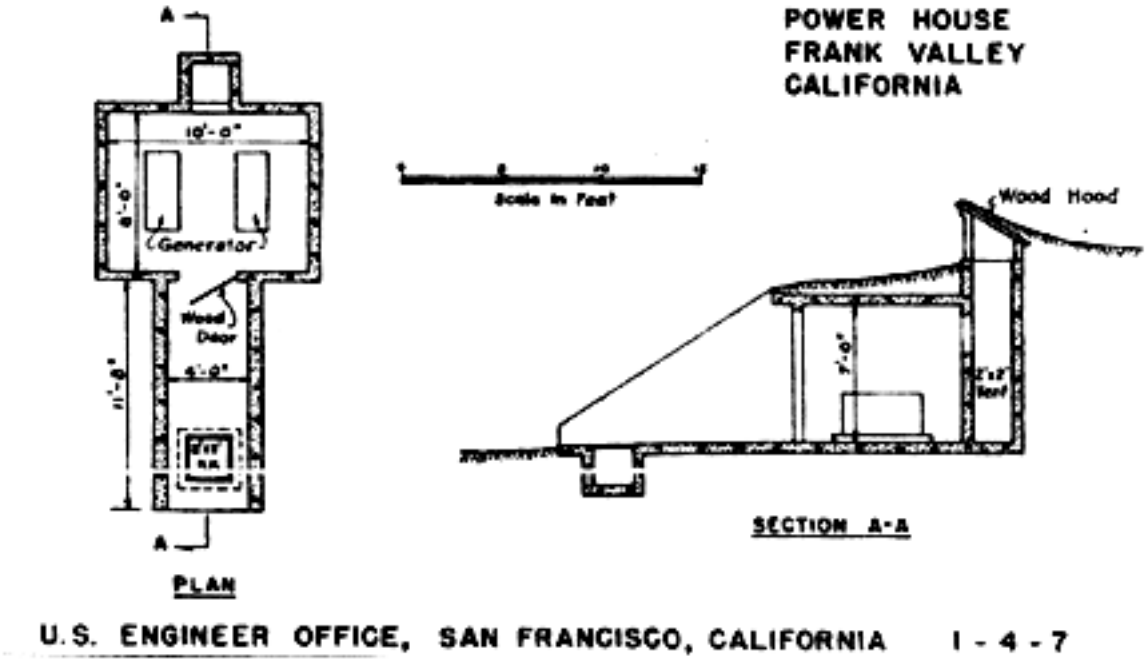

Fig. 6. Frank Valley M.R. power house. *NARA*

Additional Construction

With the harbor defenses on 24-hour alert after Pearl Harbor, the need arose for personnel to live at the outlying military reservations. As of 1942, no provisions were made for housing and messing the troops stationed at these remote reservations north and south of San Francisco. The troops man-

ning the fire control stations lived in the rear of the stations on prison-type folding bunk racks. Several stations were scheduled to receive repeater equipment and the rear rooms would need to be vacated. Since the fire control stations were on small tracts of land adjacent to the tops of hills, tents were not desirable since they could be visible from considerable distances from both the air and sea.(12)

A secret April 15, 1942, letter from Headquarters, Harbor Defense of San Francisco, Office of the Harbor Defense Commander, to the Commanding General, Western Defense Command, Sector, and VII Army Corps, APO #307, San Jose, California, Subject: "Concealed Type Hutments for Outlying Military Reservations," addressed the need for constructing concealed theater-of-operations hutments with messing facilities. Minimum design requirements for the hutments were at least two rooms; one for 16 bunks and the other to provide messing facilities for 16 men. These hutments would be constructed in excavations adjacent to existing slopes in order to provide maximum protection and concealment. A lean-to roof would allow the placing of earth and shrubbery in accordance with existing slopes and natural vegetation for camouflage.(13)

On June 3, 1942, construction was approved for eight concealed hutments for outlying personnel of the Harbor Defenses of San Francisco at an estimated cost of $32,000.(14)

A wood-framed structure measuring 16' x 33' was constructed to house and mess 16 men at the Frank Valley M.R. at a cost of $1,239.(15) It is unknown where on the reservation this barracks structure was constructed.

