FORT HUACHUCA, CAVALRY STABLE
(Building No. 30026)
(Building No. 88)
(Building No. 124)
(Building No. 3037)
Clarkson Road
Sierra Vista vicinity
Cochise County
Arizona

HABS AZ-210-D
AZ-210-D

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

HISTORIC AMERICAN BUILDINGS SURVEY

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HABS NO. AZ-210-D

Location: Building 30026 is located along the west side of Clarkson Road, north of the intersection with Hungerford Avenue. It is the middle 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 D.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	3491208.99	560007.36
SW	3491198.76	560004.02
NE	3491188.25	560070.87
SE	3491178.25	560067.55

Date of Construction: 1916.

Designer: Quartermaster Corps.

Builder: United States Army.

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

Present Use: Vacant.

Significance: Building 30026 is a modified but 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).

LIST OF FIGURES

PART I. HISTORICAL INFORMATION

A. Physical History

1. Date of erection: According to U.S. Army Quartermaster Corps Form No. 173a (1916), this building and the other six cavalry stables were completed 5 January 1916 (Figure D.2; HABS No. AZ-210-D-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). However, the photograph attached to U.S. Army War Department Q.M.C. Form No. 117 (1941) shows wagons stored in its paddock (Figure D-S.1). In a 1951 inventory, this building was still classified as a stable (U.S.A.C.E. 1951). By 1955, the building had become a storage facility (Post Engineer Office 1955).

It retained this use–general-purpose storage–until 1981, when it became an engineer housing maintenance building. In 1982, it was partitioned and converted to office use, and its classification changed to general purpose administration. In 2003, it was re-classified again as a general-purpose storage facility (U.S. Army Form 2877). Building 30026 is currently vacant and will be demolished.

4. Builder, contractor, and 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 a recently constructed building. Unlike photographs of the other stables, there are no laborers visible (Figure D.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 (U.S.A.Q.M.C. 1916). 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 30026, have been modified to a greater or lesser extent. Building 30026 has undergone moderate exterior modifications and extensive interior modifications. Exterior modifications include door opening alterations, original door replacement, and the addition of two non-original doors. In addition, there was alteration and replacement of all double-hung windows in 1982 when the building was partitioned into offices. Although the interior of the building has been compromised, its exterior retains much of its essential character, and it remains an integral, contributing component of the whole complex.

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 (1941), the 1941 property record card, there was a forage and grain room to the north and a saddle shop with a 9-ft-square tool room addition to the south (Figure D-S.1). These rooms were demolished during the 1982 remodel.

Possibly during the late 1930s or early 1940s, the W.P.A. era at Fort Huachuca, a stone retaining wall and stairs were added at the northwest and west ends of the building (Parkhurst and Thiel 2005.)

When the building was modified to a warehouse, probably in the early 1950s, a system of wainscot-level horizontal boards with early gypsum wallboard above was installed on the interior face of the former open-frame perimeter walls. Some of this early cladding can be seen in the west, storage end of the building.

In 1982, the east half of the building was converted to offices, and the extensive partitioning that occurred currently remains. This work involved the removal of a few structural posts and the demolition of the historic storage rooms, although their concrete floors were retained. Openings for the double-hung windows and a few stall windows were altered to accommodate aluminum, double-hung window sash. Mechanical equipment was installed, in particular evaporative coolers, which required removal of window sash for ducts. During this 1982 work, the west half of the building was used for storage. Wire-mesh cages were created from former stall bays defined by the original posts, and a large storage room was built at the west end.

After the building was vacated recently, destructive, environmental hazards inspection work was undertaken. In the storage end of the building, removal of ceilings in the cages and some wall cladding allows the observer to view the original structure.

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 30026 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. In addition, its partly visible, exposed structural system is an elegant, although rustic, integration of repetitious components (Figure D.3; HABS No. AZ-210-D-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 30026 appears to be relatively sound in spite of its vintage, its vacant, neglected state, and its current exposure to the elements through open doors and some unglazed window openings. Its foundation has a large structural crack on the northwest corner but is otherwise in fair condition. Its exterior wall cladding is weathering and currently is in fair-to-poor condition.

B. Description of Exterior

1. Overall dimensions: Building 30026 is 219 ft, 9 inches long by 30 ft, 5 ¾ 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 near the east end of the building, but it is exposed along most of the north façade and elsewhere. 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 mostly in fair condition with some narrow cracks and abrasion, but there are two large structural cracks on the north wall near the west end. They are in the zone of the large deciduous trees adjacent to the building and extend through a stone retaining wall feature. Roots may have caused the cracks. 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 D.4).

Two square areas in the concrete floor of the former east store rooms indicate where original posts were removed for the 1982 modifications. The concrete showing below each phantom post is undoubtedly the top of an original concrete pad, approximately 7 inches square in plan, of the sort that was installed beneath every post. The pad was level with the top of the wall foundation.

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 ¾ inch by 9 ½ inches, and the battens are approximately ¾ 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. Although painted, some boards and battens are split and broken or dislodged from the frame. Deterioration is especially evident along the lower edges. The last coating of paint is also weathered and deteriorating, especially on the south façade (Figure D.5).

4. Structural system: Due to the extent of the modifications, with the exception of posts, it is difficult to observe the original structural system except in the west storage area, where the ceiling or wall cladding has been demolished. Many, but not all, of the posts remain. (They have been removed in the two offices at the far eastern end of the building. Compensation for the structural deficiency undoubtedly occurs above the ceilings and cannot be observed.) Remaining posts are sheathed in painted boards in the office end of the building. They are painted but otherwise unmodified in the storage end.

The structural system 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. Since ties and braces occur well above the ceiling level in the modified areas, it can be assumed that the original structure remains relatively unmodified. Typically, posts would be braced and tied to the walls, the sloping roof rafters, and across the aisle by lateral, longitudinal, and diagonal members. Posts, roof framing members, and roofing nailing boards appear to be of redwood, whereas wall studs and exterior board siding are probably fir wood. Connectors are nails.

The bearing walls are 2" x 6" studs, visible in one area where sheathing has been demolished on the north inner wall face. The walls are attached to a 6" x 8" wood sill on the concrete stem wall. Undoubtedly there are the typical double plates atop the studs and horizontal 2" x 4" blocking at three levels above the sill and openings are double-framed.

The posts are 6" x 6" redwood timbers that extend from the concrete foundation pad 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. It can be observed that posts are tied, in typical fashion, longitudinally along the aisle at the top and at 9 ft, 7 inches above the floor. 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. Where visible in the storage area of Building 30026, most structural members are intact. However, a few tie beams have been cut (Figure D.6).

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.

With the exception of posts and the small areas of roof framing and wall, the condition of the structural framing cannot be observed due to extensive modifications in this building.

5. Entrance aprons, ramps, platforms and stairs: Photographs on Q.M.C. forms 173a and 117 do not show any kind of grade-level apron at the principal, east entry up to 1941 (Figure D.2; Figure D-S.1). The current, slightly sloped, angled concrete apron between the door and the road pavement probably appeared when the building was converted to a storage facility, in the 1950s. This apron was once painted yellow with diagonal black stripes.

Due to the site slope, ramps or stairs have been needed to provide access from grade to the other entrance doors of Building 30026. Recent documentation of Building 30026 shows a wooden loading platform for the south sliding door (Chattey 1998:11). This platform no longer exists. Nor is there a platform to serve the current door on the north façade.

On the west end, a 13-ft-wide strip of earth building "pad" for Building 30026 is contained in a stone retaining wall approximately 2 ft, 6 ½ inches high from the asphalt pavement at grade. This retaining wall continues around the north façade of the building at the west end. It may have been one of many Depression-era, W.P.A. projects constructed at Fort Huachuca (Parkhurst and Thiel 2005). It is an additional 4 ft, 6 inches from the building pad to the west door sill. To accommodate the rise in this location, a feature has been built includ-

ing a base of stone stairs, a concrete landing, and a flight of wood stairs to the main door (Figure D.7).

