

FORT HUACHUCA, CAVALRY STABLE
(Building No. 30027)
(Building No. 89)
(Building No. 125)
(Building No. 3038)
Clarkson Road
Sierra Vista vicinity
Cochise County
Arizona

HABS AZ-210-E
AZ-210-E

HABS
AZ-210-E

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN BUILDINGS SURVEY
National Park Service
U.S. Department of the Interior
1849 C Street NW
Washington, DC 20240-0001

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FORT HUACHUCA, CAVALRY STABLE
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Location: Building 30027 is located along the west side of Clarkson Road, north of the intersection with Hungerford Avenue. It is the third building to the south of Building 30031, the north end building, and one 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 E.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	3491180.24	559997.36
SW	3491170.26	559994.04
NE	3491159.28	560060.97
SE	3491149.23	560057.70

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 30027 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 E.2; HABS No. AZ-210-E-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. No. Form 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 paddock of the building may have been used for storage by 1941, because items appear stored there in the photograph attached to Q.M.C. Form No. 117 (Figure E-S.1.) However, it still had horses in 1941 and was classified as a stable in 1951 (Parkhurst and Thiel 2005; U.S.A.C.E. 1951). A change of use occurred between 1951 and 1955 when the building became a storage facility (Post Engineer 1955). Along with Building 30024, Building 30027 currently serves as a furniture storage facility for the Army Air Force Exchange Service (AAFES). It will be demolished.

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 173a shows the building probably when construction was nearing completion. Two barrels and a crate stand in front of entry doors propped open by boards. Unlike photographs of some of the other stables, no laborers are visible in this photograph (Figure E.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 30027, have been modified to a greater or lesser extent. Modifications in this building are not extensive enough to compromise the exterior integrity or obscure the essential, open-structure, spatial quality of the interior. Because it also retains the original east storage rooms, Building 30027 is the second-most intact building in the complex after Building 30023.

Exterior modifications include some door replacement and universal window grill installation. The building may retain its original east, north, and west door openings, slightly modified, but an additional south door, now covered over, was installed at some point. Interior modifications include alterations inside the original storage rooms, wall finishing in the stabling area, addition of concrete flooring, stall rail removal, and the construction of two latrines from single bays adjacent to the north store room. Most of the original structural

system remains visible. Study of this building was limited by the presence of a large number of mattresses and other furnishings stored within.

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 diagramed on Q.M.C. Form No. 117 (the 1941 property record card), there was a saddle shop to the north and, to the south, an enclosure partitioned into a harness room, tool room, and grain and storage room (Figure E-S.1). These storage rooms currently remain with their characteristic, original, aisle-wall cladding. Inside, the original cladding has been replaced, and partitions have been removed.

The interior face of the stabling area walls has been modified by the addition of early cladding over the original exposed structure. It is a system of painted wainscot-level horizontal boards with brown-paper-backed gypsum plaster board above. This work probably pertains to the era between 1951 and 1955, when the stable was converted to a storage facility.

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 30027 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-E-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. Managers were attached to walls where animals were tethered.

2. Condition of fabric: The overall structural condition of Building 30027 is generally sound, in spite of its vintage. Its present furniture storage use no doubt prompts vigilance concerning stabilization, especially from water intrusion, so that it may continue to serve a storage function. There is a large structural crack in the foundation up through the wall framing at the northwest corner. Most framing is otherwise intact, due to initial good workmanship and durable materials. Exterior cladding is weathering and currently is in fair-to-poor condition.

B. Description of Exterior

1. Overall dimensions: Building 30027 is 219 ft, 5 ½ inches long by 30 ft, 4 ¼ 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, but it is exposed along the entire west façade, much of the south façade and most of the north façade. In the northwest corner, the foundation shows 4 ft, 11 ½ 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.

There is a major structural crack on the northwest corner where the foundation is being shored by boards attached to a sill that is braced by steel rods in the pavement. The stem wall is otherwise in fair to poor condition with some cracks, abrasion, and corner deterioration. 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 E.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 foundation. 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 considerable paint peeling, some broken and dislodged boards and battens, and dislodging of nails. Typically, the lower edge of the exterior cladding is more damaged (Figure E.4).

4. Structural system, framing: Much of the integrated, repetitious structural system is easy to study because it is exposed inside. Although non-original, interior 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 E.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. The entire structural system is fastened together with framing nails.

