United States Department of the Interior
National Park Service

National Register Listed
October 6, 2011

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in National Register Bulletin, *How to Complete the National Register of Historic Places Registration Form.* If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. **Place additional certification comments, entries, and narrative items on continuation sheets if needed (NPS Form 10-900a).**

1. Name of Property

historic name **1927 Hillsboro Water Tower**

other names/site number 115-851

2. Location

street & number **Lots 10 & 11, Block 2, Hill's Second Addition** ☐ not for publication

city or town **Hillsboro** ☐ vicinity

state **Kansas** code **KS** county **Marion** code **115** zip code **67063**

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended,

I hereby certify that this **x** nomination ___ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60.

In my opinion, the property x meets ___ does not meet the National Register Criteria. I recommend that this property be considered significant at the following level(s) of significance:

___ national ___ statewide X local

SEE FILE
Signature of certifying official — Date

Title — State or Federal agency/bureau or Tribal Government

In my opinion, the property ___ meets ___ does not meet the National Register criteria.

Signature of commenting official — Date

Title — State or Federal agency/bureau or Tribal Government

4. National Park Service Certification

I, hereby, certify that this property is:

___ entered in the National Register
___ determined eligible for the National Register
___ determined not eligible for the National Register
___ removed from the National Register
___ other (explain:) _____

Signature of the Keeper — Date of Action

5. Classification

Ownership of Property
(Check as many boxes as apply)

- [ ] private
- [X] public - Local
- [ ] public - State
- [ ] public - Federal

Category of Property
(Check only **one** box)

- [ ] building(s)
- [ ] district
- [ ] site
- [X] structure
- [ ] object

Number of Resources within Property
(Do not include previously listed resources in the count.)

Contributing	Noncontributing	
1		buildings
		district
		site
1		structure
2		object
4		**Total**

Name of related multiple property listing
(Enter "N/A" if property is not part of a multiple property listing)

N/A

Number of contributing resources previously listed in the National Register

0

6. Function or Use

Historic Functions
(Enter categories from instructions)

GOVERNMENT: Public Works

Current Functions
(Enter categories from instructions)

GOVERNMENT: Public Works

7. Description

Architectural Classification
(Enter categories from instructions)

No Style

Materials
(Enter categories from instructions)

foundation: **Metal: Steel**

walls: **Metal: Steel**
Wood (Pumping Station)

roof:

other:

Narrative Description

(Describe the historic and current physical appearance of the property. Explain contributing and noncontributing resources if necessary. Begin with **a summary paragraph** that briefly describes the general characteristics of the property, such as its location, setting, size, and significant features.)

Summary Paragraph

The 1927 Hillsboro Water Tower is a steel tin-can type water tower in Hillsboro, Kansas. The structure is located in a historically industrial area immediately south of the Hillsboro Cooperative Grain Elevator and Santa Fe Railroad tracks, one block west of the commercial business district. The nominated property includes four related resources, all contributing, within the fenced-in area surrounding the base of the water tower. In addition to the water tower (structure), there is a wood shingled pump-house (building), pipe railing around the tower's central water pipe (object), and a concrete slab with metal grate well cover (object).

Narrative Description

1. Water Tower (Structure, Contributing)

The 1927 Hillsboro Water Tower is an elevated steel water tower. The structure consists of a riveted steel-plate tank elevated on four steel-truss supports tied together with crisscrossing steel tension rods and two sets of horizontal steel rods. The tower is 130' tall. The tank, which is cylindrical with a conical roof and hemispherical bottom, is 35' in height and 20' in diameter. The steel-truss reports meet the tank where the tank's hemispherical bottom meets its cylinder. There is a narrow steel platform with railing at this location. The conical roof, which is copper green, has a finial at its top. A pipe, protected by pipe railing at the base (see below), extends from the ground to the center of the tanks hemispherical bottom. There are two steel ladders attached to the north side of the steel tank: one that rises vertically from the base of the cylinder to a place where it pierces the conical roof; and a second that rises roughly from the top of this ladder, at the base of the roof, to the finial at the top. A simple industrial light, attached to a pole extending from the top of the conical roof, lights the top of the tower. A telecommunications antenna, which is mounted to the ladder on the cylinder, projects from the north side of the tower.