The base stairs are rubble stone masonry with variable width treads and variable height risers. They are incorporated into the retaining wall. The landing is a well-constructed 3 ½-inch-thick slab of very fine aggregate concrete. There is a 2-inch-diameter, threaded metal pipe railing here. The stone, concrete, and pipe work may predate the wooden stairs. The wooden stairs are 4-ft wide with treads built from two 2" x 6"s supported on three notched stringers. The railing is built of 2" x 4"s on 3 ½-inch-square posts.

6. Chimneys: There are seven metal flues through the roof to serve the office end of the building.

7. Openings:

a. Doorways and Doors: Building 30026 has five exterior doors. The east door opening has been obscured by infill. So, too, has the west door, but the size of its opening can still be read. The current north opening may be original. Otherwise, this opening may have been located in a zone east of this door where wallboards have been cut short and the sill shows. The north door itself is a later addition. The photograph on Q.M.C. Form No. 173a shows there was no south opening originally (Figure D.2). Thus, the sliding door at the west end of the south façade and the personnel door near the east end are later additions.

When the extensive modifications occurred, the principal east entry was framed in with board-and-batten sheathing around a centrally located, 3-ft, 0-inch by 6-ft, 8-inch flush panel, metal door. Both the door and its metal frame are currently dislodged. The west opening has also been filled in around a personnel door (Figure D.7). This opening was originally 10 ft, 2 inches wide by 9 ft, 2 inches high. A 3-ft, 0-inch by 6-ft, 8-inch flush panel, wooden door has been installed to the north of center. The fill is plywood, in weathered condition today.

The single-leaf sliding door on the south façade slides to the east of a 5-ft, 8 ½-inch-wide by 8-ft, 9-inch-high opening. The leaf is suspended by metal brackets from a metal track. Similar in construction to doors seen on the other cavalry stables, it is more recent than 1941. It is 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 (Figure D.8). The second door opening toward the east end of the south façade is for a 3-ft, 0-inch by 6-ft, 8-inch door that is currently missing.

b. Windows: Windows are a very interesting feature on this building and, from outside, they reflect either the original interior use when the building was a stable or later office use. They are located on the south and north walls only. Most, but not all, of the original stall windows remain, even though some of them later served office spaces. They are the typical, square, six-pane windows with glazing in a rough opening approximately 2 ft, 10 inches square. The window sash itself was manufactured (Figure D.9).

Probably originally all hinged, the windows are currently either fixed, up-swinging hoppers or missing. Many of these former stall windows are secured by the typical framed grills with square wire mesh seen elsewhere. Sash is missing from stall window openings at the west

end of both façades. This includes the westernmost three windows on the south façade and the westernmost four windows on the north façade. Six of these openings are secured by wood-framed mesh grills, while the seventh is boarded up by a composition panel.

None of the original double-hung windows for the former saddle room and forage and grain room remain. When modified to office use, these openings were greatly altered to accommodate single and multiple one-over-one, aluminum double-hung windows. In addition, on each façade, some stall window openings on the east end were modified for aluminum, double-hung sash. Another conversion to aluminum sash occurs in the fifth bay from the west on the north façade where there is a small, aluminum sliding window that serves a latrine. This window is 3 ft, 5 ½ inches wide by 2 ft, 1 ½ inches high.

The two offices on either side of the east entry have an identical, aluminum window bank containing four 2-ft, 4-inch-wide by 3-ft, 0-inch-high double-hung windows separated by 6-inch-square posts. The window banks are trimmed on the exterior and interior with 3 ½-inch wood casing mitered at the corners. The single aluminum windows have similar casings. Aluminum windows are secured on the exterior by steel, diamond-mesh grills painted red brown. These grills are in better condition than those of wooden frame.

When converted to an office, the sash from some of the stall windows and aluminum windows was removed to accommodate ductwork of evaporative coolers mounted on stands outside. There are seven cooler openings in total.

The windows, exterior casing, and wood grill frames are very weathered but repairable. Steel diamond-mesh grills are in good condition. Window type and opening alterations are most noticeable on the north façade.

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 (U.S.A.Q.M.C. 1916). It has been painted light gray on the exterior. 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 weathering of rafter ends, some deformed or torn roofing, and paint peeling.

C. Description of Interior

1. Floor plan: Like Building 30031, the interior of Building 30026 has been extensively modified. No plan was found of the office conversion project. There is, however, a schematic evacuation diagram without scale, found on the premises, which can help the reader understand the layout (Figure D-S.3). The schematic diagram is oriented so east is up. In 1982 over half of the building, comprising the east portion, was partitioned by 2" x 4" frame walls

into 12 office-related spaces with 8-ft-high suspended ceilings. The remaining 104 ft to the west served primarily storage functions.

What does not show on the schematic diagram is the strategic placement of the original structural posts, which required integration into the design. The post location, allowing for a 10-ft-wide corridor originally, undoubtedly influenced the mostly symmetrical, central corridor design that resulted. The visitor enters the building vestibule at the east end where there are larger offices to the north and south that exit into a 6-ft-wide corridor. Near this east end is a lateral corridor leading to the south personnel door. The central corridor continues, except where interrupted by an elongated, octagonal-shaped trophy room, through the double-loaded office zone (Figure D.10).

In the trophy room zone, the corridor widens to the original width and passes through and around both sides of this unusual-shaped space. Walls of four affected rooms to the north and south also angle to accommodate the trophy room. It is interesting to note that the west walls of two of these offices frame directly into windows. All other office rooms are rectangular in plan. Since partition walls are set inside the original aisle, posts are sometimes fully exposed inside the office spaces (HABS No. AZ-210-D-3).

West of the office zone, where the 8-ft suspended ceiling ends, the storage zone begins. Here the corridor first opens into a receiving area with a 10-ft-high ceiling served by the north sliding door. The corridor then widens as it passes through an area of 8-ft-high ceilings, now largely dismantled, with two small offices, a latrine, and six chain-link-fence-enclosed, storage cages in bays defined by the original exposed posts. The cages, one or two bays wide, have lateral 2" x 4" frame walls. The corridor ends at a 4-ft-wide swinging door that opens into a large 29-ft by 30-ft rear storage room. Just east of this storage room is a wide receiving area served by the south, exterior, sliding door. The west exterior door has access into this room (HABS No. AZ-210-D-4).

2. Stairways: None.

3. Flooring: The original concrete slab floors of the former storage rooms remain. Well-built, they have control joints at the middle of now-missing posts, approximately 9 ft, 6 inches on center, and are installed to be level with the sill. Most of the remainder of the building has concrete slab flooring which is largely not visible in the office zone. The concrete was likely installed during the 1950s when the building became a general purpose warehouse. Currently much of the concrete flooring of the office zone is covered by a system of 2" x 4" spacing boards installed horizontally with 1-inch plywood above. This was obviously meant for the installation of carpeting that has been removed. Some of the plywood and spacing boards were torn up for the environmental inspection.

The latrine floor is frame, not concrete, and elevated to accommodate plumbing drains. It is a wood-frame system of 1 ¼" x 9" joists at variable widths on center with a ¾-inch plywood deck.

4. Wall and ceiling finish: None of the original, unfinished, open frame walls of the stabling area remain without cladding. Since the original east storage rooms were removed, nothing remains of their walling either.

In the office zone, the interior faces of perimeter walls and non-original frame partitions are clad in gypsum wallboard. The T.V. Room and B-Troop Office, rooms with angled walls, have areas of acoustic tile (Figure D-S.3). A base board of 4 inches was typical in the office zone, but it has been largely removed. Some base remains in the Copy Room only. As mentioned, original structural posts in this part of the building are faced with wood boards and trimmed in quarter round at the ceilings and sometimes the wall edges.

