

Fort Sheridan Water Tower  
(Building No. 49)  
Leonard Wood Avenue  
Fort Sheridan  
Lake County  
Illinois

HABS No. IL-1113-18

HABS  
ILL,  
49-FTSH,  
1/18-

PHOTOGRAPHS

HISTORICAL AND DESCRIPTIVE DATA

Historic American Buildings Survey  
Heritage Conservation and Recreation Service  
Department of the Interior  
Washington, D.C. 20243

## FORT SHERIDAN, WATER TOWER (Building No. 49)

## FORT SHERIDAN HISTORIC DISTRICT

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ILL,  
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Location: On Leonard Wood Avenue, south of the parade grounds. The Water Tower is flanked by two Barracks, (Buildings No. 48 and 50). Fort Sheridan, Lake County, Illinois.

USGS Highland Park Quadrangle, Universal Transverse Mercator Coordinates: 16. 433000. 4673910.

Present Owner  
and Occupant: United States Army.

Present Use: Water Tower.

Significance: The Water Tower is an impressive stone and brick structure, 167 feet high, which serves as a focal point for Fort Sheridan and the surrounding area. Its excellent design and construction are of interest in the study of building technology of the late 19th century. It was designed by the Chicago architectural firm of Holabird and Roche. In 1974 it was placed on the National Register of Historic Places.

PART I. HISTORICAL INFORMATION

## A. Physical History:

1. Date of erection: Begun in 1889, completed in 1891.
2. Architect: Holabird and Roche, Chicago.
3. Original and subsequent owners: U.S. Army from date of construction to the present.
4. Contractor: Williams and Co. Completed by Hughes and Co.
5. Original plan and construction: The Tower as constructed was 228 feet high with a steeply pitched pyramidal roof which rose above colonettes spanning an opening at the top level of the Tower. The Tower was planned as eight floors from ground to peak. The fourth floor, however, was never constructed, and the floors go from the third to the fifth. A sally port 15 feet wide allowed Sheridan Road, a major artery at the time of the Tower's construction, to pass through the building. The Tower is the central element of a 1000 foot long complex composed of the Tower itself flanked by

two long brick buildings designed as barracks. Built to house a water tank with a 90,000 gallon capacity, and as the major focal point of the fort, the Water Tower continues to serve both purposes today.

6. Alterations and additions: In 1928 the ground level of the Tower was modified for use as a telephone exchange. A wood, single-story structure projected out of the sally port on the south side. This was later removed. In 1932 a hazard light was installed on the top of the Tower. A structural weakness prompted major modification in 1940. A 92' section at the top was removed and replaced with a new section 31'-7" high with a low pitched octagonal roof. The new top was designed by Sigmund Ablum, the Post Engineer. The contractor was Gerhardt and Meyne Co. of Chicago, Illinois. The rebuilt section included ornamental stone caps at the corners, a carved ornamental stone cornice, steel trusses, and a copper ribbed roof. The wood stairway was replaced with a steel one. In 1978 the firm of Holabird and Root, the successor of the architectural firm of Holabird and Roche, <sup>was</sup> ~~were~~ contracted to oversee needed repair work. The bricks and stones were tuckpointed and the wooden window frames replaced with bronze aluminum ones. Steel doors were installed. A large stone over the north entrance to the sally port was replaced.

B. Sources of Information:

1. Original architectural drawings:

Directorate of Facilities Engineering, Fort Sheridan, Illinois.  
Plans and elevations, n.d.

Holabird and Root, 300 West Adams St., Chicago, Illinois. 60606.  
Plans, elevations, sections, details and sketches, n.d.  
Drawings are water damaged.

2. Old views:

Jenkins, Charles E., "Holabird and Roche."  
Architectural Reviewer, June, 1897. pp. 17-18.

Mackern, H. G. Fort Sheridan: At Attention and Rest, Chicago,  
H. G. Mackern, 1897. n.p.

Views of Fort Sheridan, ca. 1897, Record Group 92, Audio Visual  
Archives, National Archives and Records Service, Washington, D.C.

3. Bibliography:

Papers Relating to Fort Sheridan. Office of the Quartermaster General Consolidated Correspondence Files, 1784-1915 and Office of the Quartermaster General, Construction Division, Record Group 92. National Archives and Records Service, Washington, D.C.

Real Property Records, Directorate of Facilities Engineering, Fort Sheridan, Illinois.

