

FORT HUACHUCA, CAVALRY STABLE
(Building No. 30028)
(Building No. 90)
(Building No. 126)
(Building No. 3039)
Clarkson Road
Sierra Vista vicinity
Cochise County
Arizona

HABS AZ-210-F
AZ-210-F

HABS
AZ-210-F

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN BUILDINGS SURVEY
National Park Service
U.S. Department of the Interior
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Location: Building 30028 is located along the west side of Clarkson Road, north of the intersection with Hungerford Avenue. Just south of end Building 30031, it is the second building from the north of seven cavalry stables aligned in a row on the site. The complex is located at Fort Huachuca (Sierra Vista vicinity), Cochise County, Arizona. The building and its complex lie within the Quartermaster area (Figure F.1).

USGS Quadrangle, Fort Huachuca, Ariz., 7.5 minute series, 1958, photo-revised in 1983

This building is bounded by the following UTM coordinates:

Zone 12	Northing	Easting
NW	3491151.49	559988.06
SW	3491141.98	559984.71
NE	3491129.48	560051.62
SE	3491120.00	560048.27

Date of Construction: 1916.

Designer: Quartermaster Corps.

Builder: United States Army.

Present Owner: U.S. Department of the Army, Fort Huachuca.

Present Use: General-purpose storage.

Significance: Building 30028 is an integral component of Fort Huachuca's cavalry stable complex. The seven cavalry stables at Fort Huachuca were completed in 1916 utilizing a standardized Quartermaster Corps plan. The structures are eligible for listing on the National Register of Historic Places due to their association with the 10th Cavalry and the Punitive Expedition into Mexico in 1916-1917 (Criterion A) and because they represent the only known examples of stables constructed using the Quartermaster Corps plan no. 291 (Criterion C).

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PART I. HISTORICAL INFORMATION

A. Physical History

1. Date of erection: According to U.S. Army Quartermaster Corps Form No. 173a (1916), the initial property record card, this building and the other six cavalry stables were completed 5 January 1916 (Figure F.2; HABS No. AZ-210-F-5).

2. Architect: The Office of the Constructing Quartermaster Corps (O.C.Q.M.C.), provider of standardized plan no. 291, as indicated on Q.M.C. Form No. 173a. In 1916, this corps was one of five divisions of the Office of the Quartermaster General in Washington, D.C. (Chattey 1998:2).

3. Original owner, occupants, uses: The owner has been the U.S. Army. The known original occupant/user was the 10th Cavalry and its mounts. Very little information has been found about subsequent tenants, although the building's uses can be determined. The building still had horses in 1941 (Parkhurst and Thiel 2005). It was still classified a stable in April 1951, but probably became a storage facility later that year when drawings were issued for concreting its floor (Post Engineer Office 1951; U.S.A.C.E. 1951). The building was classified a storage facility by 1955 (Post Engineer Office 1955). Building 30028 currently serves as a nearly vacant storage facility for the Directorate of Installation Services (DIS) housed in adjacent Building 30031 to the north. Building 30028 will be retained, with no use determined at the present time.

4. Builder, contractor, suppliers: Built by the U.S. Army. Information about the contractor or suppliers has not been located. The photograph on Q.M.C. Form No. 173a shows the building soon after construction with no laborers present, unlike photographs of the other stables. Apparently, there is a pile of hay bales near the south façade (Figure F.2). It was Quartermaster Corps policy for Army buildings to be erected and repaired by the troops (Chattey 1998:2).

5. Original plans and construction: Office of the Constructing Quartermaster Corps, standardized plan no. 291. This plan could not be found at the National Archives; thus, it is not known whether its application on this post followed the standard or was a local modification to accommodate topographic and climatic conditions at Fort Huachuca (Chattey 1998:3).

6. Alterations and additions: All cavalry stables in the complex, including Building 30028, have been modified to a greater or lesser extent. Modifications in this building are moderate. In spite of the addition of new door openings and non-original doors, the exterior retains much of its essential character, and the building remains an integral, contributing component of the whole complex. Alterations appear to have occurred when the building was first converted to a general-purpose warehouse, probably in 1951, later in 1973, and again in 1991. Today only the slab remains of a large, open, storage shed addition, built on the north façade in 1973.

Exterior modifications include original door replacement, the addition of new personnel and sliding door openings, and universal window grill installation. Concrete stair features have been built to serve personnel doors on the north and west facades. Interior modifications include former storage room alterations, stall rail removal, wall and ceiling cladding changes,

addition of concrete flooring, and the construction of an office and latrine in the northwest corner. Some of the original structural system remains visible in an open area to the rear of the building. Study of this building was limited by an inability to access the northeast corner room due to hazardous material storage.

As built in 1916, at its east end on either side of the aisle, the stable had a forage and grain room and a saddle room (U.S.A.Q.M.C. 1916). In 1941, as shown on Q.M.C. Form No. 117, there was a saddle shop to the north, and to the south an enclosure partitioned into a harness room, tool room, and forage and grain room (Figure F-S.1). Currently, the inaccessible, gypsum-wallboard-clad north room measures 47 ft along the aisle. It is unknown how much of the original saddle shop is retained inside. A south storage room remains, although partitions are missing and it is altered.

A 1951 drawing for Building T-3039, (an earlier number for 30028), calls for the addition of reinforced concrete flooring and lighting throughout the stable area of the building (Figure F-S.3; Post Engineer Office 1951).

Apparently, when the building was modified to a warehouse, a system of wainscot-level horizontal boards with paper-backed gypsum wallboard above was installed on the interior face of the former open-frame perimeter walls. Some of this remains at the west end of the building. In 1991, gypsum wallboard was installed over the early wall cladding on most interior walls (U.S. Army Form 2877). Probably at the same time, a suspended acoustic ceiling was added throughout most of the building.

B. Historical Context

The United States Army completed the construction of seven cavalry stables at Fort Huachuca, Arizona, in January 1916. The stables housed horses and mules used by members of the 10th Cavalry popularly known as the Buffalo Soldiers. The mid-1910s saw a military buildup along the United States-Mexican border, as internal Mexican political problems escalated. As intense fighting took place in northern Sonora, Fort Huachuca personnel patrolled the border, protected local residents and sought to prevent smuggling activities. Members of the 10th Cavalry participated in the 1916-1917 Punitive Expedition, the last major use of cavalry forces by the United States Army.

The seven stables were likely one of the last cavalry stables complexes built in the United States. The Punitive Expedition saw the first use of motorized vehicles by the military, and afterward the Army turned away from horse-mounted soldiers. The 10th Cavalry left Fort Huachuca in 1931; however, the stables remained in use until at least 1941. They were later used for other purposes including storage and office space (Parkhurst and Thiel 2005).

To reinforce the formality that was traditional at historic, American military forts, stables tended to be repetitious units arranged in an orderly pattern not far from the barracks of the troops. Such repetition could be assured by the use of a standardized plan. Fort Huachuca's seven cavalry stables were located in the expanded Quartermaster area. Aligned in a row along the railroad right-of-way, the buildings constituted a property of identical buildings, each having a simple gable-roofed form (minus monitor) generated from Quartermaster Corps plan no. 291. The stables were of the straight, double-loaded, central corridor type with identical, un-gated stalls lining the sides (Parkhurst and Thiel 2005).