2. Pump house (Building, Contributing)

The pump house, located on the northeast corner of the nominated property, is a small wood-framed structure (approximately 8' square) with cubed massing and asphalt-clad shed roof. The building is setting up on concrete blocks. The exterior is clad with shingles. There is a two-panel wood door on the west end of the south/front elevation. There is a projecting vent unit on the east end of the south elevation. There is a louver on the south end of the east elevation. There is a second louver on the north elevation. Although the 1937 Sanborn Map does not show a building at this location, the size and shape of this structure is consistent with a shed located south of the water tower at that time. The materials and finishes are consistent with the construction period of the water tower. In addition, county records indicate that it was built the same year as the water tower. Therefore, this building is identified as a contributing resource.

3. Well Cover (Object, Contributing)

The well cover, which is northwest of the pump house, is a steel cover surrounded by a concrete slab. This feature dates to the period of significance and is, therefore, classified as a contributing resource.

4. Pipe Railing (Object, Contributing)

A very simple steel pipe railing protects the base of the pipe that supplies water to the tower. It consists of four posts rising from the ground connected by a pipe railing a few feet above the ground. This feature dates to the period of significance and is, therefore, classified as a contributing resource.

8. Statement of Significance

Applicable National Register Criteria
(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing)

- [x] A Property is associated with events that have made a significant contribution to the broad patterns of our history.
- [ ] B Property is associated with the lives of persons significant in our past.
- [ ] C Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- [ ] D Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations
(Mark "x" in all the boxes that apply)

Property is:

- [ ] A Owned by a religious institution or used for religious purposes.
- [ ] B removed from its original location.
- [ ] C a birthplace or grave.
- [ ] D a cemetery.
- [ ] E a reconstructed building, object, or structure.
- [ ] F a commemorative property.
- [ ] G less than 50 years old or achieving significance within the past 50 years.

Areas of Significance
(Enter categories from instructions)

COMMUNITY PLANNING AND DEVELOPMENT

Period of Significance

1927-1961

Significant Dates

1927

Significant Person
(Complete only if Criterion B is marked above)

N/A

Cultural Affiliation

N/A

Architect/Builder

Pittsburgh-Des Moines Steel Company

Period of Significance (justification)

The period of significance for the 1927 Hillsboro Water Tower stretches from its construction in 1927 until 1961. Boosted by a second water tower, constructed in 1981, the 1927 tower continues to serve its original function of providing water to the community of Hillsboro.

Criteria Considerations (explanation, if necessary)

N/A

Statement of Significance

Summary Paragraph (provide a summary paragraph that includes level of significance and applicable criteria)

The 1927 Hillsboro Water Tower is being nominated for local significance under Criterion A in the Area of Community Planning and Development for its association with the growth and development of Hillsboro, Kansas. The steel-plated elevator water tower with hemispherical bottom was constructed in 1927 as part of the city's first municipal water and sewer system.

Narrative Statement of Significance

A Brief History of Hillsboro

The founding of Hillsboro in 1879 coincided with the construction of the Marion and McPherson Railway, a subsidiary of the Santa Fe. The new city was platted by Scottish immigrant and Kansas pioneer John G. Hill. Hill, who settled in Marion County in 1871, was instrumental in securing the bonds to lure the new rail line.[1]

Early Anglo settlers benefitted greatly from the construction of the railroad – both directly, through construction contracts, and indirectly, through the consolidation of local trade. John Dole, who arrived in Marion County in 1871, received the contract to grade the roadbed. By 1880, he was employed as a grain dealer, a business only made possible by Mennonite cash farmers and the transportation network that shipped their crops east. John Hill's brother-in-law Alexander McDonald, who helped promote the new rail line, was a successful Hillsboro merchant by 1880. And Hill himself, described as a "shrewd and practical Scotsman," reaped the rewards of early arrival by purchasing cheap farmland in the rail line's path, platting a new trade center in what would become the heart of Kansas wheat country.[2]