Roof rafters are 2" x 6"s that extend beyond the walls to form eaves with overhangs. They tie into a 3" x 8" 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.

The structure remains in remarkable condition considering its vintage, but there has been removal, with or without replacement, of some structural members. Six of the original posts have been replaced, along with related tie members. A number of longitudinal and latitudinal tie beams have been removed. Some are cracked, probably damaged by equipment such as fork lifts. There has been some replacement of tie members. To support the upper 3" x 10" beams, 2-inch-blocking was bolted to the wall side of each post at an unknown date. Posts are painted yellow at the base, then a band of gray with white above. At one time, roof framing and the underside of the ceiling were painted white.

5. Entrance aprons, ramps and stairs: Photographs on Q.M.C. forms No. 173a and No. 117 do not show any kind of grade-level apron at the principal, east entry up to 1941 (Figure E.2; Figure E-S.1). The current, slightly sloped, 4-ft, 10-inch-wide, angled, concrete apron was probably installed by 1952. Some asphalt has spilled over onto the east edge. No other ramps or docks remain.

6. Chimneys: Two prefabricated metal flues for storage room heaters penetrate the roof on the east end of the building.

7. Openings:

a. Doorways and doors: Currently, Building 30027 has three exterior doors and one covered-over, former door opening. The east, north, and west openings appear to be original, but there has been door replacement. On the south façade is a non-original door opening, currently sealed shut by corrugated metal panels.

The east or principal entry has a pair of sliding doors over the original 8-ft, 8 ½-inch-wide by 9-ft, 5-inch-high opening. The doors are a non-original assembly of the same vintage as the doors on Building 30023, being more recent than 1941. A personnel door was later installed in the south door leaf. The sliding doors are 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 personnel door is a 2-ft, 8-inch by 6-ft, 8-inch swinging, flush-panel type, painted red brown (Figure E.6).

The west doorway has a pair of custom-built, swing-type doors that appear to be very early in vintage. (As mentioned, no pictures of original west doors have been found.) From the exterior, the doors very much resemble the west doors on Building 30024. The door leaves are constructed of large vertical boards with ¾-inch by 3 ¼-inch battens. The board and batten exterior face is attached to wide horizontal, vertical, and diagonal boards on the back.

The west pair has been nailed shut with a board and is in poor condition with paint peeling and missing battens (HABS No. AZ-210-E-2, HABS No. AZ-210-E-3).

The north facade also has a swinging board-and-batten door in its 9-ft, 2 ½-inch-wide opening.

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. Most original windows remain. The former storage rooms, used by humans only, have double-hung windows of a type customary for the era. Each former stall is served by a hopper-type (now fixed) 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 for the storage rooms are found on the east end. There are three double-hung windows on the south facade and two on the north facade 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 rough openings. Originally up-swinging hoppers, later they were boxed inside with 1-inch-thick boards in the head and jambs to fix them. Both window types have ¾" x 3 ¾" casing and a 1 ¼" x 8" sill. Inside, a second layer of ¾-inch-thick casing was added after the open frame walls were sheathed (Figures E.7-E.8).

Currently all windows have exterior, wood-frame, square-wire mesh grills, either nailed or bolted to the casings. The last paint color on the grill frames was light brown. The windows, exterior casing, and grill frames are very weathered but repairable. Some stall windows are missing sash and are filled with plywood.

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 facade, 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 E.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 some weathering of rafter ends and paint peeling on the underside of the roofing (Figure E.9).

C. Description of Interior

1. Floor plan: Today this single-story, former stable building is a long hall, zoned so that the original storage rooms plus two north latrine additions, one bay each in size, occupy the east end on either side of a 10-ft-wide aisle. Defined by posts, the aisle courses through an extensive area once devoted to the stabling of mules and horses. Wood posts form a repetitive pattern of bays, each formerly a stall. Except for the latrine additions, the floor plan is very much like the original.

As mentioned, there are four door openings, with the principal entry on the east end. Besides the double-hung windows, former stall windows are centered in bays to form a regular array on the exterior. Non-original concrete flooring has been added to the entire former stabling area. This addition undoubtedly occurred when the stable became a warehouse.