PART II. ARCHITECTURAL INFORMATION

A. General Statement

1. Architectural character: Like the other six stables in this complex, Building 30028 is distinctive for its simple morphology, a form most suited to its original function, the stabling of seventy-eight cavalry mounts. Generated from an elongated rectangular footprint, its walls arise punctuated by a regular array of double-hung and square windows, and its cap is a low-pitch, gabled roof. Although walls are now clad inside, the visible original posts and roof framing system remind the viewer that the structural system is an elegant, although rustic, integration of repetitious components (HABS No. AZ-210-F-1).

The prototypical 1916 cavalry stable was an elongated, gable-roofed building with concrete foundations and a frame bearing wall system with interior posts installed along a central aisle that supported repetitive, exposed roof framing. Exterior walls were board and batten, and roofing was corrugated metal. There were three door openings, one on each gable end and one on the north side wall to allow mounts access into the paddock. Ramps were provided where needed. Readable photographs of the main entry doors alone can be found, showing a pair of swinging, wood-panel doors with one light above. Fenestration included six-over-six double-hung windows for storage rooms near the east end and an array of square, six-light windows to illuminate individual stalls.

Inside, on either side of the central aisle at the east end, were a forage and grain room and a saddle room. These rooms had concrete floors plus vertical board siding along the aisle and horizontal wood sheathing inside. The end walls of each room, which formed one side of an adjacent stall, was reinforced by thicker, horizontal, board sheathing. Each room had two panel doors on the aisle and ceilings were board and batten.

The rest of the building was devoted to the stabling of horses and mules in repetitive, double-stall bays defined by the wood posts. Here the walls were unfinished with exposed framing. There was no ceiling other than the roof framing clad in corrugated metal. The floor was dirt. Stall rails were framed into the back of each post, and there were no gates at the aisle. Mangers were attached to walls where animals were tethered.

2. Condition of fabric: The overall structural condition of Building 30028 is sound in spite of its vintage. Its present storage use no doubt prompts vigilance concerning stabilization, especially from water intrusion. Its foundations and framing are largely intact, due to its initial good workmanship and durable materials. Its exterior cladding is weathering and currently is in fair-to-poor condition.

B. Description of Exterior

1. Overall dimensions: Building 300248 is 219 ft, 5 ½ inches long by 30 ft, 4 inches wide. The walls are approximately 10 ft, 8 inches high from the top of the stem wall to the top of the wall plate. The gable height is approximately 18 ft.

2. Foundations: Foundations are hand-poured, board-formed concrete and comprise an 8-inch-thick stem wall. It is unlikely there is any steel reinforcing in this foundation. Due to the site slope, the stem wall is not visible at the east end of the building. It is exposed along the

entire west façade, much of the south façade, and most of the north façade except the east 2 ft, 6 inches. In the northwest corner, the foundation shows 4 ft, 2 inches from the asphalt pavement to the bottom of the board siding. Its hand-poured quality is seen in occasional voids and seams from uneven board placement. The stem wall is painted tan to match the current color of the walls. The stem wall is currently in fair condition with some cracks, abrasion, and corner deterioration. There is no sign of major structural cracking. Where the wall has deteriorated or in voids, it can be seen that a large stone aggregate was used in the original concrete mix (Figure F.3).

As in Building 30023, each interior wood post probably bears on a small concrete pad, approximately 7 inches square in plan and installed level with the top of the wall sill. Owing to the presence of a concrete floor, this could not be studied.

3. Walls: Exterior walls are structural wood frame sheathed in a vertical board-and-batten system that extends from the eaves and gable rakes to approximately 5 inches below the top of the exposed concrete stem wall. Boards and battens vary slightly in width. The boards average approximately $\frac{3}{4}$ inch by 9 $\frac{1}{2}$ inches, and the battens are approximately $\frac{3}{4}$ inch by 3 inches wide. The board-and-batten system produces a regular rhythm, with battens casting shadows at different times of the day and year.

Where paint is chipped off on this building and the walls of the other cavalry stables, it is evident that there have been at least four coatings of paint on each building. The earliest layer appears to have been a strong Kelly green. The second layer was a cream yellow, and the third a powder blue. The final layer, visible today, is a medium-tan brown.

The condition of the exterior walls at this time ranges from fair to poor, with the poor condition largely on the south and west walls. There is paint peeling, some broken and dislodged boards and battens, and dislodging of nails. Deterioration is especially evident on the bottom half of the south wall (Figure F.4).

4. Structural system, framing: Although posts are visible, suspended ceilings obscure much of the original structural system except in a three-bay zone at the west end of the building.

Although cladding obscures the wall structure, it is a wood frame bearing wall system on continuous concrete foundations with two internal, longitudinally placed rows of regularly spaced posts along a central aisle. The posts are braced and tied to the walls, the sloping roof rafters, and across the aisle by lateral, longitudinal, and diagonal members. It is interesting to note the elegant manner in which the rustic framing elements fit together to form an integrated structure that has survived since 1916. Posts, roof framing members, and nailing boards appear to be of redwood, whereas wall studs and exterior board siding are probably of fir (Figure F.5).

Like Building 30023, the bearing walls are undoubtedly 2" x 6" studs. The walls are attached to a 6" x 8" wood sill bolted to the concrete stem wall. There are undoubtedly double plates atop the studs and horizontal blocking at certain intervals above the sill.

The posts are 6" x 6" redwood timbers that extend from below the floor to the bottom edge of a rafter. Except for the longitudinal 3" x 10" support header and the 3" x 6" tie beam at the

top of the posts, framing members are 2" x 6"s. The most striking pattern occurs longitudinally along the aisle where posts are tied at the top and at 9 ft, 7 inches above the floor and there are flanking, diagonal, braces. This bracing gives a truss-like appearance. Each post is also connected to the top of the nearest wall by a tie beam attached to a rafter and the wall plate. Such tying occurs on the east side of every sixth rafter.

Roof rafters are 2" x 6"s that extend beyond the walls to form eaves with overhangs. They tie into a thin ridge member. Above the rafters are 2" x 4" nailing boards to which corrugated metal roofing is attached. The 2" x 4"s extend beyond the gable walls to form rake overhangs.

Visible structural members appear to be intact and in fair condition. Except for one replacement post in the west end, posts are original. They are painted green, yellow, or red on the bottom and white above. Many posts have dings and gouges, especially near the base.

5. Entrance aprons, ramps, stairs: Photographs on Q.M.C. forms No. 173a and 117 do not show any kind of grade-level apron at the principal, east entry up to 1941 (Figures F.2, F-S.1). The current, slightly sloped, angled concrete apron between the east doors and the road pavement accommodates both the sliding and personnel doors. It was probably installed during the 1973 work. This 9-ft-wide feature measures 16 ft, 3 inches near the building and 21 ft, 9 inches near the pavement.

Due to the site slope, ramps or stairs have been needed to provide access from grade to the other entrance doors to Building 30028. On Q.M.C. Form No. 117, a sloped ramp appears on what was probably the original north door (Figure F-S.1). This feature no longer exists.

Today there are two concrete stair features, one for the north personnel door and one for the west personnel door. The north stair feature has a 4-ft, 0-inch by 4-ft, 9-inch concrete landing that is 2 ft, 4 ½ inches above the asphalt paving. There is a set of concrete stairs with four 7-inch risers and edge-grooved treads 11 ½ inches to 12 inches wide. There is a 2-inch-diameter pipe railing. The west feature has a 4-ft, 2-inch-square landing that is 3 ft, 7 ½ inches above the asphalt. There are six risers at 7 inches each, and edge-grooved treads 10 inches to 10 ½ inches wide. Pipe railing is installed here as well (Figure F.6).