In the storage area, the interior faces of building perimeter walls are primarily clad in gypsum wallboard. However, there are areas with a wainscot of horizontal, 7 ½-inch board sheathing and early gypsum wallboard above, probably remaining from the 1950s warehouse era (Figure D.11). The cages are defined by 2" x 4" partitions built between columns along the aisle and back to the perimeter walls. As mentioned, some storage spaces are two bays wide. Cage walls are 8 ft high and frame into a 2" x 4" ceiling grid. Cross walls for cages are sheathed in gypsum wallboard, while aisle walls have chain-link metal mesh in steel frames, painted black, with doors of the same material.

Office zone drop ceilings are built of frame, approximately 8 ft above the floor. Where exposed, members are 2" x 8"s. Like walls, they are clad in gypsum wallboard. Nearly all spaces of the storage area had drop ceilings clad in gypsum wallboard, but much of the wallboard has been demolished, leaving the framing members exposed. Ceiling structure in the cages is a grid, not standard framing.

5. Openings:

a. Doorways and doors: All interior doors are missing, except the door to the west store room. It is a 4-ft, 2 ½-inch-wide by 8-ft, 0-inch-high, two-panel, door painted white.

b. Windows: Noted elsewhere.

6. Decorative features: None.

7. Hardware: None original.

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 some point a space heater with a 1 ¼-inch gas connection was installed in the building. In 1983, seven wall-mounted heaters were installed for a price of $3,513.00 (U.S. Army Form 2877). It is not known when the evaporative coolers were installed. They were raised on wood or metal stands, and their ducts passed through the window openings. Some of these dismantled units appear to be currently stored inside the building.

b. Lighting: Q.M.C. Form No. 173a indicates this building was provided with electric lighting originally. No details about lighting type were given. In 1936, a hand-written entry on this form notes the addition of a 5-amp electrical switch (U.S.A.C.M.C. 1916). The real property form notes a 30-amp connection with #8 wire. In 1981, wiring was installed for $579.00 (U.S.

Army Form 2877). For the 1982 conversion, fluorescent fixtures were typically installed. Electricity was also provided for evaporative coolers.

c. Plumbing: The historic property record cards indicate the building was initially fitted with sewer and water connections. There were a ¾-inch water connection and a 4-inch sewer by 1941 (U.S.A.C.M.C. 1916; U.S. War Dept. 1941). Plumbing connections can be seen on the north façade, adjacent to the latrine. Inside, the latrine is fitted with urinals on the east wall.

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 30026 is the middle unit 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 of Building 30026 consists of its former paddock area (between this building and Building 30027), the adjacent paddock to the left (between this building and Building 30025), and a zone to the rear and in front.

Most of the former paddock and rear zone is currently surfaced in asphalt pavement. However, there is an elevated area of earth adjacent to the foundation on the west façade and west end of the north façade. In the 1941 photograph, an earth berm can be seen toward the west end of the stable (Figure D-S.1). Currently the earth is contained by a mortared stone retaining wall that may relate to Depression-era W.P.A. work at Fort Huachuca (Parkhurst and Thiel 2005). Rooted in this earth pad near the northwest corner are three old deciduous trees. The stone wall is approximately 10 inches wide and capped with mortar. It is approximately 2 ft, 0 inches high on the north and 2 ft, 6 ½ inches high on the west where it incorporates the stone stairs (Figure D.12).

Between Buildings 30026 and 30025, the former paddock for 30025, the site is largely scraped earth. There is a small Aleppo pine adjacent to the south façade near the west end.

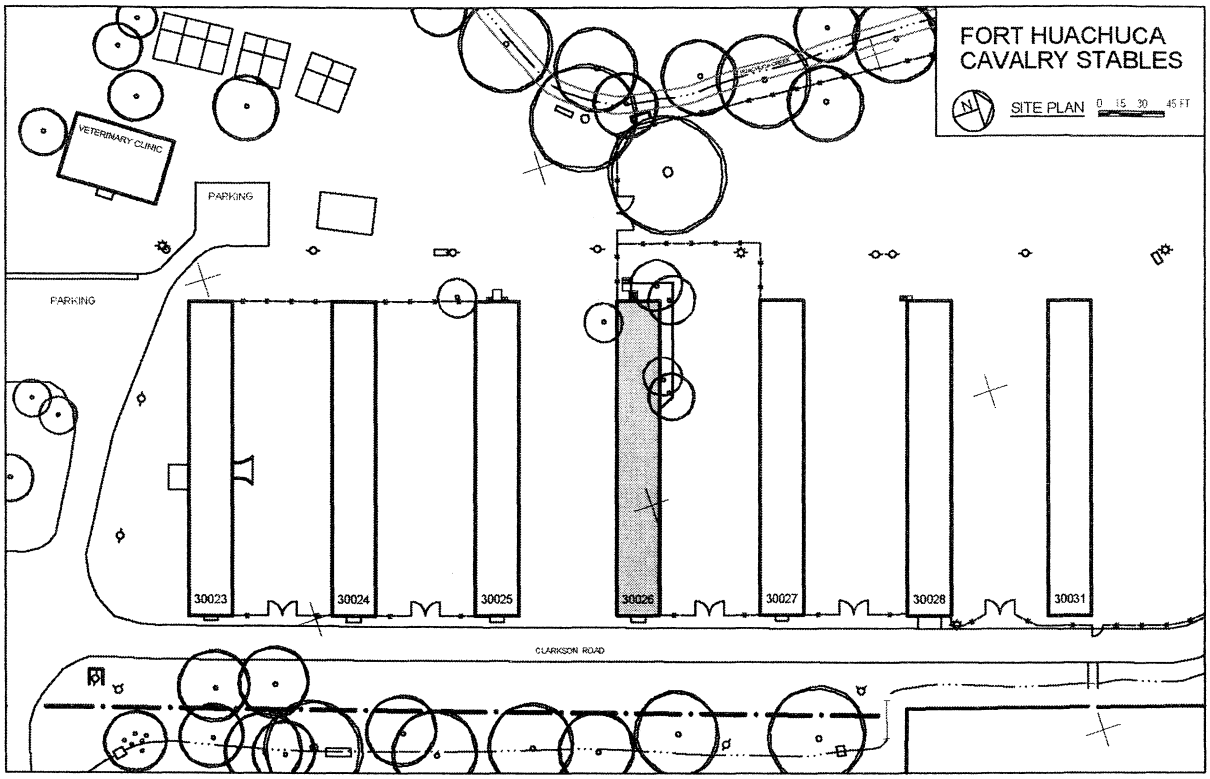


FIGURE D.1. SITE PLAN SHOWING BUILDING 30026 LOCATION.

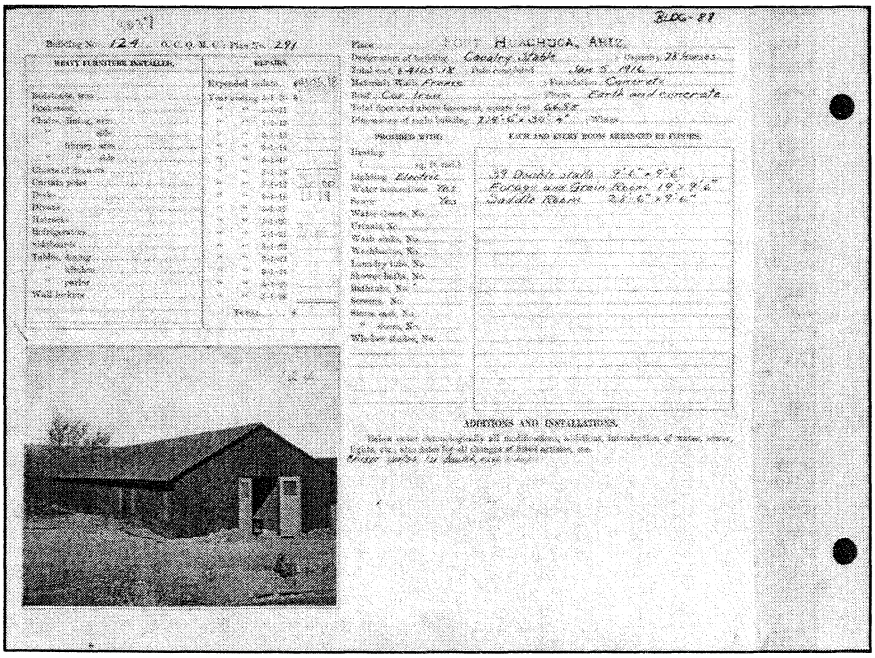


FIGURE D.2. U.S. ARMY QUARTERMASTER CORPS FORM, NO. 173A (1916); INITIAL PROPERTY RECORD CARD, BUILDING 30026 (ON FILE AT THE FORT HUACHUCA HISTORICAL MUSEUM).