2. Stairways: None.

3. Flooring: The good-quality concrete slab floors of the original north and south storage rooms remain. The latrine additions also have good-quality concrete floors. In addition, the former dirt floor in the stabling zone is covered in concrete. The date of this installation is probably between 1951 and 1955. Control joints are located longitudinally on the aisle side of the wood posts and laterally at every fourth post. At some point, the slab was given a thin concrete topping. There are remnants of early yellow and white stripes painted from post to post, and white stripes painted from each post to the wall.

Apparently the slab is cracking in places, especially in the zone of the serious settlement problem on the northwest corner; however, this cannot be observed currently due the stored furniture (Chattey 1998:14). Where it can be observed, the concrete floor has cracks, dings, and large areas where the topping has chipped.

4. Wall and ceiling finish: The interior walls of the former stable area (originally unfinished, exposed structure) are clad in black building paper covered by an early vintage (probably early 1950s), unpainted, horizontal, 5 ½-inch wood board sheathing up to 3 ft, 10 ¼ inches above the slab. Above this band is an early type of 3/8-inch gypsum wallboard encased in brown paper. This material extends to the rafter level. There is a wood nail strip along its top edge. Black building paper is installed on the east and west gable walls, above the door lintels (Figure E.10).

The storage rooms retain the original board-and-batten, aisle-wall sheathing. (This differs from Building 30023, where there are no battens on storage room walls.) It comprises ¾" x 9" full-length vertical boards that are approximately 10 ft, 6 ½ inches long. Battens are ¾" x 3 ½" board strips, many of which are missing. The exterior face of the west wall of the south storage room is the typical end wall condition, with 2" x 11 ½" horizontal boards up 3 ft, 10 ½ inches and ¾" x 9"s installed vertically above. (End walls were stronger to withstand equine kicks from adjacent stalls.) The walls are painted black to 5 ft and white above. The aisle wall of the south storage room is off alignment from its original position, especially near the east door where it deviates to the south by 7 ½ inches (HABS No. AZ-210-E-4).

The aisle wall of the latrines is constructed of 2" x 4" framing that rises 8 ft, 7 inches above the finish floor level. It is clad in gypsum wallboard. The interior walls and ceiling are also gypsum wallboard, painted cream white.

Interior wall treatment inside the storage rooms varies and is not the original horizontal wood sheathing. The interior walls of the north storage room, or saddle shop on Q.M.C. Form No. 117, are entirely clad in the early, brown-paper-backed gypsum wallboard found in the stabling area. In the east bay of the south storage room, the area of the former harness room on Q.M.C. Form No. 117, the walls and ceiling are clad in corrugated metal (Figure E-S.1). The reason for this cladding is unknown but may represent a post-stable-era

hazardous use. The west partition of this early harness room has been removed. The remaining wall surfaces in the south storage room have early gypsum wallboard or plain building paper panels between the wall studs and blocking.

There are no ceilings in the open former stabling area, but they do exist in the former storage rooms and latrines. The north room or saddle shop retains its original board-and-batten ceiling. At approximately 10 ft above the floor, this ceiling consists of 1" x 9" boards with 1" x 2" battens running longitudinally east and west (Figure E.11).

5. Openings:

a. Doorways and doors: When first built, the stable had four interior doors, two for each storage room and located on the aisle. The easternmost saddle shop door has been closed and sealed with board-and-batten sheathing. The second door is missing from its 3-ft-wide opening. The south storage room is missing its door at the east end. This 3-ft, 0-inch by 6-ft, 8-inch door accessed the former harness room area (now lined with corrugated metal). The existing west door, which accesses the former grain and forage area, is a five-panel type modified with a pane of glass installed in the second panel from the top. This door appears to be early, if not original (Figure E.12).

The latrine additions have five-panel, 2-ft, 6-inch by 6-ft, 8-inch doors.

b. Windows: Windows have been framed to be inoperative and re-cased, as noted elsewhere.

6. Decorative features and trim: The only built-in feature observed in this building is one water closet stall for each latrine. The stalls are built of wood frame and plywood and painted a cream color to match the walls and ceilings.