6. Chimneys: There are 10 metal, through-the-roof chimney flues and drain vents of various sizes located near the east and west ends of the building.

7. Openings:

a. Doorways and doors: Currently, Building 30028 has six functioning exterior doors and two covered-over, former door openings. The east entry has a pair of sliding doors and a separate personnel door, for the north room. The original stable entry opening, 9 ft, 6 inches wide and 9 ft, 10 inches high, remains for the sliding doors. The doors are a non-original assembly of the same vintage as the doors on Building 30023, built sometime after 1941. Suspended on metal brackets that slide in a steel track mounted to a board above, they are an assembly of plywood in grooved board stiles and rails. The corners are secured by diagonal sheet metal plates. The metal elements, which appear on both faces of the door, are through-bolted. The east personnel door is a 3-ft, 0-inch by 6-ft, 8-inch metal door, undoubtedly installed in 1973 (Figure F.7). There was once a third door on the east façade.

Inside, in the south room, is a three-panel, exterior wood door of unknown vintage that has been completely obscured by board and batten on the exterior.

The west doorway has a single sliding door that opens to the north. It is of the same type and vintage as the east door. The opening, probably original, is 7 ft, 10 ½ inches wide by 9 ft, 4 ½ inches high. South of this sliding door is a personnel door of unknown vintage. It is a wood, flush panel door that is delaminating badly. Its frame and casing are very crude and badly weathered.

The south façade has two non-original doors. At the east end, in the location of the former easternmost double-hung window, is a badly delaminated, flush panel, wood, personnel door. It is a 3-ft, 0-inch by 6-ft, 8-inch door in a 2-inch white metal frame. To fill the gap in the former window opening above, some unpainted board has been added. There is also a single sliding door. The leaf is 8 ft, 6 ½ inches wide by 8 ft, 4 inches tall. It is another typical, plywood-panel, board stile-and-rail assembly, but there are no metal straps.

On the north façade, a 10-ft, 2-inch-wide area of corrugated metal covers what is probably the original opening. The corrugated metal begins just east of the eighth window from the west. At the east end of the north façade, in the former location of the second double-hung window from the east, is a personnel door. It is a 3-ft, 0-inch by 6-ft, 8-inch flush panel door with a framed plywood panel above to fill in the window opening. This door has ¾" x 3 ½" casing and contemporary metal hardware. It is served by the concrete stair feature.

b. Windows: Windows are a very interesting feature on this building, and they reflect former interior use. They are located on the south and north walls only. Except where replaced by doors, most original windows remain. The former east storage rooms, used by humans only, have double-hung windows of a type customary for the era. Each former stall is served by a multi-pane, square window with glazing. The window sash itself was manufactured and is identical to that used originally on all cavalry stables.

Identical, six-over-six, double-hung windows that originally served the storage rooms are found on the east end, except where replaced by doors. There are two original double-hung windows on the south façade and two on the north façade installed in 2-ft, 8-inch by 5-ft, 2-inch rough openings. Identical, six-pane windows to serve former stalls are installed in 2-ft, 10-inch-square openings. Most are up-swinging hoppers hinged inside on top with a latch below. A few stall windows are side-hinged casements, and a few are fixed. All windows have ¾" x 3 ¾" casing and a 1 ¼" x 8" sill. Inside, when 1950s wall cladding was added, casing appears to have been removed and reinstalled over the early gypsum wallboard (Figure F.8).

Currently most windows have exterior, wood-frame, square-wire mesh grills bolted to the casings. This is the same type of grill seen on the other buildings. The grill over the double-hung window on the south façade is different. It is a metal unit with straps bolted onto the window casing.

The windows, exterior casing, and wood grill frames are very weathered but repairable. There is some broken glass. On the south façade, there is one window missing, but not its grill, and one grill missing, but not its window. An evaporative cooler has been fitted into the opening of the second window from the west.

8. Roof:

a. Shape, covering: The roof is a low-pitch gable. Its slope is approximately 27.4 degrees. Since the principal building entry is on the gabled wall of the east façade, this is a front-gabled roof form. Q.M.C. Form No. 173a indicates that the original roofing was “corrugated iron,” and the current corrugated metal may be original or over 50 years old (Figure F.2). It has been painted light gray. The paint has flaked off in places. At the rakes the metal is bent to form a drip edge.

b. Eaves: Eaves comprise exposed 2” x 6” rafter ends that extend to form a 2-ft overhang. The gable rakes, supported by the nailing boards, extend approximately 1 ft. There is a cornice board at the rakes and eaves. Eaves are generally in fair condition, because framing members have been painted. There is guttering on the east and west ends of the north façade. There is some weathering of rafter ends and paint peeling on the underside of the roofing (HABS No. AZ-210-F-4).

C. Description of Interior

1. Floor plan: Today this single-story, elongated building is zoned so that rooms occupy the east end on either side of a 10-ft-wide aisle that, defined by posts, extends through an extensive area once devoted to stabling. The open-post, former stable area, which includes all but the west three bays of this building, has gypsum wallboard cladding and a suspended, acoustical tile ceiling that obscures roof framing above. Near the west end of the building is a wallboard-clad, frame partition (with an opening) that divides the building into two areas. West of the partition is a three-bay zone, mostly open-framed, that contains two rooms on its north wall (Figure F.9).

The south room at the east end is 38 ft long and occupies four bays. It is now a non-stable-related storage room. The north enclosure at the east end, 47 ft, 11 inches long, is used for herbicide storage. Inaccessible from inside, its internal configuration cannot be studied. This room, which is accessed from east and north personnel doors outside, apparently contains one latrine and two storage rooms (Chattey 1998:13). There is aisle door access into the south room. In the three-bay, west zone is a latrine, occupying the former end bay on the north wall, and an adjacent, two-bay office room. These rooms are accessed from the central aisle.

As mentioned, there are six usable door openings and two sealed ones. Besides the double-hung windows, former stall windows are centered in bays to form a regular array on the exterior. The original concrete floor remains in the south storage room at the east end. There is reinforced concrete flooring throughout the former stable area of the building. According to early plans, the concrete was installed in 1951 (Post Engineer Office 1951).

2. Stairways: None.

3. Flooring: The original, good-quality concrete slab floor of the southeast store room remains. In addition, the stable area floor, originally dirt, is covered in concrete. Construction joints from wall to wall are located at every fifth post.

4. Wall and ceiling finish: The interior, perimeter-wall face of the former stable area, originally open framing, apparently was later clad in an early vintage, unpainted, horizontal, 8-inch wood board sheathing up to 4 ft, 6 inches above the slab. Above this band was an early type of 3/8-inch gypsum wallboard encased in brown paper. This system, which may have been installed around 1951, remains visible on the south and west walls in the three-bay, west zone (Figure F.10).

In 1991, gypsum wallboard was installed over the sheathing and on outer walls of the rooms in the main part of the building (U.S. Army Form 2877). Probably at the same time, a suspended ceiling was added. The suspended ceiling consists of 2-ft by 4-ft acoustic panels in a metal grid (HABS No. AZ-210-F-2).

