

Fort Sam Houston National Historic Landmark
San Antonio Depot Water and Watch Tower (Building #40, Quadrangle)
San Antonio
Bexar County
Texas

HABS No. TX-3303-2

HABS
TEX

15-SANT,

39B-

PHOTOGRAPHS

HISTORICAL AND DESCRIPTIVE DATA

ENCLOSURE
FOLIOS

Historic American Buildings Survey
National Architectural and Engineering Record
National Parks Service
Department of the Interior
Washington, D.C. 20240

HISTORIC AMERICAN BUILDINGS SURVEY
FORT SAM HOUSTON NATION HISTORIC LANDMARK

HABS
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15-SANT,
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SAN ANTONIO DEPOT WATER AND WATCH TOWER
(The Quadrangle, Building #40)

HABS No. TX-3303-2

Location: Center of San Antonio Quartermaster Depot (HABS No. TX-3303-1), Grayson Street and New Braunfels Avenue, San Antonio, Bexar County, Texas.

Present Owner and Occupant: United States Army

Present Use: Clock Tower

Significance: This ninety-foot high limestone tower, built in 1876-78, stands at the center of the original Quartermaster Depot, now the Headquarters of the U.S. Fifth Army, and serves as a focal point for the military post of Fort Sam Houston. The tower, originally constructed as a water and watch tower, was the first structure to be completed on Post. It was converted to a clock tower in 1882. The entire Quadrangle, including the tower, was listed on the National Register of Historic Places on July 30, 1974, and was declared a National Historic Landmark the next year.

PART I. HISTORICAL INFORMATION:

A. Physical History:

1. Date of erection: 1876-78
2. Architect: The plans were prepared by Montgomery C. Meigs, Quartermaster General, United States Army. Captain George W. Davis, Superintendent of Construction, modified the plans to suit the location.
3. Original and subsequent owners: U.S. Army from date of construction to the present.
4. Contractor/Builder: Braden and Angus, Contractor, San Antonio, Texas.
5. Original plan and construction: The tower was described in a 1882 city guide book three years after its completion, as follows: "The look-out tower is in the center of the enclosure (Quadrangle); it is constructed of grey limestone, the same as is used in the main buildings, and is fifteen feet square at the base and ninety feet (tall); on top of which is placed a lantern which at night lights up the entire enclosure...there is an iron

tank of 60,400 gallon capacity located at the top of the tower...which is fed by a forty-horse power steam engine and pump in the government pump house". (Gould, Stephen, The Alamo City Guide).

Another source noted that the tower was said to be an accurate copy of a similar work existing somewhere in Europe and regarded as a work of art (Handy, p. 41).

A letter dated September 16, 1876, described the tower walls being built with "Cramps (sic) of iron most carefully secured...built into the walls of the tower every ten feet on each face".

An original carved stone tablet, just below the clock face on the south facade bears the words "In Peace Prepare for War". The roof, now with a bell tower cupola, originally was a pyramidal roof topped with a prominent lightning rod. The structure was built at a cost of \$7,057.

6. Additions and alterations: The most significant alteration was made only four years after the structure was completed, when the water tower was changed to a clock tower and a Seth Thomas clock installed. The roof also has been modified with a bell tower cupola added sometime prior to 1919.

PART II. ARCHITECTURAL INFORMATION

A. General Statement:

1. Architectural character: This 90' tower at the center of the Quadrangle is built of locally-quarried grey limestone, similar to that used for the Quadrangle and the Staff Post residences.

The interior of the structure has a central brick core with a one hundred and three (103) step staircase winding around it. This shaft originally housed the pipe system for the water tank located at the top level of the tower. This upper level was modified to house the present clock mechanism in 1882.

A balconied observation level is at the top of the stairs with the elaborate clock mechanism housed on the level just above. The winding staircase is lighted by small segmental arch window

openings regularly spaced from ground to upper levels. The original roof was modified in the early 1900s. A square center cupola now stands atop the hipped roof, housing the bell which rings on the hour and half hour.

2. Condition of fabric: The condition of the fabric is excellent because it is not heavily used by the military or the general public. Tie rods are visible in the upper level, bracing the roof.

B. Description of Exterior:

1. Over-all dimensions: The tower is a square, 15' x 15'-3", with a 15'-8" square base; reports on height vary from 87' to 90' (original plans call for 90').
2. Foundations: The foundations were constructed of rock and plans show a three level rock base below grade supporting the tower.
3. Wall construction, finish and color: The walls were constructed of gray limestone in coursed ashlar, limestone quoining with dressed margins on all four corners. Both rock-faced blocks and hammered rock surfaces are used.
4. Structural system, framing: The structural system is formed by masonry load-bearing walls which are 2'-6" thick from base to clock level and 2' thick above the clock. Roof is wood frame.
5. Porches, stoops, balconies and bulkheads: Narrow rock ledge balconies below triple-arched French doors on all four sides are supported by four carved cast stone brackets. Balconies are enclosed by simple metal railings and are approximately 60' from ground level.
6. Openings:
 - a. Doorways and doors: Entrance to the tower is provided by one arched doorway to the right of center on the south facade. The heavy arched door has an arched central panel with beaded board running diagonally. The doorway is inset within a dressed stone arch. Sets of triple-arched French double doors on all four sides, 7'-7" high with 8" inset, provide access to the balconies.