Hillsboro provided a convenient market for the region's growing number of Mennonite farmers, among the 15,000 German-Russian Mennonites who came to Kansas between 1873 and 1883 following a massive colonization effort by Santa Fe recruiter Carl B. Schmidt. Early on, the Mennonites settled in small villages near present-day Hillsboro. Among the Mennonite settlements eventually eclipsed by Hillsboro were Bruderthal, Johannestal, Ebenfeld, and Gnadenau (est. 1874).[3]

Over time, businessmen from the area's Mennonite villages moved to the new rail town. The city's business district got its start in August 1879 when Thomas Holcomb moved his successful general store from Gnadenau, where it was destroyed in a windstorm, to Hillsboro. Jacob J. Friesen, who had built a mill in Gnadenau with his father, moved to Hillsboro to deal grain and coal. Blacksmith Gerhard Cornelson moved to Hillsboro in 1881. Hillsboro was home to 133 citizens in 1880. By April 1881, the bustling town boasted "Four dry goods and grocery stores, five hardware stores, two drug stores, two lumber yards, three grain elevators, four notary publics, one land and loan office, two blacksmith shops, two livery stables, one bank, a postmaster, two hotels, two physicians and one tinner."[4]

The population of Hillsboro continued to grow through the early twentieth century. In 1900, there were 1530 people in Risley Township. By 1920, the population had reached 2086. Among the notable Hillsboro institutions founded in the early twentieth century was Tabor College, established by the Mennonite Brethren Conference in 1908. By the end of its first year, the college boasted 104 students. After the college's original building was destroyed by fire in 1918, it quickly recovered with the construction of a new administration building and women's dormitory in 1920.[5] The college, whose student population now hovers at 500, has played a significant role in the community's growth and development.

A great number of Progressive-Era improvements were made in Hillsboro during the first three decades of the twentieth century, particularly during and immediately following World War I, when area farmers and the Hillsboro merchants who supplied them reaped the rewards of record-high crop prices. In 1912, a bond issue was passed to finance the city's construction of an electric power plant. The same year, the city commissioned the construction of a new city hall. In 1918,

[1] John G. Hill's wife Catherine was known as the city's first prohibitionist.
[2] Raymond F. Wiebe, *Hillsboro, City on the Prairie* (Multi Business Press; 1985), 37-39.
[3] All of these early settlements were gone by 1910.
[4] Sondra Van Meter, *Marion County, Kansas: Past and Present* (Hillsboro, Kansas: MB Publishing House, 1972), 179.
[5] Wiebe, 69-76.

the Salem Hospital, founded by Mennonite Brethren in 1890, built a new building. During these years, many of the wood-framed commercial buildings in downtown were replaced with fireproof concrete and brick structures, like the Mennonite Brethren Publishing House, completed in 1915. The city embarked on its first effort to pave and gutter its streets in 1921. These improvements culminated with the city's new water and sewage system, constructed in 1927.[6]

The war-time home front was unique in Hillsboro, where many citizens' religious beliefs kept them from military active duty. Conscientious objectors were assigned non-combatant roles or served in the Civilian Public Service.

Although the populations of many rural communities have declined in the twentieth century, Hillsboro's population has grown. Between 1930 and 1960, the population rose from 1458 to 2441. The current population is 2993. In addition to the college, the local economy continues to center on agriculture-related businesses and industries.

Fire and Water: The History of Hillsboro's Water System

In order to fully appreciate the historical significance of the construction of the 1927 Hillsboro Water Tower, it is important to understand how the lack of a municipal water system affected daily life. Before the development of public water systems, each household was required to provide its own water for cooking, cleaning and washing. Most households relied on cisterns, which caught and stored rainwater. By the 1910s, some homeowners had installed gravity-fed indoor water systems, which involved pumping water from the cistern to an upper-story copper tank that supplied the house.