The walls inside the south storage room, formerly partitioned into harness, tool, and forage and grain rooms, also have the early horizontal board and wallboard system, not the original finish. In the area west of the dividing partition, the aisle face of the latrine wall consists of crudely installed, vertical boards. Inside, the latrine has gypsum wallboard walls and ceiling, painted white. The aisle face of the adjacent office wall is plywood. Inside, it has plywood panels on its south, west, and east walls and ceiling. Its north wall is the early horizontal board system with plywood above.

5. Openings:

a. Doorways and doors: Like the other buildings, Building 30028 was probably built with four interior doors, two for each east storage room. In this area, currently only one door remains, and it serves the south storage room. It is a non-original, flush panel, wood door with metal facing, painted yellow, on the aisle side and plywood facing on the interior (Figure F.11). There is also a flush panel door to the latrine in the west end of the building.

b. Windows: Noted elsewhere. Most windows on the north façade are painted white inside.

6. Decorative features: None.

7. Hardware: No original hardware was noted.

8. Mechanical equipment:

a. Heating, air-conditioning, ventilation: When first constructed, the building had no mechanical equipment. Ventilation, a necessity for a stable, was provided through operable windows. Suspended gas heaters were installed in 1974 for \$889.00 (U.S. Army Form 2877). The heaters are located in the central corridor at the east and west building ends and in the northwest office. There is an evaporative cooler on the south façade, ducted through the second window from the west. In the latrine, there is a "Colony House" extractor fan.

b. Lighting: The real property record notes a 30-amp connection with #8 wire (U.S. Army Form 2877). Original wiring and lighting fixtures no longer remain. The circuit box is located inside on the west perimeter wall. The southeast storage room has one early, ceiling-mounted ceramic fixture, missing its bulb. Elsewhere, lighting is fluorescent, probably installed in 1973. Double-fluorescent fixtures are mounted in the acoustic ceiling area, along the central aisle. Single-fluorescent fixtures are in the latrine and adjacent office.

c. Plumbing: The historic property record cards prepared in 1916 and 1941 indicate $\frac{3}{4}$ -inch water and 4-inch sewer connections (Figures F.2, F-S.1). The real property form notes a $\frac{1}{4}$ -inch gas connection. In 1973, a commode, urinal, lavatory, and 30-gallon water heater (plus two baseboard heaters) were installed for \$1,721.87 (U.S. Army Form 2877). This may have been for the currently inaccessible northeast rooms. The accessible latrine has on its west wall, a toilet, a urinal, a lavatory, and a 30-gallon "Ameriglas" water heater in a crude cabinet. At present, there are two hot water heaters, two toilets, one shower, and one urinal in the two latrines (Chattey 1998:17).

9. Original furnishings: None.

D. Site

1. General setting and orientation: Near the northwest corner of the intersection of Hungerford Avenue and Clarkson Road, Building 30028 is the second building from the north of Building 30031, the north end building. It is part of Fort Huachuca's historic cavalry stable complex in the former, expanded Quartermaster area east of Huachuca Creek. The building is an integral component of a property of parallel, regularly arranged, matching units aligned along Clarkson Road and spaced approximately 70 ft apart, with former paddocks in between. These elongated, gable-roofed buildings are southeast-northwest trending. Given the spatial quality inherent in the regulated positioning of these buildings, the complex itself can be considered a single historic property.

The site incorporates the stable complex and a surrounding area that includes the right-of-way of former railroad tracks to the east, Hungerford Avenue to the south, Huachuca Creek to the west, and part of the parking lot of Building 30031 to the north. The terrain slopes considerably to the northwest. Today's Clarkson Road, once an unnamed dirt access way, is asphalt paved. The historic railroad right-of-way, just east of Clarkson Road, is a level strip along a steep embankment. There is a stone-lined drainage ditch along the east edge of the railroad bed and several Depression-era mortared, stone masonry features, including stairs and a retaining wall, within view of the buildings. Large, historic cottonwood trees grow along the railroad bed and downslope to the west along Huachuca Creek, a dry watercourse for much of the year. (See Parkhurst and Thiel 2005.)

The microsite for Building 30028 consists of its former paddock area (between this building and Building 30031), the adjacent paddock to the south (between this building and Building 30027), and a zone to the rear and in front. There is a chain-link fence lining the Clarkson Road end of each former paddock.

The former north paddock is asphalt paved. A large concrete slab for a former open shed, installed in 1973 and later removed, remains adjacent to the north wall of Building 30028 (Figure F.12; U.S. Army Form 2877). In the south paddock, adjacent to Building 30028, is a small, un-mortared, rubble stone wall feature just inside the east chain-link fence. This feature has 2-inch-diameter, horizontal iron pipe laid in it and low, 4-inch-diameter upright pipes along its west edge (Figure F.13). The purpose of this feature is unknown. Also, near and along the entire south façade, is a narrow concrete feature that probably functioned as a tire stop at one time.

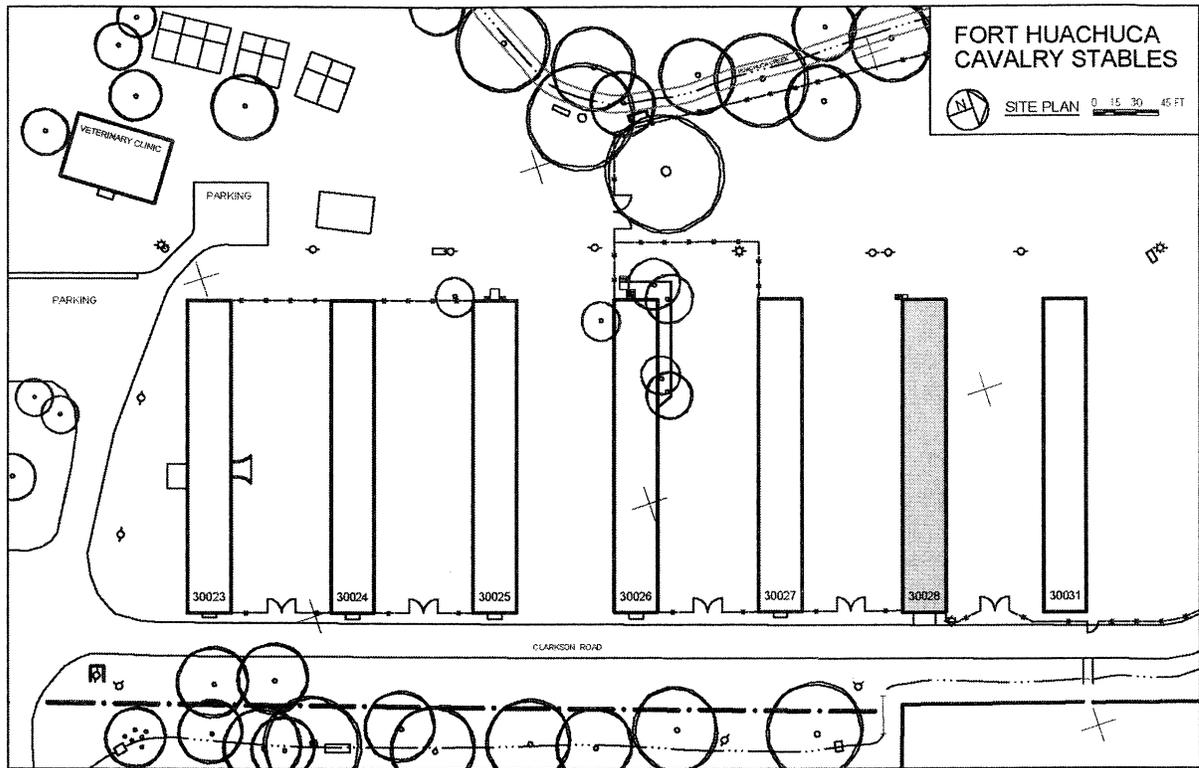


FIGURE F.1. SITE PLAN SHOWING BUILDING 30028 LOCATION.