Prepared by Sally Kress Tompkins  
Architectural Historian  
Historic American  
Buildings Survey

PART II. ARCHITECTURAL INFORMATION

A. General Statement:

1. Architectural character: Different textured construction materials at different levels define the building horizontally. Single, slotted windows at each level and corner turrets which taper inward as the Tower rises enhance the structure's verticality. The Tower's massive stone arched opening at its base is in keeping with the Richardsonian Romanesque character of other Holabird and Roche designed buildings at Fort Sheridan. The shortening of the Tower by 61' and the replacement of the original steeply pitched roof with a roof having a gradual pitch has resulted in a less impressive building.
2. Condition of fabric: Excellent.

B. Description of Exterior:

1. Over-all dimensions: The building has an almost square base (39'-3" by 39'-6") with rounded turrets at each corner. The Tower rises to a height of 167'.
2. Foundations: Concrete with steel plates.
3. Wall construction, finish and color: The walls of the Tower are divided into four horizontal stages.

The first stage, the base, is constructed of regular ashlar limestone which is rock-faced. A segmentally arched sally port has radiating voissoirs, the central three of which are higher than the others suggesting a large keystone. The ceiling of the sally port has groined vaulting of pressed brick with a ribbing of carved stone. The floral motif carved on the stone is similar to that on the Post Commandant's Quarters, (Building No. 9). Wide archways within the sally port formed by six rowlocks set off recessed areas which may have allowed officers and visiting dignitaries to stand out of the roadway while carriages for them to board entered the sally port.

The second stage immediately above the arched entrance is constructed of hammer dressed ashlar limestone and curves inward on all four sides. At this level the corner turrets which run up the sides of the Tower to the uppermost section begin. Above the sally port on the north and south are three slotted windows.

The third stage is the longest, and rises to the superstructure of the roof. It is constructed of brick laid in common bond with four rows of stretchers to one of headers. The turrets terminate at the top of this stage with stone caps.

The fourth and uppermost stage is directly below the roof and is set back from the walls below. This stage was rebuilt in 1940 and is constructed of brick that is slightly darker than that on the rest of the building. It is octagonal in section. Bands of projecting brick-on-edge encircle the building above and between the arched openings which occur on each side.

4. Structural system, framing: Brick bearing wall. The walls at the first and second levels are approximately 5'-5" thick. They decrease as the building rises, and at the seventh level they are 4'-6" thick. The roof has steel trusses.
5. Openings:
  - a. Doorways and doors: Access to the second level of the Tower above the sally port is through Building No. 50. A steel door provides access into a small addition covering the recessed area in the west side of the sally port.
  - b. Windows: Six vertical bands of windows pierce the building, one band on each side and two on the southeast turret. Those in the turret light the stairway within. The windows on the Tower itself are recessed in the wall becoming closer to the

exterior wall surface as the Tower narrows at the top. The windows on the three lower levels have flat gauged brick arches. The four windows on the upper levels are recessed within a narrow panel

Groupings of three narrow arched windows pierce the second stage of the Tower above the sally port on the north and south sides.

In the uppermost section directly below the roof, groupings of three windows pierce four sides of the eight sided structure. The windows have rounded, gauged brick arches resting on a stone impost which continues to encircle the building between the groupings of windows. On the alternate sides which have no windows the stone band is broken by a stone panel carved with foliated forms which also serves as the termination of the stone caps on top of the turrets. The stone sills of the windows are extended, forming a continuous band around the Tower. Each window has a total of fifteen lights. The lower section, containing six lights opens by swinging outward. The tympanum is glazed.

The window frames throughout the Tower have all been replaced. They are presently of bronze aluminum.

A window within the recessed area in the east wall of the sally port has been infilled with pink-red brick.

6. Roof:
  - a. Shape, covering: The roof is octagonal and is covered with seamed copper.
  - b. Cornice, eaves: A row of projecting, gauged brick arches with stone imposts carved with foliated forms encircles the Tower below a plain copper cornice.
  - c. Turrets: Turrets projecting at all four corners run from above the sally port to the section immediately below the roof. Stone caps project above the turrets and extend inward along the sides of the Tower terminating with carved stone panels that intersect with the stone band which connects the imposts of the arched windows.
7. Other features: Four rounded stone wheel blocks project from the sally port, one on each side of the two entrances.

A bronze plaque on the Tower reads: "The Water Tower was designed by the architectural firm of Holabird and Roche and is a classic example of military architecture. It was built in 1891 and was placed on the National Register of Historic Places by the United States Department of Interior on 4 December 1974."