Without a municipal water system, the town's growing numbers of buildings were at the mercy of devastating fires. Although the vernacular building material in the area was sod, most of Hillsboro's buildings were built from lumber shipped on the railroad. Until the 1930s, when natural gas was first widely distributed, the only available fuel was fire from wood or coal. And vehicles were fueled by horses, which were fueled by highly flammable hay. One of the few ways to combat fire was by the installation of lightening rods. Unfortunately, these devices were not widely used in this devout community where they were viewed as a "lack of faith in the providence of God."[7] Ten horses were killed when fire destroyed one of the city's large livery stables in 1908 or 1910. In the 1910s alone, fire destroyed Peter Jost's blacksmith shop, Peter Dalke's carriage manufacturing shop and J. F. Banman's jewelry and music store. And Tabor College's first building, which was built in 1908, was destroyed by fire in 1918.[8] Even the town's most prominent citizens were not immune to the flames' havoc. In 1902, banker John G. Fast's mansion burned to the ground. Town founder and Mayor John G. Hill's coal sheds were destroyed in 1900.

Even those whose religious beliefs caused them to shun lightening rods and other fire-prevention measures did not resist fighting them once they were sparked. But this was a difficult prospect in pre-1920s Hillsboro. The first efforts toward a municipal fire protection system came in 1888, when the city purchased a man-powered water pump. This $700 implement, which consisted of a tank, pump and hose mounted on a two-wheeled wagon, required eight to ten volunteers to operate it. In an 1897 fire that threatened John G. Hill's Badger Lumber Company, the apparatus proved no better than a bucket brigade. This equipment was used until 1900, when at the apparent urging of Mayor Hill, who had just lost his coal sheds to fire, the city purchased new equipment.

In 1912, the year the city established its first fire department, the city's "water system" consisted of wells and cisterns with a capacity of 11,000 gallons. Fire protection and water service downtown consisted of an octagonal well/bandstand at the intersection of Grand and Main Streets with a cistern in the middle of the street to the north. A hand-rung bell was the only way to summon the city's twelve volunteer fire fighters.[9] The situation had improved somewhat by 1922, when the town had a paid fire chief and a Ford fire truck. But the firemen still relied on an archaic system of wells and cisterns. The public well was then connected to three water cisterns – to the north, south and west – by a 2" pipe.[10]

Without adequate water pressure, all the equipment and firemen in the world proved futile against the inevitable infernos – and a dependably clean water supply would have been impossible. The necessary pressure required the gravitational force only possible through the construction of elevated water tanks and plumbing. The project would require that the city issue bonds. Hillsboro's citizens voted in favor of the bond issue in 1926 and the water project was completed in 1927.[11]

[6] Wiebe, 134.
[7] Wiebe, 81.
[8] Wiebe, 72. One could speculate that the fire's occurrence during World War I, when many Mennonites were conscientious objectors, may not have been accidental.
[9] 1912 Sanborn Map.
[10] 1922 Sanborn Map.
[11] No newspaper accounts of the bond election and construction have been found.

To manufacture the new water tower, the City of Hillsboro contracted with the Pittsburgh-Des Moines Steel Company (PDM). One of two firms manufacturing steel water towers in the early twentieth century, PDM, then known as Des Moines Bridge and Iron Company, manufactured its first elevated steel water tower in Scranton, Iowa in 1897. The company had Kansas contracts by 1911, when it manufactured a 50,000 gallon tank for the City of Coldwater.[12] The business expanded after 1914, when, "to correct the erroneous impression that [its] business operations [were] confined to the immediate vicinity of our Des Moines plant," the firm changed its name to the Pittsburg-Des Moines Steel Company.[13] Through the years, PDM's tin-can-type water towers have earned a place in American pop culture. A 1935 model in Manor, Texas was featured in the 1993 film *What's Eating Gilbert Grape*.[14] Today, the company is perhaps better known for its role in the manufacture of more complex steel structures, which included various suspension bridges, the fork-shaped steel beams for the World Trade Center, and the St. Louis Arch (Jefferson National Expansion Memorial). PDM is now owned by its historic competitor, Chicago Bridge and Iron Works (CB and I).[15]

The Hillsboro Water Tower, which held 75,000 gallons of water, was supplied by a system of wells and pumps. Three American Well Works well plunger pumps pumped water from three wells (93', 94' and 97' deep) into an 800,000-gallon reservoir. Two additional pumps, American Well Works centrifugal pumps, pumped water from the reservoir into the water tower. The new water system produced a domestic water pressure of 52 psi and a fire-hose water pressure of 85 psi.[16]

The 1927 steel-plated water tower served as Hillsboro's only water tower until a second one was built in 1981. In 1985, after the second tower was completed, the east side of the steel water tower was repaired by Midwest Tank Touch Up. The steel water tower receives regular maintenance every three years. The 1927 Hillsboro Water Tower is significant for its role in Hillsboro's first municipal water system.