Building No. 126 U.S.A.M.C. File No. 297

Plant: FORT HUACHUCA, ARIZ.

Designation of Building: Cavalry Stable Capacity 28 Horses

Total Cost: \$4103.28 Date of Report: Jan 5 1916

Material: Walls - Frame Foundation - Concrete

Floor - Concrete

Roof - Asphalt and Concrete

Special Features: Above ground water, square foot - 66.37

Dimensions of main building: 219'-0" x 36'-0" Wings

PROPERTY FURNISHED INSTALLED	QUANTITY	UNIT PRICE	TOTAL
Beltways, iron	1	110.00	110.00
Blackboard	1	25.00	25.00
Chairs, folding, iron	12	3.50	42.00
Tables, iron	12	3.50	42.00
Chests of drawers	12	3.50	42.00
Doors, poles	12	3.50	42.00
Doors	12	3.50	42.00
Hinges	12	3.50	42.00
Hardware	12	3.50	42.00
Refrigerator	1	3.50	3.50
Refrigerator	1	3.50	3.50
Tables, dining	12	3.50	42.00
Chairs	12	3.50	42.00
Wall paper	1	3.50	3.50
TOTAL			4103.28

PROPOSED WORK:

Each and every room arranged as follows:

39 Double stalls 9'6" x 9'6"

Exercise and Open Room 12' x 9'6"

Saddle Room 28'6" x 9'6"

ADDITIONS AND INSTALLATIONS:

Below and/or change in all construction additions, substitutions of water, sewer, lights, etc. also note for all changes of listed fixtures, etc.

FIGURE F.2. U.S. ARMY QUARTERMASTER CORPS FORM, NO. 173A (1916); INITIAL PROPERTY RECORD CARD, BUILDING 30028 (ON FILE AT THE FORT HUACHUCA HISTORICAL MUSEUM).

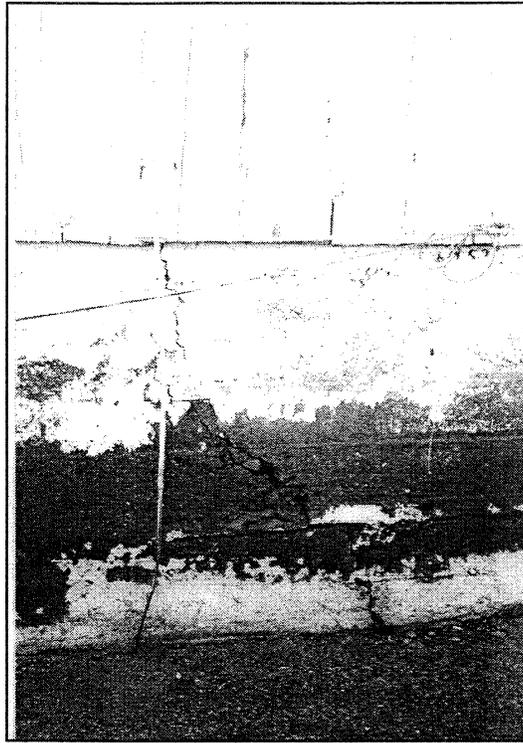


FIGURE F.3. CONCRETE STEM WALL, NORTH WALL AT WEST END, SHOWING CRACK WITH VOIDS (PHOTOGRAPH BY JANET PARKHURST, JANUARY 2005).

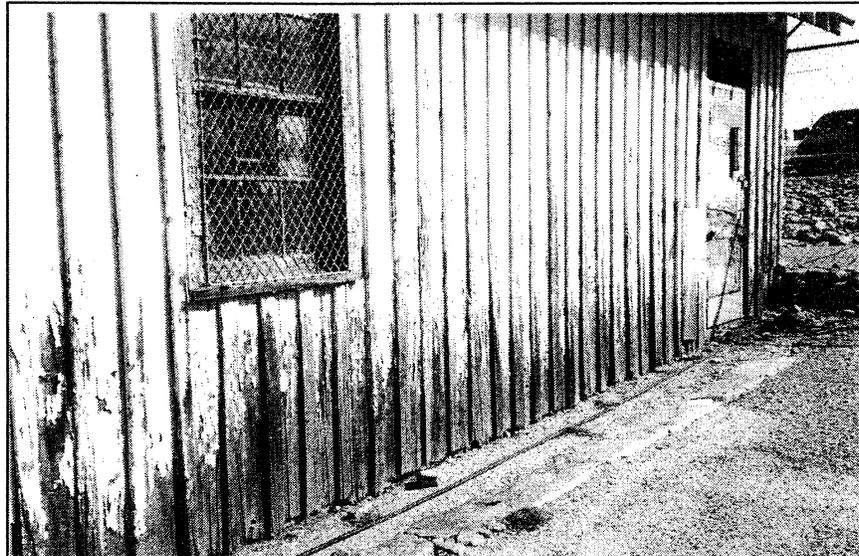


FIGURE F.4. DETERIORATED SOUTH WALL, SHOWING SERIOUS WEATHERING AT BASE (PHOTOGRAPH BY JANET PARKHURST, JANUARY 2005).

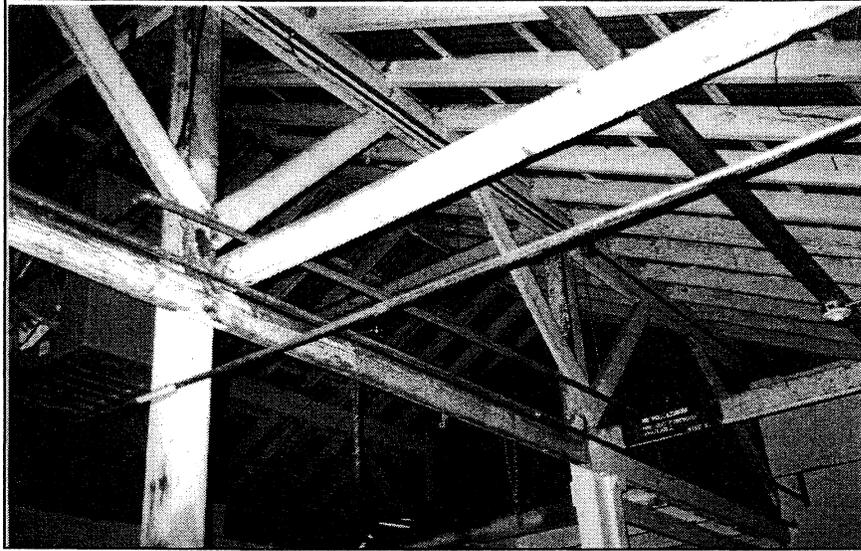


FIGURE F.5. ROOF STRUCTURE TYPICAL OF THE SEVEN STABLES, VISIBLE ONLY IN OPEN AREA AT WEST END OF BUILDING (PHOTOGRAPH BY JANET PARKHURST, JANUARY 2005).