7. Hardware: No original hardware was observed.

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. According to the real property card, at one time a space heater was installed with a 1 ¼-inch gas connection. Currently there is one "Modine" brand, ceiling-mounted, gas space heater at the east end of each storage room, vented through the roof.

b. Lighting: Original wiring and lighting fixtures no longer remain. The real property card notes one 30-amp connection with #8 wire (U.S. Army Form 2877). Current lighting is sparse. In the former stabling area, four bare-bulb fixtures illuminate the aisle, each in a porcelain socket. They are suspended by cable from a round metal housing installed on the ridge board. Wiring is fed through metal conduit. Each storage room has two bare-bulb, ceiling-mounted fixtures in ceramic holders. Conduit is installed on the ceilings. Each latrine has a metal globe fixture mounted on the ceiling and above the lavatory mirror. Globes are missing.

c. Plumbing: The 1941 building record card indicates ¾-inch water and 4-inch sewer connections (U.S. Army War Dept. 1941). After 1941, the above-mentioned 1 ¼-inch gas line was installed. There is no subsequent information to indicate plumbing upgrades (U.S. Army Form 2877). Currently, each latrine has a water closet, lavatory, and urinal, all of white vitreous china. The date of the latrine construction is not known.

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 30027 is the third building to the south 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 characteristics inherent to the carefully regulated, relative 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 of Building 30027 includes an earth strip between the east façade and Clarkson Road, the location of the concrete entrance apron. Also included is the former paddock area, presently an area of concrete pavement between this building and Building 30028. Currently this paddock is enclosed by an 8-ft-high chain-link fence with a gate off Clarkson Road. The zone between this building and Building 30026 is the asphalt-paved former paddock that once pertained to Building 30026. To the west of Building 30027 and its pavement is an unfenced zone of grass that extends to the dense riparian zone that includes Huachuca Creek.

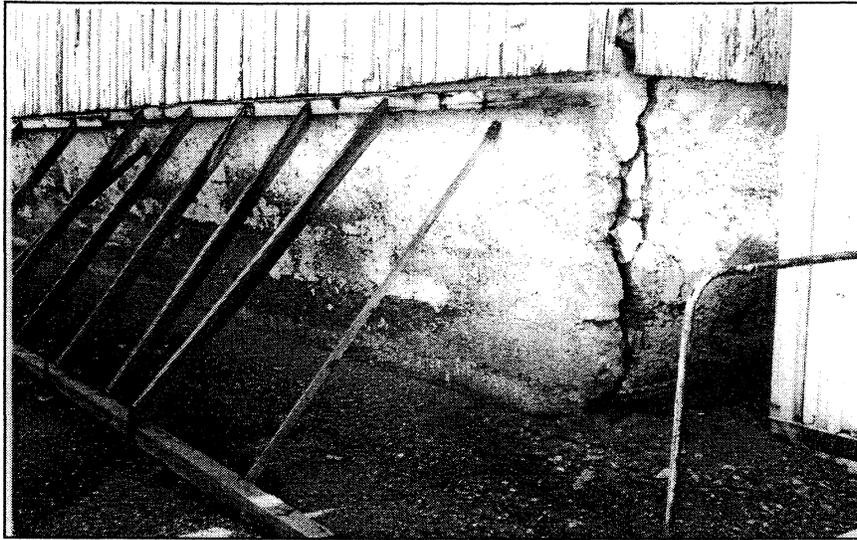


FIGURE E.3. CONCRETE STEM WALL, NORTHWEST CORNER, SHOWING SERIOUS STRUCTURAL CRACK AND SHORING (PHOTOGRAPH BY JANET PARKHURST, JANUARY 2005).

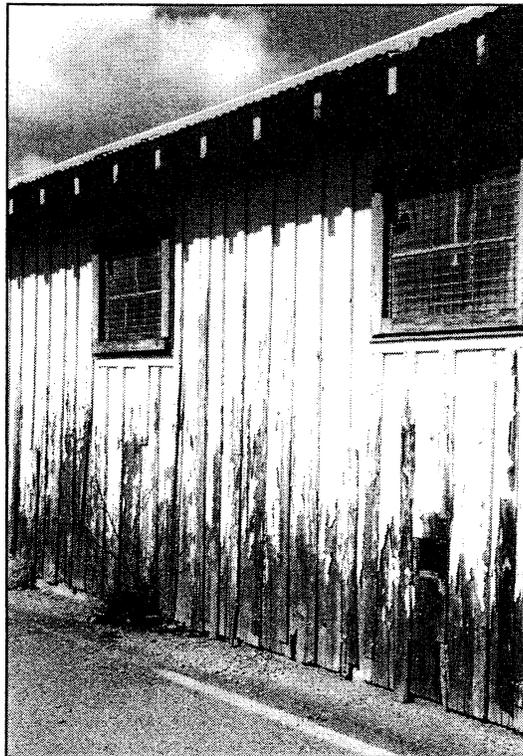


FIGURE E.4. BADLY WEATHERED BOARD-AND-BATTEN WALL, SOUTH FAÇADE, SHOWING LOWER EDGE DETERIORATION (PHOTOGRAPH BY JANET PARKHURST, JANUARY 2005).