- b. Windows: Small two pane (one-over-one-sash) segmental-arch casement windows, inset seven inches from exterior walls, gradually ascend the building in spiraling fashion, providing natural light for the interior stairway.
7. Roof:
- a. Shape, covering: Frame hipped roof is covered with standing seam metal.
 - b. Cornice, eaves: A wide overhang is supported by six carved stone brackets on each side; plain soffit.
 - c. Cupola: A square, frame cupola projects from center of hipped roof with wood slat air vents and metal covered roof.
8. Other features: Prominent, round clock faces on the upper level of the tower are on all four sides. Each clock face is approximately six feet in diameter with frosted translucent glass. Clock is illuminated at night from the interior. Glass clock faces are segmented by narrow metal bars blocking off hour marks.

A finished chiseled stone plaque with the words "In Peace, Prepare for War" on the south facade is centrally located between the clock and balcony levels, set off by a stone projecting belt course of dressed stone above.

C. Description of Interior:

1. Interior plan: As one enters the front south door, a wood frame staircase is located to the right of a center brick shaft which originally housed the pipe system for the water tank located at the top level of the tower. The stair winds around this shaft one hundred and three steps to a balconied observation deck. Three wooden trap doors provide access to this 11' x 11' space from the stairway. A central painted vertical board compartment running from floor to ceiling houses the clock weights for the clock mechanism now occupying the upper level of the tower. The clock replaced the water tank in 1882.

The upper level is accessible through a small 3'-2" x 2'-4" trap door reached by an aluminum ladder in the northwest corner of the observation area. This level is used solely for the clock

and bell operation. A frosted glass clock face with metal spandrels is set into each of four walls with infill rock and brick surrounded by a single interior soldier row bond. A center vertical board cabinet encases the clock mechanism. The cabinet is approximately 5'-6" high with six-pane glass double doors. The 13' x 13' floor area at this level seems to indicate that the exterior walls taper at the top of the tower, resulting in a greater floor space than that immediately below.

2. Stairway: A wood frame open string staircase rises 103 steps from ground level to the lower observation deck. The staircase appears to be original for the most part -- plans called for 7-1/2" risers and 10" treads.
 3. Flooring: Four inch tongue-and-groove wood flooring on upper and lower floor spaces.
 4. Wall and ceiling finish: Exposed limestone walls with some touch-up cement patching; some patch brickwork is visible on the upper clock level, probably done when the water tower was converted to a clock tower.
 5. Openings:
 - a. Doorways and doors: Vertical board trap-door openings on both lower and upper levels.
 - b. Windows: Casement windows on the staircase are inset approximately two feet from the interior walls.
 6. Mechanical equipment:
 - a. Heating: The tower is not heated.
 - b. Lighting: Incandescent lights.
 - c. Other mechanical equipment: The massive four-faced clock was built by the Seth Thomas Company, and was installed in 1882. A bell in the cupola is connected to the clock mechanism, and rings on the hour and half-hour.
- D. Site:
1. General setting and orientation: Located at the center of the Quadrangle courtyard. The courtyard has been landscaped in an

informal manner, and wildlife roams freely. Wildlife includes deer, rabbits, peacocks, ducks, and guinea hens. The "Quadrangle Oak", selected as the second most historical in Bexar County in a Bicentennial competition, stands in the southeast corner.

PART III. SOURCES OF INFORMATION

A. Original Architectural Drawings:

Plans for water and watchtower from report of the Quartermaster General, 1876. National Archives and Record Service, Washington, D.C.

B. Old Views:

Miscellaneous Forts Files, Record Group #77, Center for Cartographic and Architectural Archives, National Archives and Records Services, Washington, D.C.; The Fort Sam Houston Historical Museum, Building #123, Fort Sam Houston, San Antonio, Texas.

C. Bibliography:

1. Primary and unpublished sources:

"Records of the Office of the Quartermaster General Consolidated Correspondence", file 1794-1915, microfilmed correspondence relating to Fort Sam Houston held at the National Archives of the U.S., letter dated September 16, 1876.

Real Property Records, Directorate of Facilities Engineering, Fort Sam Houston, San Antonio, Texas.

2. Secondary and published sources:

Gould, Stephen, The Alamo City Guide, San Antonio, Texas: Being a Historical Sketch of the Ancient City of The Alamo and Business Review, New York: McGowan and Slipper, 1882.

Handy, Mary Olivia, A History of Fort Sam Houston, San Antonio, Naylor Inc., 1951.

Steinfeldt, Cecilia, San Antonio Was, San Antonio Museum Association, 1978.

3. Likely sources not yet investigated:

Correspondence and other miscellaneous files relating to Fort Sam Houston, San Antonio, Texas National Archives and Records Service, Washington, D.C.

PART IV. PROJECT INFORMATION

The detailed survey of eighteen (18) architecturally representative structures, and a group of streetscapes, at Fort Sam Houston, San Antonio, Texas, was undertaken in 1980 by the National Architectural and Engineering Record (NAER) after a comprehensive inventory of the Post was conducted. Funding for the project was made possible through the cooperative efforts of the Department of the Army, Fort Sam Houston, and the San Antonio Conservation Society.

This project was under the general supervision of Kenneth Anderson, Acting Chief of the Historic American Buildings Survey of the National Architectural and Engineering Record. Sally Tompkins of the NAER staff was project supervisor. Project Historian was Kathryn A. Burns, San Antonio, Texas. Photographic records were provided by David Kaminsky, Roswell, New Mexico.

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**ADDENDUM TO
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National Park Service
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