FIGURE F.6. CONCRETE STAIRS TO NORTH PERSONNEL DOOR, CONSTRUCTION DATE UNKNOWN (PHOTOGRAPH BY JANET PARKHURST, JANUARY 2005).

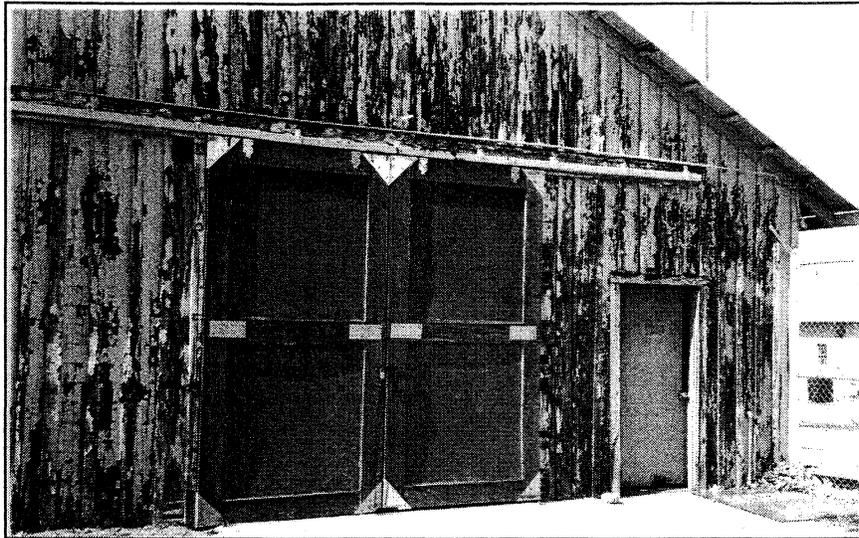


FIGURE F.7. NON-ORIGINAL EAST SLIDING DOOR WITH PERSONNEL DOOR TO NORTH STORE ROOMS (PHOTOGRAPH BY JANET PARKHURST, JANUARY 2005).



FIGURE F.8. ORIGINAL STALL WINDOW WITH FRAMED, WIRE-MESH WINDOW GRILL, SOUTH WALL. DATE OF GRILL UNKNOWN (PHOTOGRAPH BY JANET PARKHURST, JANUARY 2005).



FIGURE F.9. OPEN-POST, FORMER STABLE AREA, SHOWING GYPSUM WALLBOARD WALL CLADDING AND SUSPENDED ACOUSTICAL CEILING INSTALLED IN 1973 (PHOTOGRAPH BY JANET PARKHURST, JANUARY 2005).

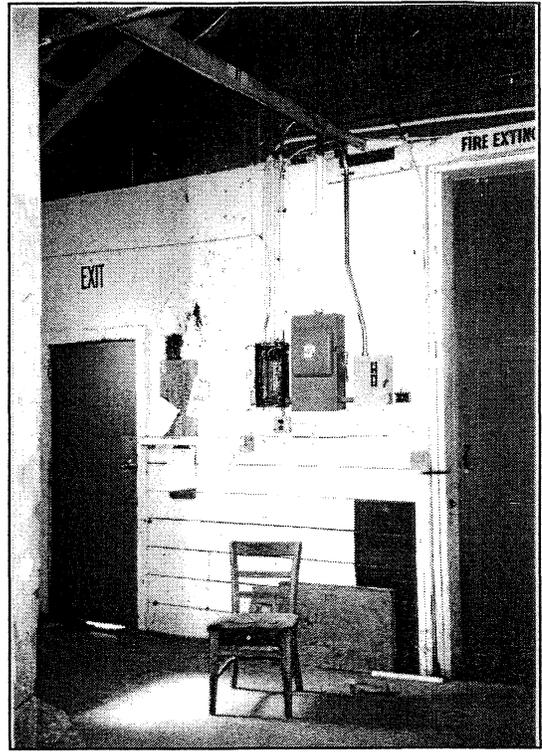


FIGURE F.10. EARLY WALL CLADDING SYSTEM, PROBABLY INSTALLED AROUND 1951, ON WEST PERIMETER WALL (PHOTOGRAPH BY JANET PARKHURST, JANUARY 2005).

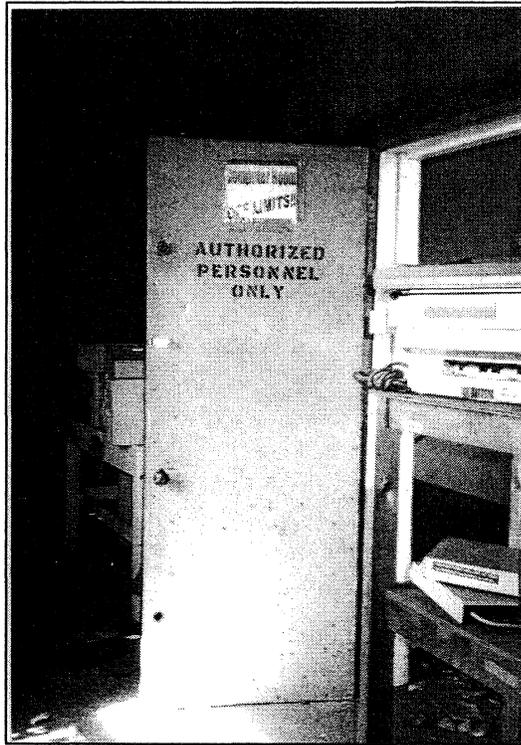


FIGURE F.11. NON-ORIGINAL, FLUSH PANEL, METAL-FACED WOOD DOOR, SOUTH STORAGE ROOM. DATE OF INSTALLATION UNKNOWN (PHOTOGRAPH BY JANET PARKHURST, JANUARY 2005).

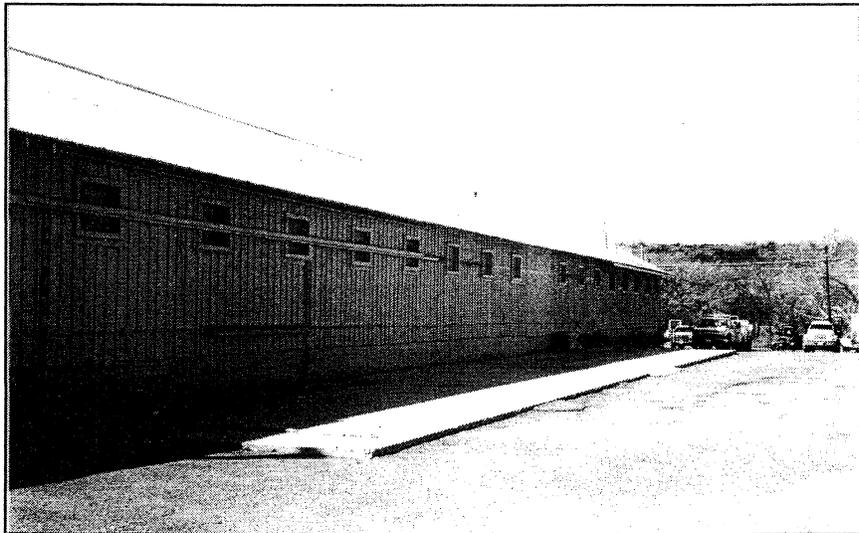


FIGURE F.12. LARGE SLAB IN NORTH FORMER PADDOCK AREA, INSTALLED IN 1973 FOR AN OPEN SHED SINCE REMOVED (PHOTOGRAPH BY JANET PARKHURST, JANUARY 2005).