Supplemental Local Armament

The Frank Valley M.R. was defended by a single M2 .50-caliber antiaircraft machine gun, slightly north of B^5S^5 BCN 243 and identified as ".50-caliber Antiaircraft Gun No. 7." There are no remains of this position at the reservation.(Fig. 7)

Post-War Use

By 1948, with the deactivation of the harbor defenses of San Francisco, the Frank Valley M.R. with its four base-end stations and power house were no longer needed. On October 31, 1951, 9.57 acres was transferred to the Department of the Navy. However, in a November 28, 1952, letter from the secretary of the army, the reservation was withdrawn from transfer to the navy and control was retained by the U.S. Army. Available documentation did not provide a reason for this change.

On May 22, 1959, the San Francisco District, USACE, reported the Frank Valley M.R. as excess to the General Services Administration (GSA). In turn the GSA on June 15, 1960, quitclaimed the reservation to the county of Marin.(16) In 1964, the county of Marin decided to use 8.93 acres of the former reservation as a roadside resting area and viewing point, now identified as the "Muir Beach Overlook."(17) Today the former reservation is part of the Golden Gate National Recreation Area.

The Frank Valley Military Reservation in 2016

The site was inspected by the author on April 4, 2016. The reservation can be accessed from Muir Beach Overlook Road off Shoreline Highway (US Hwy. 1) just above the town of Muir Beach, California. There are no remains of the barracks built on the reservation and no remains of .50-caliber AA Gun No. 7, originally a few feet slightly north of B^5S^5 BCN 243. All four base-end stations are intact, except for their 1-inch-thick steel domes. The steel domes appear to have been removed with a cutting torch, leaving a rough irregular line near the attachment point on the roof of the stations. (Fig. 8) The author assumes that the steel domes were removed sometime after 1948.