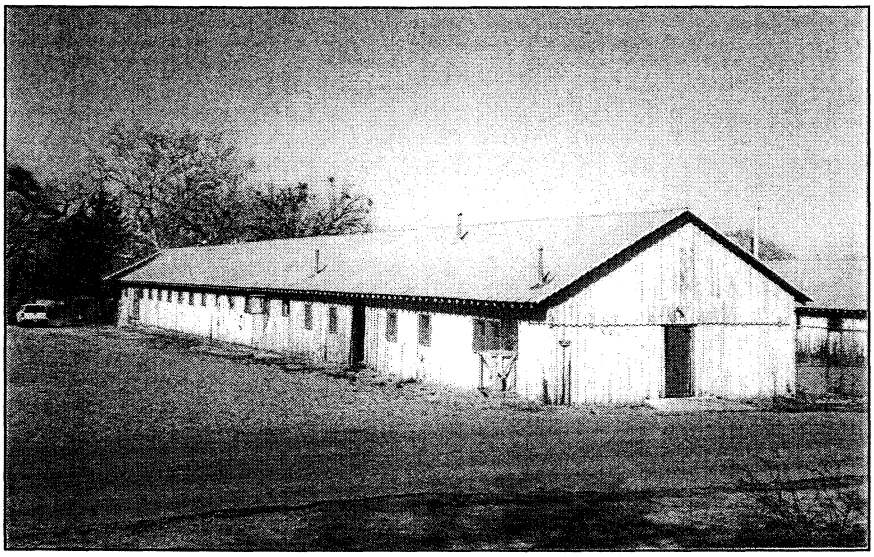


FIGURE D.3. BUILDING 30026, THREE-QUARTER VIEW FROM SOUTHEAST, SHOWING ITS GABLED FORM AND WINDOW RHYTHM (PHOTOGRAPH BY JANET PARKHURST, JANUARY 2005).

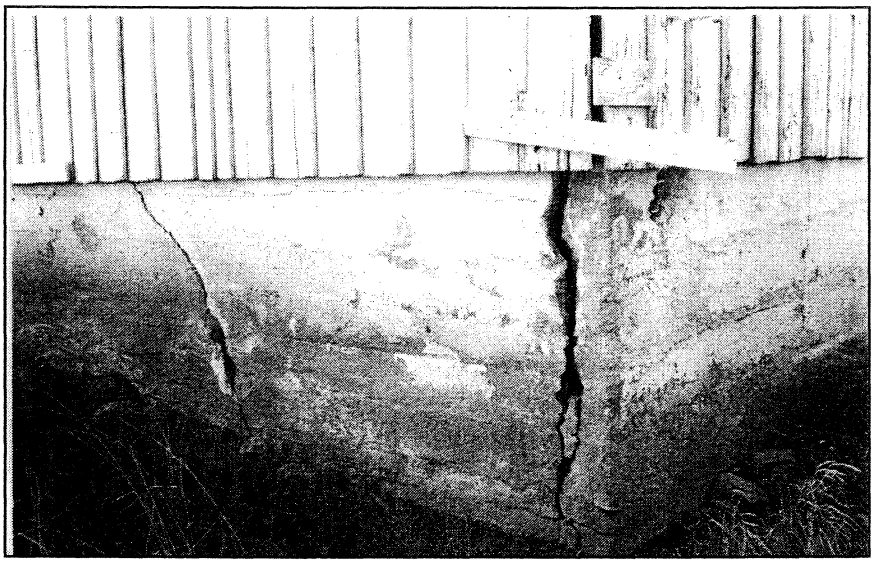


FIGURE D.4. CONCRETE STEM WALL AT NORTHWEST CORNER, SHOWING SERIOUS FOUNDATION CRACKS (PHOTOGRAPH BY JANET PARKHURST, JANUARY 2005).

FIGURE D.5. EXTERIOR SOUTH WALL, SHOWING DETERIORATED BOARD-AND-BATTEN SIDING AT BASE (PHOTOGRAPH BY JANET PARKHURST, JANUARY 2005).

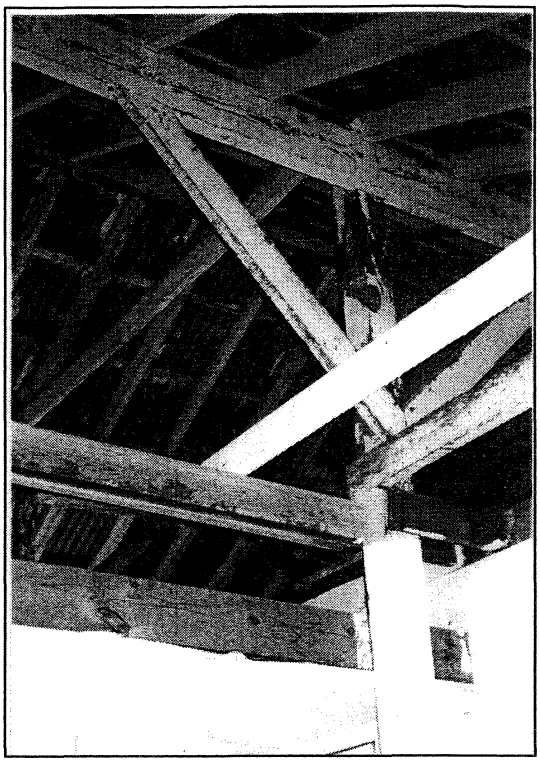


FIGURE D.6. ROOF STRUCTURE, VISIBLE ONLY IN OPEN AREA AT WEST END OF BUILDING (PHOTOGRAPH BY JANET PARKHURST, JANUARY 2005).

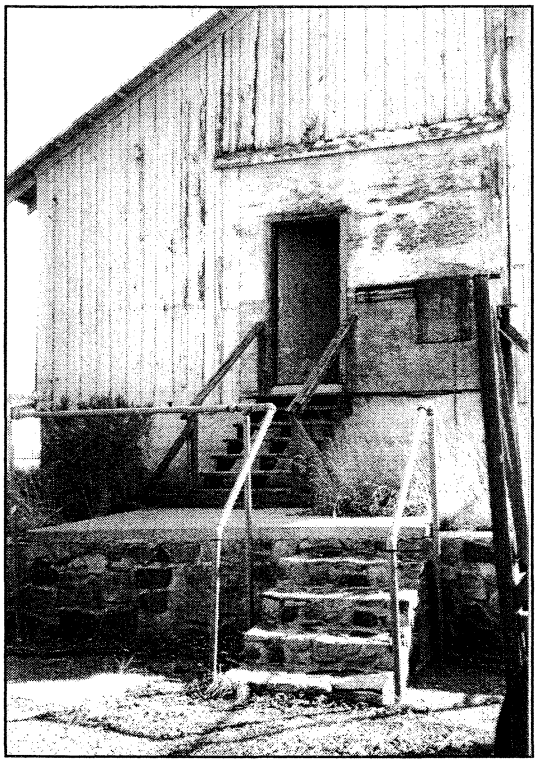


FIGURE D.7. STONE RETAINING WALL AND STAIRS, CONCRETE LANDING, AND WOODEN STAIRS PROVIDING VERTICAL ACCESS TO THE WEST DOOR (PHOTOGRAPH BY JANET PARKHURST, JANUARY 2005).