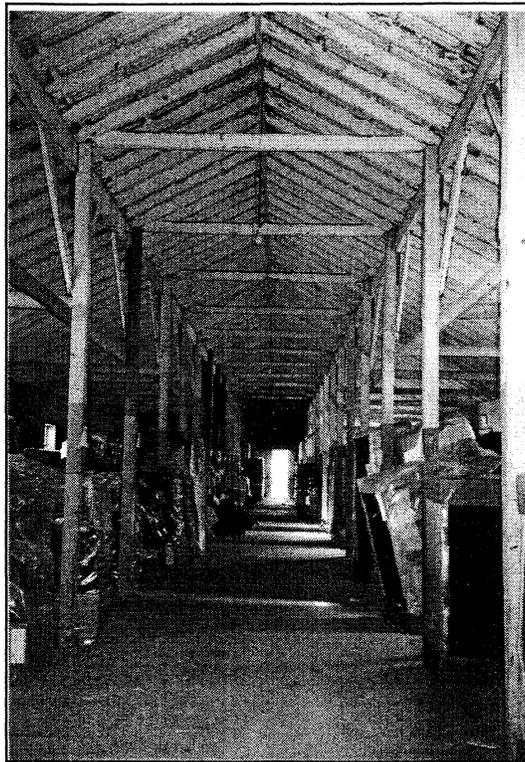


FIGURE E.5. INTERIOR VIEW ALONG CENTRAL AISLE, SHOWING ORIGINAL STRUCTURAL POSTS AND FRAMING (PHOTOGRAPH BY JANET PARKHURST, JANUARY 2005).

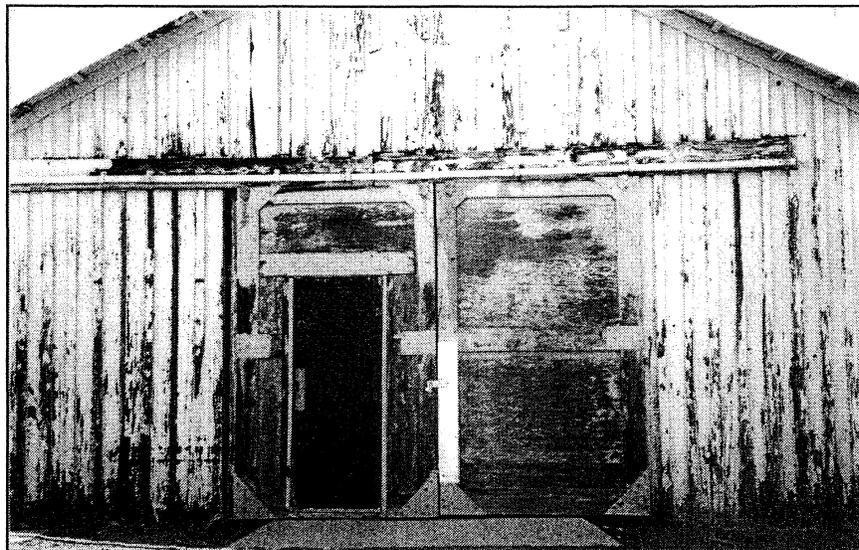


FIGURE E.6. NON-ORIGINAL EAST SLIDING DOOR WITH PERSONNEL DOOR INSTALLED IN ITS LEFT LEAF, A PLYWOOD AND BOARD ASSEMBLY OF THE TYPE SEEN ON SEVERAL OTHER STABLE BUILDINGS (PHOTOGRAPH BY JANET PARKHURST, JANUARY 2005).



FIGURE E.7. ORIGINAL DOUBLE-HUNG WINDOW FOR THE SOUTH STORAGE SPACE, MISSING SASH. NOTE TYPICAL WIRE-MESH GRILL (PHOTOGRAPH BY JANET PARKHURST, JANUARY 2005).