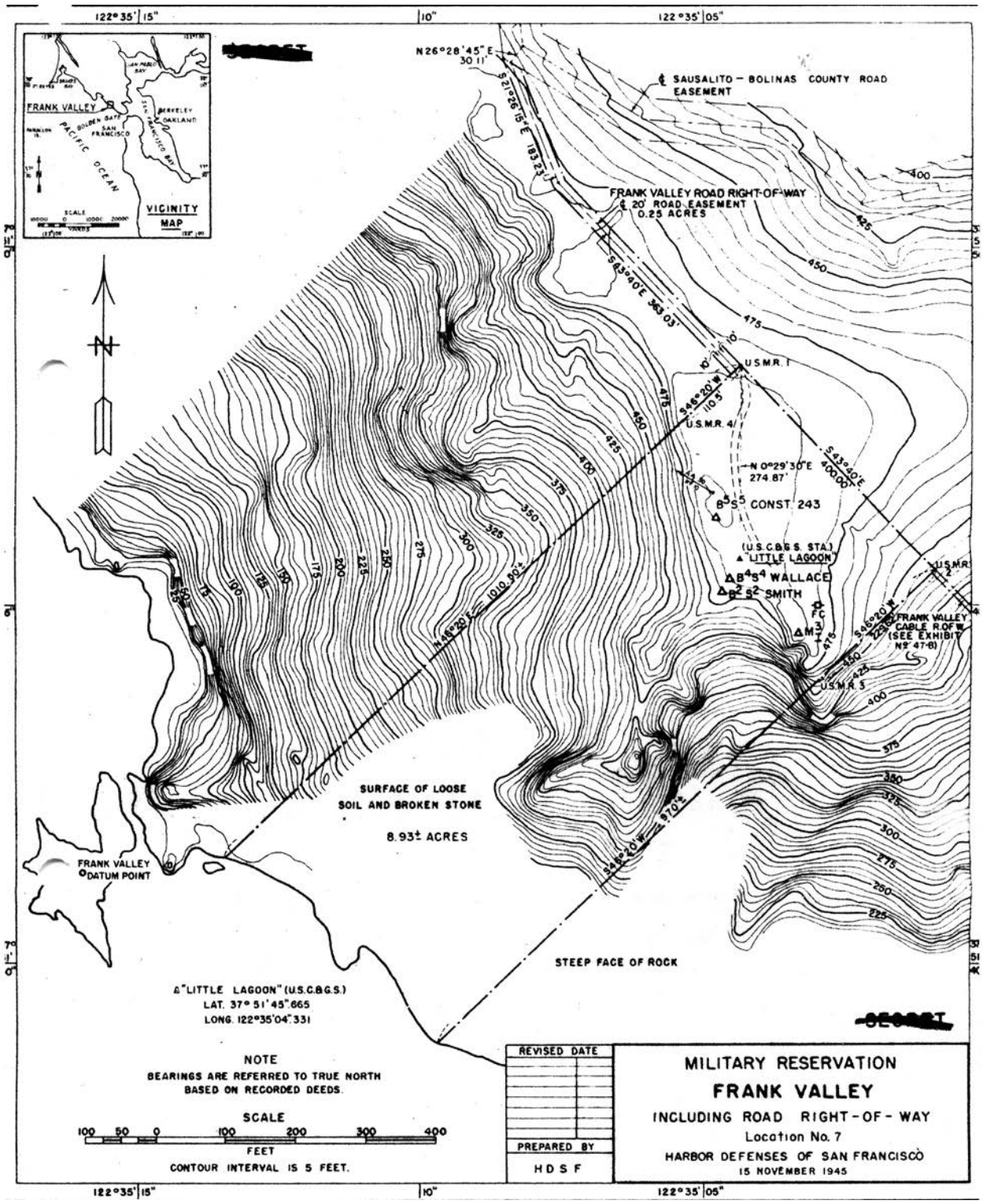

Fig. 7. Map of the Frank Valley M.R., November 15, 1945. *NARA*

All four base-end stations have been stripped clean on both the outside and inside. The manhole covers providing entry to the stations have been completely removed and replaced with metal wire enclosures. (Fig. 9) All the slanted steel staircases have been removed as well. All associated hardware for the movable, one-piece heavy-steel counterbalanced visors for the observation slots, as well as the visors themselves, have been permanently removed. All DPF bases have had their mounting bolts removed and the pipe pedestal mounts for the azimuth instruments have a cap of concrete on top of the mounts.

8. Evidence of cutting torch use. B^2S^2 Battery Smith/Gutherie with remaining portion of steel dome attached to the roof of the station. All photos are by author, April 4, 2016.

9. Metal wire manhole enclosure on the roof of M3, Mines I.

The interior vent for B^5S^5 BCN 243 is now minus the original metal vent cap and the remaining transit pipe vent has been capped with concrete. This station still retains the original pipe pedestal mount for an azimuth instrument. (Fig. 10) All associated equipment mounting points have been removed and the interior of the station is bare. The base-end station for B^4S^4 Battery Wallace still retains its pipe pedestal mount (Fig. 11), while B^2S^2 Battery Smith's pipe pedestal mount has been completely removed from the station. (Fig. 12) No pipe pedestal mount was installed in the M3, Mines I station. (Fig. 13) The interiors of these stations are also bare.

The dug-in power house located on the reverse slope behind the base-end stations is still intact, minus the entry door to the station and associated wiring and electrical junction boxes inside. (Fig. 14) There are no remains of the two M5 generators that were installed in the structure. Of note, the RCW shows a wooden hood for the vent of the station. Upon inspection by the author, it was discovered that the vent for the power house is in fact entirely constructed out of concrete. (Fig. 15)

10. B^3S^3 Battery Alexander / B^5S^5 BCN 243.

11. B^4S^4 Battery Wallace with pipe pedestal mount.

12. B^2S^2 Battery Smith/Gutherie with pipe pedestal mount removed.

13. M3, Mines I.

14. Entrance to the dug-in power house.

15. Concrete vent and hood for the dug-in power house.

Due to the remote location of the Frank Valley M.R., the stations of the reservation are relatively devoid of graffiti. It is rather unfortunate that the base end stations have been altered from their original construction, as these stations would have ranked among the finest surviving examples located in Marin County.