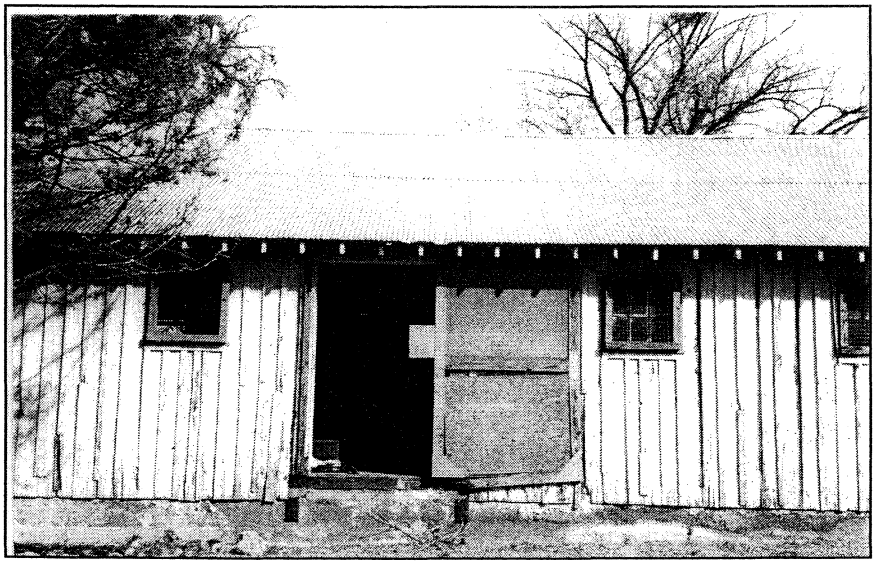


FIGURE D.8. SOUTH DOOR, A SLIDING ASSEMBLY OF PLYWOOD WITH BOARD STILES AND RAILS (PHOTOGRAPH BY JANET PARKHURST, JANUARY 2005).

FIGURE D.9. STALL WINDOW ON SOUTH WALL WITH SECURITY GRILL DISLODGED (PHOTOGRAPH BY JANET PARKHURST, JANUARY 2005).

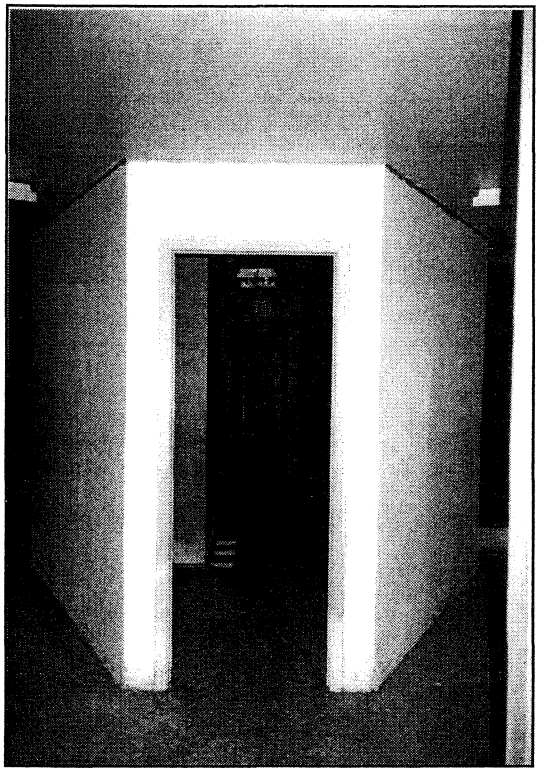


FIGURE D.10. CENTRAL TROPHY ROOM WITH ELONGATED, OCTAGONAL WALLS, FROM WEST (PHOTOGRAPH BY JANET PARKHURST, JANUARY 2005).

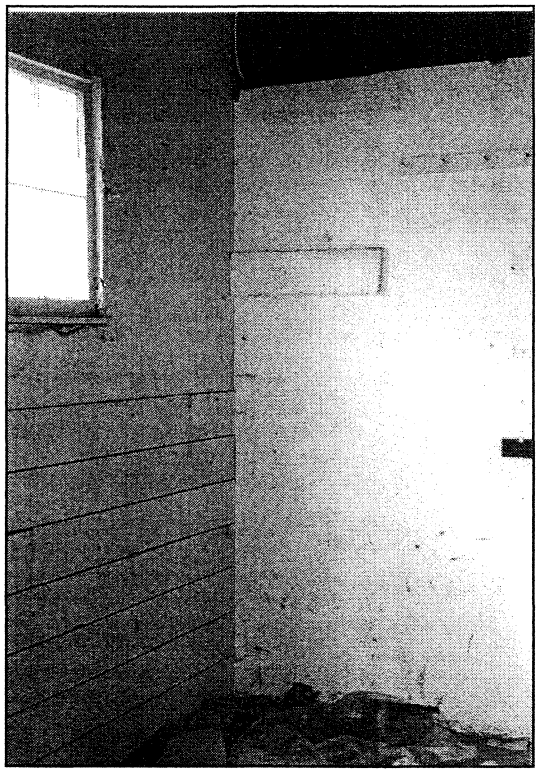


FIGURE D.11. STORAGE AREA SHOWING 1950S HORIZONTAL BOARD-AND-GYPSUM WALLBOARD CLADDING ON SOUTH PERIMETER WALL, INSTALLED DURING USE OF THE BUILDING AS A STORAGE FACILITY (PHOTOGRAPH BY JANET PARKHURST, JANUARY 2005).

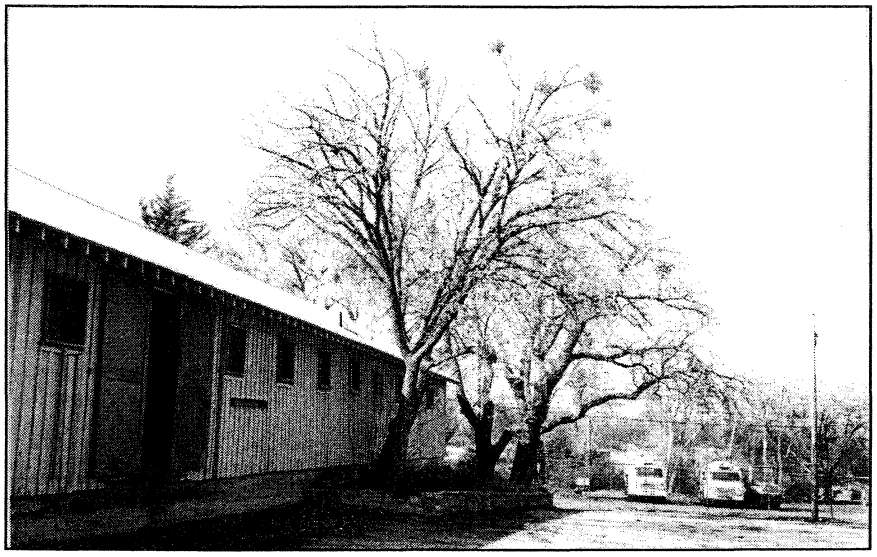


FIGURE D.12. OLD DECIDUOUS TREES IN EARTH PAD CONTAINED BY STONE RETAINING WALL, POSSIBLY BUILT DURING THE W.P.A. ERA. PHOTOGRAPH IS TAKEN AT THE WEST END OF THE NORTH FAÇADE (PHOTOGRAPH BY JANET PARKHURST, JANUARY 2005).