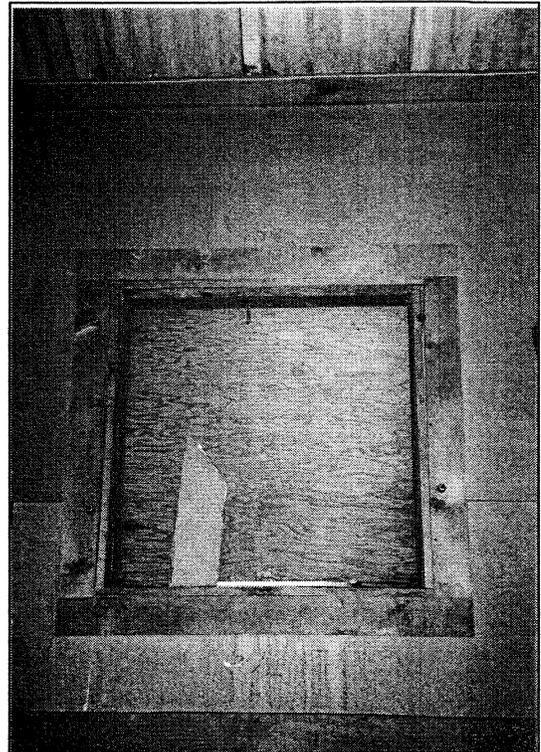


FIGURE E.8. INTERIOR VIEW OF A SOUTH STALL WINDOW SHOWING FRAME FILL AND NON-ORIGINAL CASING USED TO FIX A FORMER HOPPER. BOARDED UP BECAUSE SASH IS MISSING (PHOTOGRAPH BY JANET PARKHURST, JANUARY 2005).

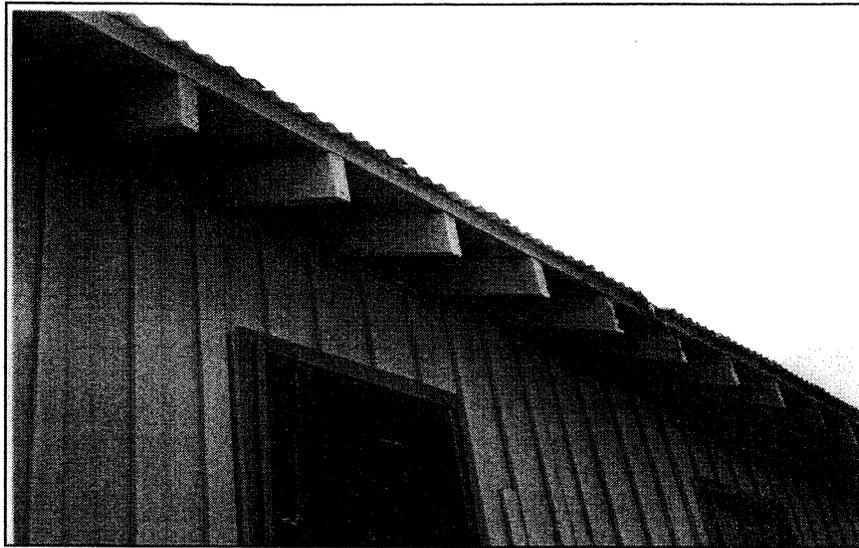


FIGURE E.9. EAVES WITH EXPOSED 2" X 6" RAFTERS, NORTH FAÇADE, IN FAIR CONDITION (PHOTOGRAPH BY JANET PARKHURST, JANUARY 2005).