Endnotes

1. The additional .25-acre tract was approved for acquisition by the 17th Indorsement to secret letter, Hq. 9th Corps Area, file 665.1, HD SF (Sig), to the Adjutant General, October 13, 1936, Subject: "Fire Control Construction, Project No. CSO-9-53, Harbor Defenses of San Francisco," with 1 Inclosure, cited in "Supplement to Harbor Defense Project, Harbor Defenses of San Francisco, 15 November 1945," Section III, Miscellaneous, pp. 29-30, 32. NARA, RG 407, Entry 366. (All NARA references are to College Park, MD.)
2. War Department, Report of Completed Works (RCW) - Seacoast Fortifications Fire Control Station, Part II, B^5S^5 243, corrected to September 1943, NARA, RG 77, Entry 1007.
3. War Department, RCW - Seacoast Fortifications Fire Control Station, Part II, B^5S^5 243, corrected to April 1944, NARA, RG 77, Entry 1007.
4. War Department, RCW - Seacoast Fortifications - Fire Control Structure, Form 2, B^4S^4 Wallace, corrected to November 14, 1941, NARA, RG 77, Entry 1007.
5. War Department, RCW - Seacoast Fortifications - Fire Control Structure, Form 2, B^2S^2 Smith, corrected to November 14, 1941, NARA, RG 77, Entry 1007.
6. "Supplement to Harbor Defense Project, Harbor Defenses of San Francisco, 15 November 1945," Annex D Underwater Defenses, p. 3.
7. War Department, RCW - Seacoast Fortifications - Fire Control Structure, Form 2, M3, Mines 1, corrected to November 14, 1941, NARA, RG 77, Entry 1007.
8. War Department, RCW - Seacoast Fortifications – Mines Fire Control Station, Part II, M3 Mines 1, corrected to September 1943, NARA, RG 77, Entry 1007.
9. War Department, RCW - Seacoast Fortifications, Part II, M3 Mines 1, corrected to April 1944, RG 77, Entry 1007.
10. Secret letter, The Adjutant General's Office, file AG 413.68 (1-25-43) OB-S-SPRMP, to the Commanding General, Western Defense Command, Subject: "Power for Harbor Defense Base End Stations." Cited in "Supplement to Harbor Defense Project, Harbor Defenses of San Francisco, 15 November 1945," Annex B, Fire Control, Paragraph 11, Power for Base End Stations, pp. 55-57, NARA, RG 407, Entry 366.
11. War Department, RCW - Seacoast Fortifications – Power Station for Fire Control Stations, Part II, Modified, Power House (2-Unit), corrected to April 1944, NARA, RG 77, Entry 1007.
12. Letter, HQ, HD San Francisco, Office of the HD Commander, Fort Winfield Scott, California, to CG, Western Defense Command and VII Army Corps, San Jose, California, Subject: "Concealed Type Hutments for Outlying Military Reservations," April 15, 1942, NARA, RG 77, Entry 1007.
13. Ibid.
14. Letter, Office of the Chief of Engineers, File No.: 600.1 (San Francisco), Subject: "Concealed Type Hutments for Outlying Military Reservations," June 3, 1942, NARA, RG 77, Entry 1007.
15. Letter, Office of the Chief of Engineers, File No. 600.1 (H.D. San Francisco) SPEOT, to W.O'B. Hillman, Major, CE, Assistant, Operations Branch Construction Division, subject: "Concealed Type Hutments for Outlying Military Reservations," June 5, 1942, NARA, RG 77, Entry 1007.
16. Final Project Map, Office of the Division Engineer, South Pacific Division, Frank Valley Military Reservation (Harbor Defenses of San Francisco), Drawing FB 284.
17. "A View with a History," *Daily Independent Journal*, San Rafael, CA, June 20, 1964, p. 36.