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 D-S.4).

B. Early Views: Early views of Building 30026 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 D.2; Figure D-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 30026 (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 30026 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 reactivation 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. 124. 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. 124. 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.

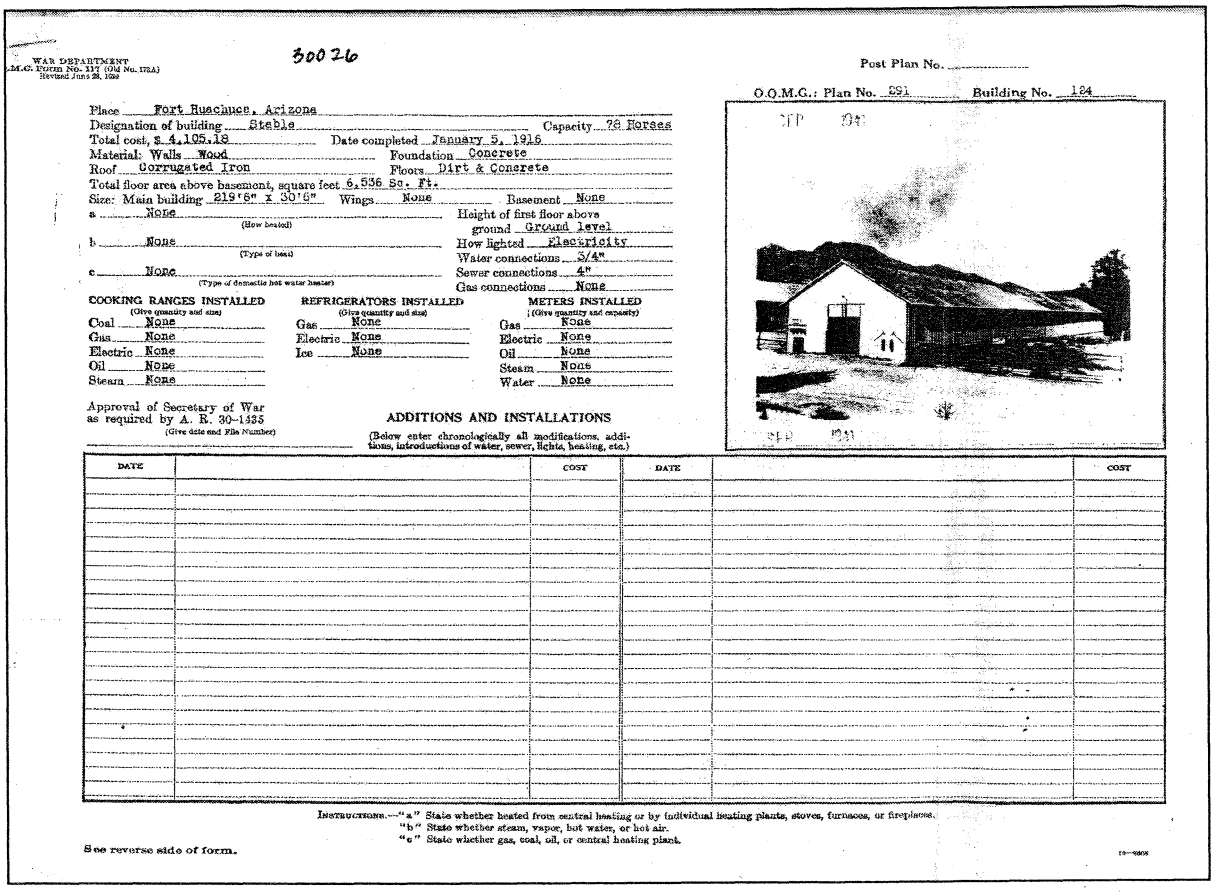
Drawings:

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 30026 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.

F. Supplemental Material:



WAR DEPARTMENT
M.C. Form No. 117 (Old No. 173A)
Revised June 28, 1932

30026

Post Plan No. _____

O.Q.M.G.: Plan No. 891 Building No. 184

Place Fort Huachuca, Arizona
Designation of building Stable Capacity 78 Horses
Total cost, $ 4,105.18 Date completed January 5, 1916
Material: Walls Wood Foundation Concrete
Roof Corrugated Iron Floors Dirt & Concrete
Total floor area above basement, square feet 6,556 Sq. Ft.
Size: Main building 219'6" x 30'6" Wings None Basement None
a None (How heated) Height of first floor above ground Ground Level
b None (Type of heat) How lighted Electricity
c None (Type of domestic hot water heater) Water connections 3/4"
Sewer connections 4"
Gas connections None

COOKING RANGES INSTALLED (Give quantity and size)
Coal None
Gas None
Electric None
Oil None
Steam None

REFRIGERATORS INSTALLED (Give quantity and size)
Gas None
Electric None
Ice None

METERS INSTALLED (Give quantity and capacity)
Gas None
Electric None
Oil None
Steam None
Water None

Approval of Secretary of War as required by A. R. 30-1335 (Give date and File Number)

ADDITIONS AND INSTALLATIONS
(Below enter chronologically all modifications, additions, introductions of water, sewer, lights, heating, etc.)

DATE		COST	DATE		COST

Instructions.—"a" State whether heated from central heating or by individual heating plants, stoves, furnaces, or fireplaces.
"b" State whether steam, vapor, hot water, or hot air.
"c" State whether gas, coal, oil, or central heating plant.

See reverse side of form.