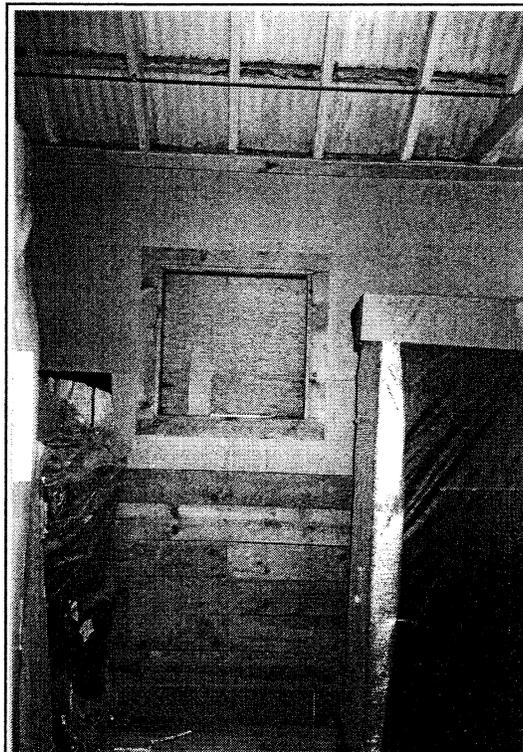


FIGURE E.10. STABLE INTERIOR AREA, NON-ORIGINAL 1950S-ERA WALL CLADDING ON SOUTH WALL (PHOTOGRAPH BY JANET PARKHURST, JANUARY 2005).

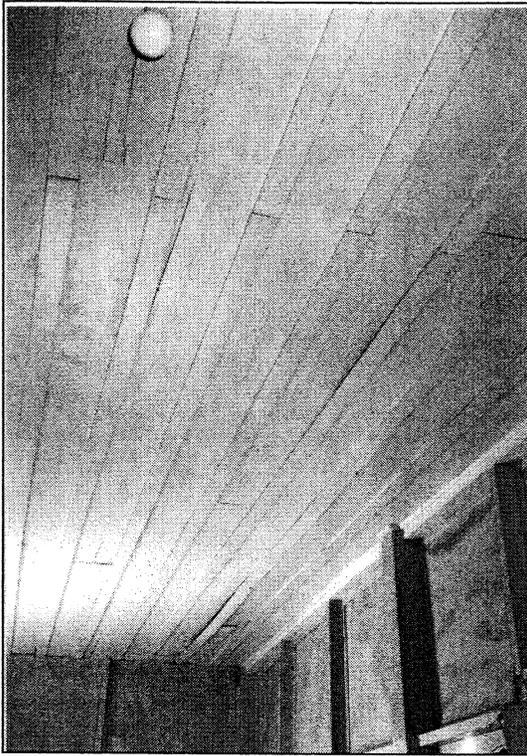


FIGURE E.11. ORIGINAL BOARD-AND-BATTEN CEILING IN THE IN THE NORTH ROOM OF THE BUILDING (PHOTOGRAPH BY JANET PARKHURST, JANUARY 2005).

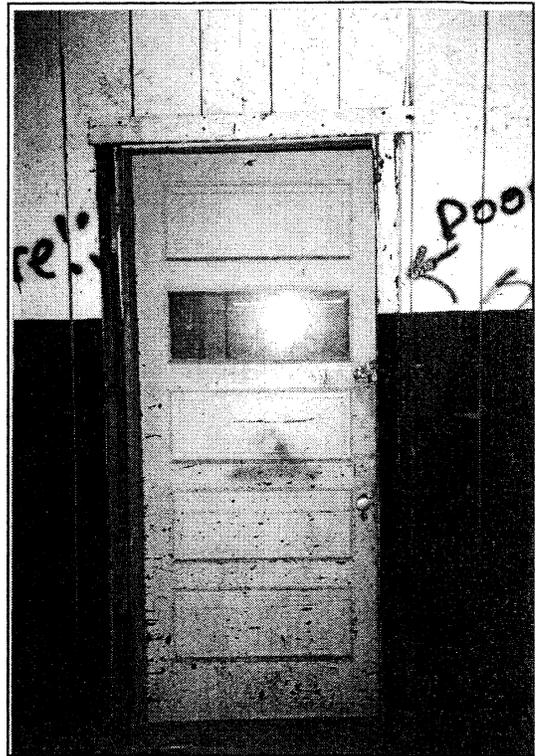


FIGURE E.12. OLD FIVE-PANEL DOOR FOR FORMER GRAIN AND FORAGE ROOM AT SOUTHEAST END OF BUILDING (PHOTOGRAPH BY JANET PARKHURST, JANUARY 2005).

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 E-S.3).

B. Early Views: Early views of Building 30027 are found on the initial property record card, Q.M.C. Form No. 173a, and the 1941 card, Q.M.C. Form No. 117 (Figure E.2, Figure E-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 UTMs. 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 30027 (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 30027 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. 125. 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. 125. 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.

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 30027 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.