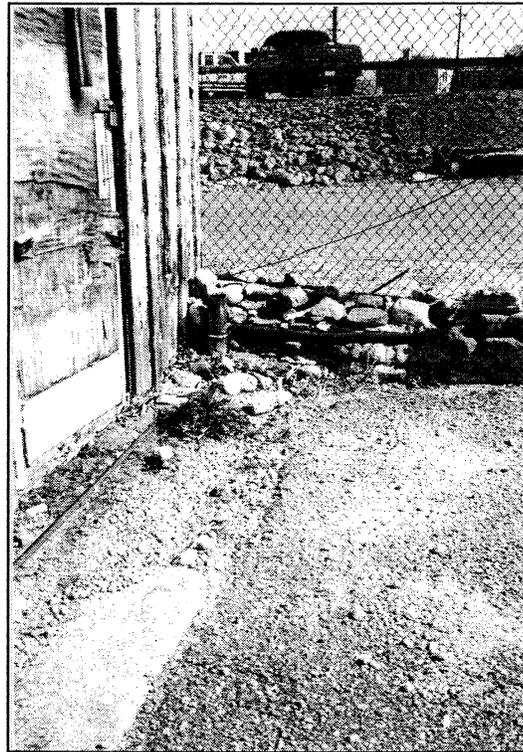


FIGURE F.13. STONE AND PIPE FEATURE, NEAR SOUTH WALL AT EAST END, OF UNKNOWN VINTAGE AND USE (PHOTOGRAPH BY JANET PARKHURST, JANUARY 2005).

PART III. SOURCES OF INFORMATION

A. Architectural Drawings: This building was constructed from the Office of the Constructing Quartermaster Corps (O.C.Q.C.) standardized plan no. 291, as noted on the initial property record card (U.S.A.Q.M.C. 1916). The plans were not found at Fort Huachuca or other depositories of records. During the period when Fort Huachuca was deactivated and reactivated several times, from 1947 to 1954, drawings and records were removed from the post and apparently lost (Parkhurst and Thiel 2005).

The U.S. Army generated one early twentieth-century, standardized plan that is very similar to the Fort Huachuca cavalry stable plan (Construction Division of the Army 1919:plate 58). It has the same elongated layout, front-gabled form, framing system and fenestration found in plan no. 291. This closed stable features a double-loaded, central-aisle, straight-stall plan with saddle and forage rooms at one end of the building. Mangers are mounted on the frame walls (Figure F-S.4).

B. Early Views: Early views of Building 30028 are found on the initial property record card, Q.M.C. Form No. 173a, and the 1941 card, Q.M.C. Form No. 117 (Figures F.2, F-S.1).

C. Interviews, Consultations:

Robert Arzola, Architect. Historic American Buildings Survey, National Park Service, Department of the Interior, Washington D.C. Mr. Arzola provided initial verbal guidance for architectural drawings. March 2004.

Tom Campbell, Mechanical Engineer. Engineering Services Branch, Engineering Plans and Services Division, Fort Huachuca, Arizona. Mr. Campbell researched and provided historic maps and building modification plans. January 2005.

Mike Berg, Branch Chief. Engineering Services Branch, Engineering Plans and Services Division, Fort Huachuca, Arizona. Mr. Berg provided a disk of scanned historic plans, including a modification for Building 30023. November 2004.

Jack Boucher, Photographer. Historic American Buildings Survey, National Park Service, Department of the Interior, Washington, D.C. Mr. Boucher provided initial verbal guidance for the large-scale photography. March 2004.

Paul W. Chattey, Historical Architect. Resources, Management and Science Department. Yosemite National Park. Mr. Chattey provided information about his work at Fort Huachuca, including his 1998 HABS documentation of four of the cavalry stables while working for the U.S. Army Corps of Engineers, Seattle District. March 2004, February 2005.

Thomas G. Cochran, Chief. Environmental and Natural Resources Division, Directorate of Public Works, Fort Huachuca, Arizona. Mr. Cochran provided administrative support for this HABS project. December 2003 to February 2005.

Paul Dolinsky, Chief. Historic American Buildings Survey, National Park Service, Department of the Interior, Washington, D.C. Mr. Dolinsky provided initial verbal guidance for documentation of a stable complex. March 2004.

Raymond L. Easton, Real Property Clerk. Real Property Division, Directorate of Public Works, Fort Huachuca, Arizona. Mr. Easton researched, interpreted, and provided property record cards for the seven stable buildings. In addition, he provided a very useful map and a 1951 building inventory. November 2004 through February 2005.

Bob Frankeberger, Architect. Arizona State Historic Preservation Office, Phoenix, Arizona. Mr. Frankeberger provided scope guidance, review, and coordination with Fort Huachuca and the National Park Service, Denver, Colorado. March and June 2004.

Steve Gregory, Museum Assistant. Fort Huachuca Historical Museum, Fort Huachuca, Arizona. Mr. Gregory provided research guidance and archival material including maps, photographs, and text about the evolution of the site and the stabling of mules and horses at Fort Huachuca. January, February 2005.

Tomas G. Keohan, Historical Architect. Heritage Partnership Program, National Park Service, Intermountain Regional Office, Denver, Colorado. Mr. Keohan provided guidance and review of CAD drawings of the site and Building 30023. October 2004 until April 2005.

Vince Moreau, Facility and Space Utilization Specialist, Real Property Division, Directorate of Public Works, Fort Huachuca, Arizona. Mr. Moreau secured access to the buildings for documentation purposes. December 2003 through January 2005.

Mary Padilla, HABS/HAER Coordinator. National Park Service, Santa Fe, New Mexico. Ms. Padilla assisted with initial procedure and provided original material from a 1996 submission for Building 30023. March 2004.

William T. Phillips, Museum Director, Fort Huachuca Historical Museum, Fort Huachuca, Arizona. Mr. Phillips provided archival property record cards, maps, early photographs, disks with scanned images, historic information, and research guidance plus arranged the venue for the photographer. November 2004 to January 2005.

Charles Slaymaker, Ph.D., Historic Properties Manager. Environmental and Natural Resources Division, Directorate of Public Works, Fort Huachuca, Arizona. Dr. Slaymaker was the historic property manager for this HABS project. He provided administrative support and documentary material on the buildings. He provided on-going research guidance and participated in valuable interviews. December 2003 to February 2005.

Joshua Swanson, ITAM GIS Analyst. Range Management, Fort Huachuca, Arizona. Mr. Swanson provided base contour and aerial plans, appropriately scaled and adjusted, to be used for the project site plan. In addition, he provided individual building UTM's. January 2005.

Lysa Wegman-French, Historian. Heritage Partnership Program, National Park Service, Intermountain Regional Office, Denver, Colorado. Ms. Wegman-French outlined the project scope. In addition, she provided on-going guidance of HABS procedures and review of submittals. March 2004 to April 2005.

D. Bibliography

Books and Reports:

Chattey, Paul W. "Fort Huachuca, Building 30028 (Cavalry Stable), HABS No. AZ-XX-XX." Draft HABS outline form. Seattle: U.S. Army Corps of Engineers, Seattle District. Technical Center of Expertise for Preservation of Historic Buildings and Structures, 1998.

Construction Division of the Army. *Manual of the Construction Division of the Army*. Washington, D.C.: Consolidated Supply Co., 1919.