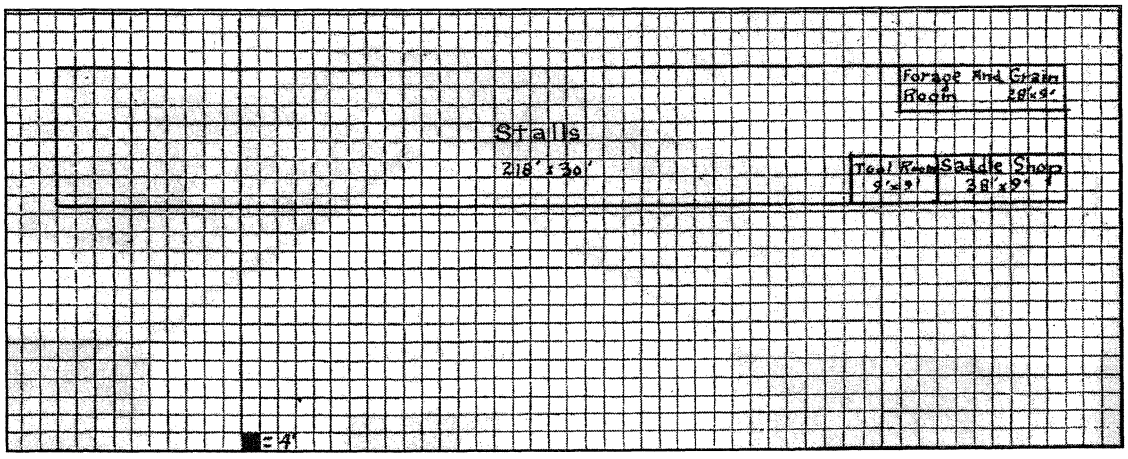
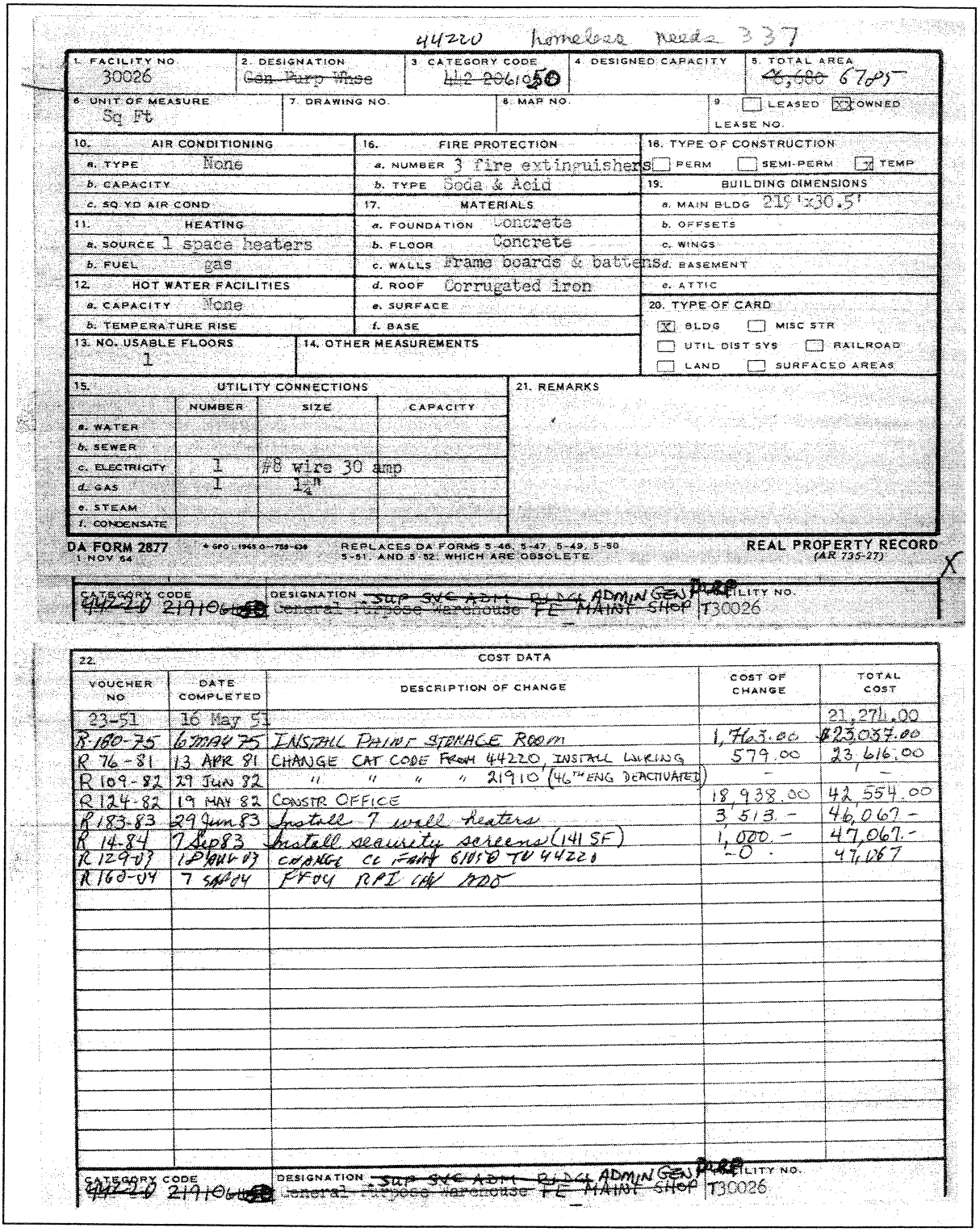


FIGURE D-S.1. QUARTERMASTER CORPS FORM NO. 117 (OLD FORM NO. 173A) FOR BUILDING 30026. A PLAN VIEW, PRESENT ON THE REVERSE SIDE, IS SHOWN (NATIONAL ARCHIVES, RECORD GROUP 77, ENTRY 393, HISTORICAL RECORD OF BUILDINGS, BOX 95, FOLDER 4).



44220 homeless needs 337

1. FACILITY NO.	2. DESIGNATION	3. CATEGORY CODE	4. DESIGNED CAPACITY	5. TOTAL AREA
30026	~~Gen Purp Whse~~	~~442 21610~~ 50		~~6,680~~ 670 SF

6. UNIT OF MEASURE	7. DRAWING NO.	8. MAP NO.	9. ☐ LEASED ☒ OWNED
Sq Ft			LEASE NO.

10. AIR CONDITIONING	16. FIRE PROTECTION	18. TYPE OF CONSTRUCTION
a. TYPE None	a. NUMBER 3 fire extinguishers	☐ PERM ☐ SEMI-PERM ☒ TEMP
b. CAPACITY	b. TYPE Soda & Acid	19. BUILDING DIMENSIONS
c. SQ YD AIR COND	17. MATERIALS	a. MAIN BLDG 21' x 30.5'
11. HEATING	a. FOUNDATION Concrete	b. OFFSETS
a. SOURCE 1 space heaters	b. FLOOR Concrete	c. WINGS
b. FUEL gas	c. WALLS Frame boards & battens	d. BASEMENT
12. HOT WATER FACILITIES	d. ROOF Corrugated iron	e. ATTIC
a. CAPACITY None	e. SURFACE	20. TYPE OF CARD
b. TEMPERATURE RISE	f. BASE	☒ BLDG ☐ MISC STR
13. NO. USABLE FLOORS 1	14. OTHER MEASUREMENTS	☐ UTIL DIST SYS ☐ RAILROAD
		☐ LAND ☐ SURFACED AREAS

15. UTILITY CONNECTIONS

	NUMBER	SIZE	CAPACITY
a. WATER			
b. SEWER			
c. ELECTRICITY	1	#8 wire 30 amp	
d. GAS	1	1¼"	
e. STEAM			
f. CONDENSATE			

21. REMARKS

DA FORM 2877 1 NOV 64 — * GPO: 1963 O—759-639 — REPLACES DA FORMS 5-46, 5-47, 5-49, 5-50, 5-51, AND 5-52, WHICH ARE OBSOLETE. — REAL PROPERTY RECORD (AR 735-27)

CATEGORY CODE ~~44220~~ 21910 — DESIGNATION ~~Sup Svc Adm Bldg~~ ADMIN GEN PURP ~~General Purpose Warehouse FE MAINT SHOP~~ — FACILITY NO. T30026

22. COST DATA

VOUCHER NO	DATE COMPLETED	DESCRIPTION OF CHANGE	COST OF CHANGE	TOTAL COST
23-51	16 May 51			21,271.00
R 180-75	6 MAY 75	INSTALL PAINT STORAGE ROOM	1,763.00	$23,037.00
R 76-81	13 APR 81	CHANGE CAT CODE FROM 44220, INSTALL LIGHTING	579.00	23,616.00
R 109-82	29 Jun 82	" " " " 21910 (46TH ENG DEACTIVATED)	-	-
R 124-82	19 MAY 82	CONSTR OFFICE	18,938.00	42,554.00
R 183-83	29 Jun 83	Install 7 wall heaters	3,513.-	46,067.-
R 14-84	7 Sep 83	Install security screens (141 SF)	1,000.-	47,067.-
R 129-87	10 AUG 87	CHANGE CC FROM 61150 TO 44220	-0-	47,067
R 160-04	7 SEP 04	PROG RPI CAT CODE		

CATEGORY CODE ~~44220~~ 21910 — DESIGNATION ~~Sup Svc Adm Bldg~~ ADMIN GEN PURP ~~General Purpose Warehouse FE MAINT SHOP~~ — FACILITY NO. T30026

FIGURE D-S.2. REAL PROPERTY RECORD CARD, DA FORM 2877, BUILDING 30026 (U.S. ARMY FORM 2877).