SECTION C. PLATE 58

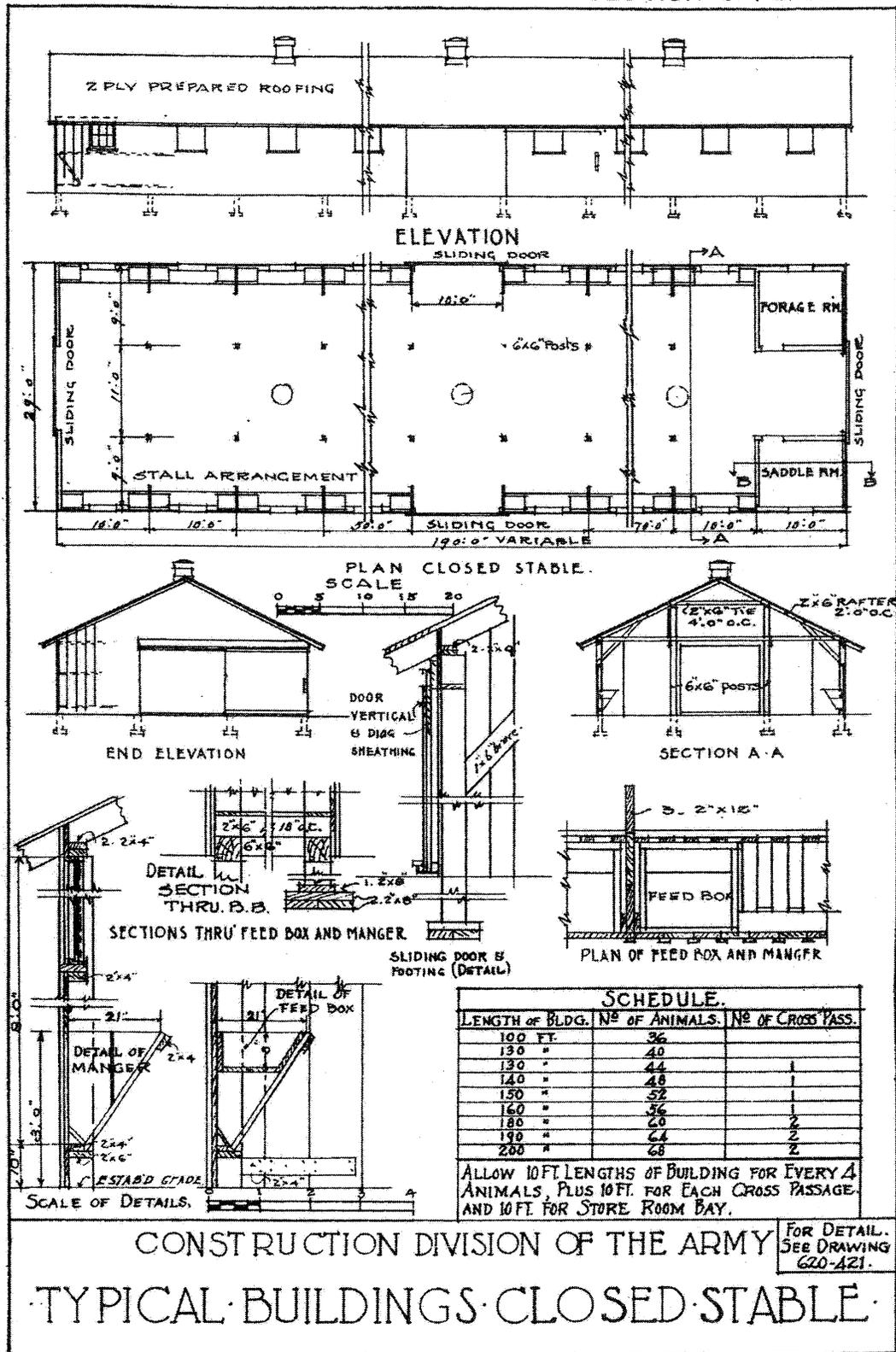


FIGURE E-S.3. "TYPICAL BUILDINGS, CLOSED STABLE." A 1919 STANDARDIZED Q.M.C. PLAN VERY SIMILAR TO FORT HUACHUCA'S CAVALRY STABLES (CONSTRUCTION DIVISION OF THE ARMY 1919:SECTION C PLATE 58).

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.