C. Description of the Interior:

1. Floor plans: The Tower has eight levels although the floor on the fourth level was never constructed.

The first level of the Tower through which the sally port passes does not provide access into the Tower. A ground level door in the connecting wing on the east opens onto a stairway which leads up to a door into the Tower at the second level.

The second, third, fifth, sixth, seventh, and eighth floors are single, square rooms with rounded turrets at the corners. The stairway is in the southeast turret. The floor space gradually decreases toward the top, the second level being 17' across and the eighth level, 15'. The sixth floor contains the water tank with a narrow passageway providing access around it. The seventh and eighth levels are above the tank.

2. Stairways: The stairway located in the southeast turret goes from the second to the seventh level. The original wood stairs were replaced by a circular steel stairway in 1940. Each tread carries the name of the manufacturer: "O.W. Owens. Builder." On the seventh level a steel ladder-type stairway goes up to a trap door into the eighth level.
3. Flooring: The floor on the second level is covered with a form of composition tile. The third level floor is constructed of wood boards measuring 2-1/4" across. The fifth, sixth, seventh and eighth level floors are concrete.
4. Wall and ceiling finish: The walls on all levels are brick. The brick is painted an off white color on the second level and left unpainted on the remaining levels. The walls of the third level have a projecting brick edge approximately half way up the wall, which would have assisted in the support of the fourth floor.

The ceiling on the second level is covered with acoustical tile. The third, fifth and sixth levels have barrel vaulted, brick ceilings reinforced with steel beams. The steel reinforcing beams on the fifth level are much heavier than the others in order to support the water tank immediately above. The seventh level ceiling is wood reinforced with concrete beams. The eighth level ceiling is unfinished showing the wood roof sheathing and steel trusses which were put in place in 1940.

5. Openings:

- a. Doorways and doors: The door into the second level of the Tower from the connecting wing is steel. Steel doors also provide access to the stairway in the southeast turret on the second to the seventh levels. The original doorways into the southeast turret had segmental arched, brick lintels formed by double rowlocks which are still visible above the present stone lintel.

A double steel trap door in the ceiling leads from the seventh to the eighth level.

- b. Windows: Above the sally port, on the second level, there are groupings of three arched windows on the north and the south side.

On the third floor there is one window on each side at the lower level and one window on each side at the upper level. On the fifth level there is one window on each side. On the sixth level there are three windows, one above the other, on each side. On the seventh level there is one window on each side. On the eighth and final level, groupings of three arched windows pierce four of the eight sides.

6. Mechanical systems: The Tower is presently heated by the central heating plant which is fueled by gas. It has electricity and indoor plumbing. Special electrical wiring allows the Tower to be covered with lights at Christmas time.
7. Notable original fixtures: Three large pipes leading to the water tank run up the east wall and are visible on the second, third and fifth levels. The riveted steel water tank on the sixth level holds 90,000 gallons of water and has provided water to the post from its completion in 1891 to the present. A steel ladder runs up the side of the tank.

D. Site:

The Water Tower is a central feature of a complex that includes two long, two-and-one-half story buildings constructed as barracks (Buildings No. 48 and 50). It is south of the parade grounds opposite the Officers' Open Mess (Building No. 31), which is north of the parade ground. Leonard Wood Avenue passes the Tower on the north. It is the highest structure on the original post.

Prepared by Sally Kress Tompkins  
Architectural Historian  
Historic American  
Buildings Survey  
June 1979

PART III. PROJECT INFORMATION

This project was undertaken by the Historic American Buildings Survey (HABS) under the auspices of Interagency Archeological Services, Atlanta and funded by the U.S. Department of Army, Fort Sheridan, Illinois. It included a historical and architectural survey of the fort to provide the necessary data for implementation of the Fort Sheridan Historic District. Documentation was obtained on thirty-one buildings. The survey and documentation were accomplished by Sally Kress Tompkins, an architectural historian on the HABS staff, under the direction of John Poppeliers, Chief of HABS; Kenneth Anderson, Principal Architect; Carolyn Pitts, Principal Historian, and Allen Chambers, architectural historian and editor. The photographs were taken by William Kumpf of Architectural Camera, Chicago.

ADDENDUM TO  
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Fort Sheridan Historic District  
Leonard Wood Avenue  
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HISTORIC AMERICAN BUILDINGS SURVEY  
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U.S. Department of the Interior  
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