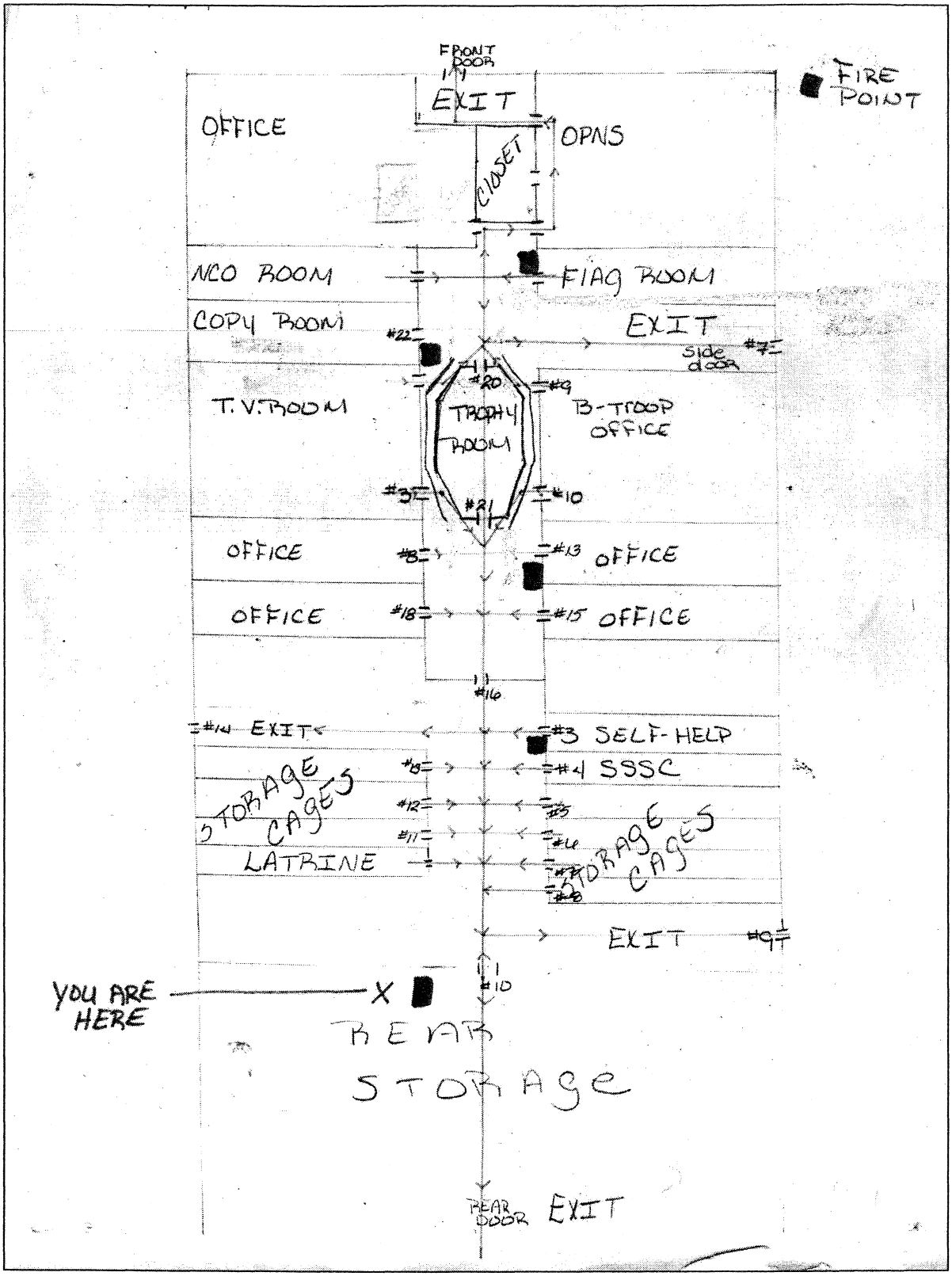


FIGURE D-S.3. "EVACUATION PLAN, BLDG. 30026." A FIRE ESCAPE PLAN, 1982 OR LATER.

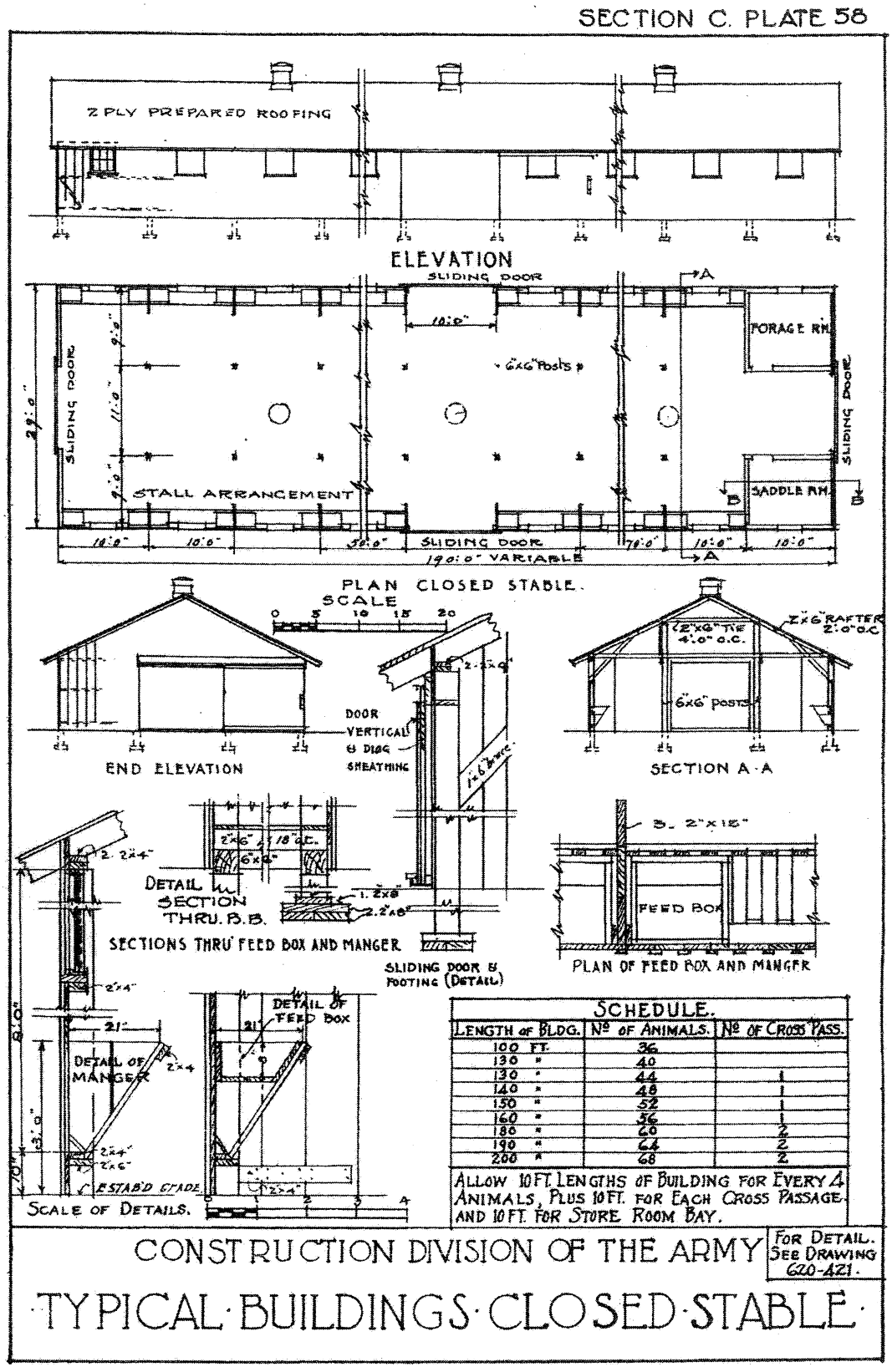


FIGURE D-S.4. "TYPICAL BUILDINGS, CLOSED STABLE." A 1919 STANDARDIZED Q.M.C. PLAN VERY SIMILAR TO FORT HUACHUCA'S CAVALRY STABLES (CONSTRUCTION DIVISION OF THE ARMY 1919:SECTION C PLATE 58).

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.