Parkhurst, Janet H., and J. Homer Thiel. "Historical Narrative," in *A Historic American Buildings Survey of the Fort Huachuca Cavalry Stables (HABS No. AZ-210-A through G), Cochise County, Arizona*, by Janet H. Parkhurst, J. Homer Thiel, Ralph Comey, and Susan D. Hall. Project Report No. 05-116. Tucson: Desert Archaeology, Inc., 2005.

U.S. Army Forms:

U.S. Army. Real Property Record, DA Form 2877. Authorized for use on 1 November 1964. On file at the Fort Huachuca Real Property Division Office. Entries for Building 30028 go from 1951 to 2004.

U.S. Army Corps of Engineers (U.S.A.C.E.), Los Angeles District. DD Form 290 – Transfer of New Construction/Real Property – RE-C-292-51. An inventory of properties for re-activation of the fort. On file at the Fort Huachuca Real Property Division Office and at the Fort Huachuca Historical Museum, 25 April 1951.

U.S. Army Quartermaster Corps (U.S.A.Q.M.C.), Q.M.C. Form No. 173a, 1916. Property record card, authorized for use on 15 November 1913. Card is for Building No. 126. On file at the Fort Huachuca Historical Museum Annex, 1916.

U.S. Army War Department, Q.M.C. Form No. 117 (Old No. 173A), 1941. Property record card, revised 28 June 1939. Card is for Building No. 126. On file at the National Archives II, College Park, Maryland, Record Group 77, Ch. of Engineers, Entry 393, Historical Record of Buildings, Box 95, Folder 4.

Drawings:

Post Engineer Office, Fort Huachuca, Arizona. General Site Plan Building Use Map. On file at the Fort Huachuca Historical Museum, 9 June 1955.

Post Engineer Office, Fort Huachuca, Arizona. "T-3039 Office." Architectural plans, 21 October 1951.

U.S. Army Corps of Engineers, Los Angeles District. D.O. Series 1124-6. Demobilization Study Layout Plan. On file at the Fort Huachuca Real Property Division Office, 1 November 1945, revised 1946.

E. Likely Sources Not Yet Investigated: The occupancy history of Building 30028 has not been completely documented. It would be useful to know whose horses were stabled in the building after the 10th Cavalry departed, as well as who used the building when it was a storehouse rather than a stable. An Army personnel record search for individuals who might have worked in the stables could prove useful.

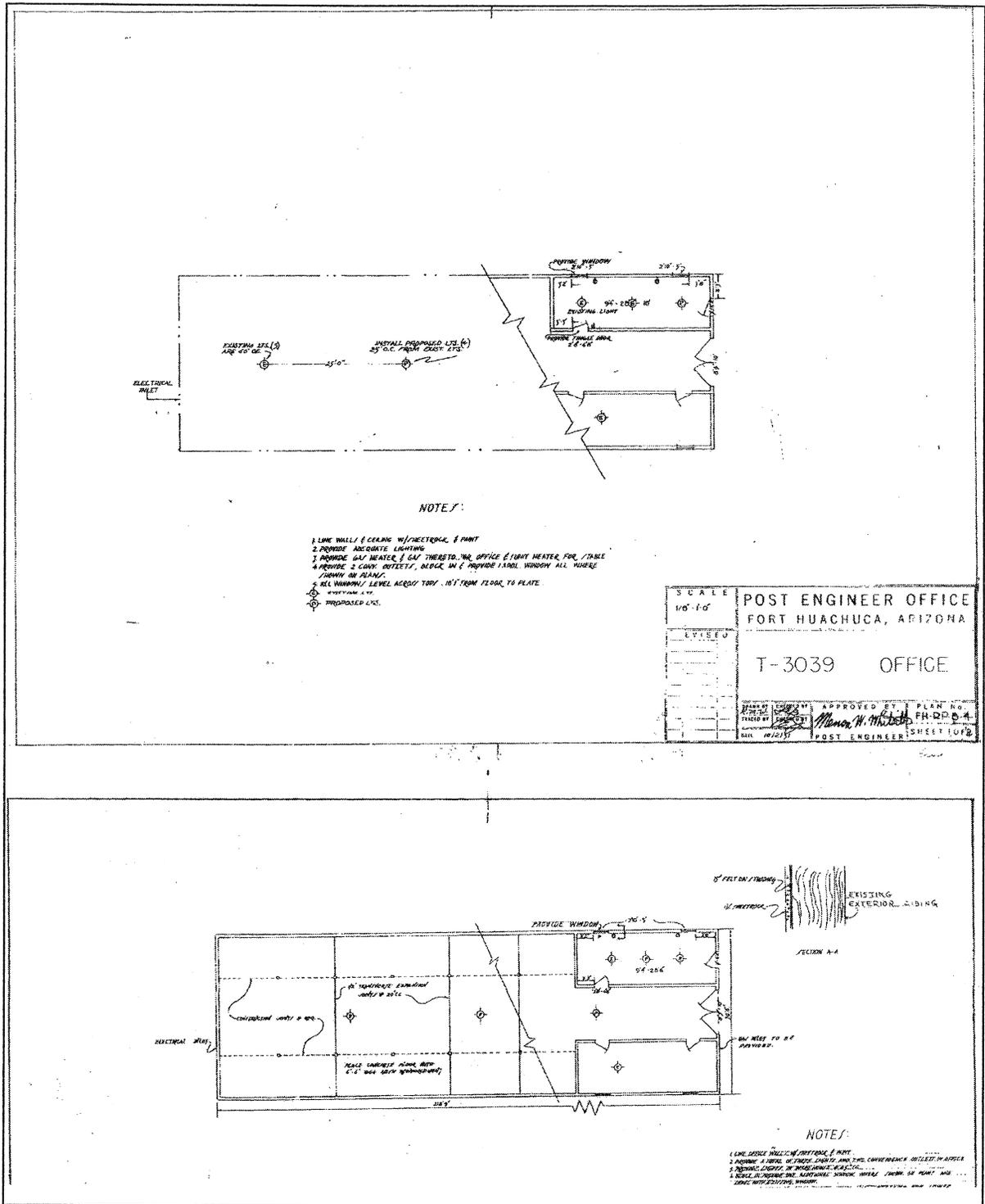


FIGURE F-S.3. "T-3039 OFFICE", NOW BUILDING 30028 (POST ENGINEER OFFICE, FORT HUACHUCA, 1951).

PART IV. PROJECT INFORMATION

A number of individuals contributed to this project, working from December 2003 to March 2005. Architectural building documentation and historical research were completed by Tucson historic architects Janet H. Parkhurst, M.A., and Ralph Comey, M.A., AIA, of Ralph Comey Architects and Janet H. Strittmatter, Inc., Associated Architects. Historical research was also conducted by historical archaeologist J. Homer Thiel, M.A., of Desert Archaeology, Inc., at the National Archives and the Library of Congress in Washington, D.C.; the Arizona Historical Society and the University of Arizona Special Collections in Tucson, Arizona; and at the Fort Huachuca Historical Museum, Fort Huachuca, Arizona.

Peter L. Trexler, photographer, and Moira MacMahon, photography assistant, photographed the buildings and archival photographs at Fort Huachuca and prepared large-format photographs for inclusion in the report. Susan D. Hall, an archaeologist and former architect employed by Desert Archaeology, Inc., drafted the architectural drawings.