9. Major Bibliographical References

Bibliography

Blackmar, Frank., ed. *Kansas: a cyclopedia of state history, embracing events, institutions, industries, counties, cities, towns, prominent persons, etc.* Chicago: Standard Pub. Co., 1912.

Chicago Bridge and Iron Works. *Water Towers*. Chicago, Illinois: 1912.

Connelley, William E. *A Standard History of Kansas and Kansans*. Chicago: Lewis Publishing Company, 1918.

Cutler, William. *History of the State of Kansas.* Chicago: A. T. Andreas, 1883.

Ford, Susan. *Highland Water Tower National Register Nomination*. Kansas Historical Society, 2007.

Foster, Jim. *Towering Over America: An Illustrated History of Pitt-Des Moines, Inc.* Pitt-Des Moines, Inc.: 1992.

Kansas State Census.

Meier, Steve. *Steel Water Storage Tanks: Design, Construction, Maintenance, and Repair.* McGraw-Hill, 2010.

Robinson, Neva M. *Florence Water Tower National Register Nomination.* Kansas Historical Society, 2009.

Sanborn Maps.

Shortridge, James R. *Peopling the Plains: Who Settled Where in Frontier Kansas.* Lawrence: University Press of Kansas, 1995.

[12] Evelyn Reed, *Coldwater Centennial Notebook*, online at http://www.rootsweb.ancestry.com/~kscomanc/centennial.html.
[13] *Water and Sewage Works* Volumes 46-47, (Indianapolis: Engineering Publishing Company, 1914), 72.
[14] An unsupervised boy played by Leonardo DiCaprio scaled the water tower in the movie.
[15] Jim Foster, *Towering Over America: An Illustrated History of Pitt-Des Moines, Inc.* (Pitt-Des Moines, Inc.: 1992). PDM was later bought by its competitor Chicago Bridge and Iron Works (now known as C B and I). CB and I has a history of the company on its website at http://www.cbi.com/about-cbi/history/.
[16] 1937 Sanborn Map.

Van Meter, Sondra. *Marion County, Kansas: Past and Present*. Hillsboro, Kansas: MB Publishing House, 1972.

Wiebe, Raymond F. *Hillsboro, City on the Prairie*. Multi Business Press, 1985.

Previous documentation on file (NPS):

____ preliminary determination of individual listing (36 CFR 67 has been Requested)
____ previously listed in the National Register
____ previously determined eligible by the National Register
____ designated a National Historic Landmark
____ recorded by Historic American Buildings Survey #_____
____ recorded by Historic American Engineering Record # _____

Primary location of additional data:

__x__ State Historic Preservation Office
____ Other State agency
____ Federal agency
____ Local government
____ University
____ Other
Name of repository: **Kansas Historical Society**

Historic Resources Survey Number (if assigned): _____

10. Geographical Data

Acreage of Property **Less than 1 acre**
(Do not include previously listed resource acreage)

UTM References
(Place additional UTM references on a continuation sheet)

	Zone	Easting	Northing		Zone	Easting	Northing
1	**14**	**656700**	**4246420**	3			
2				4			

Verbal Boundary Description (describe the boundaries of the property)

The nominated property occupies Lots 10 & 11, Block 2, Hill's Second Addition in Hillsboro, Kansas.

Boundary Justification (explain why the boundaries were selected)

The above is the legal description for the parcel on which the water tower sits.

11. Form Prepared By

name/title **Christy Davis**
organization **Davis Preservation** date **5/3/2011**
street & number **909 ½ Kansas Ave, Suite 7** telephone **785-234-5053**
city or town **Topeka** state **Kansas** zip code **66612**
e-mail **cdavis@davispreservation.com**

Additional Documentation

Submit the following items with the completed form:

- **Maps:** A **USGS map** (7.5 or 15 minute series) indicating the property's location.

  A **Sketch map** for historic districts and properties having large acreage or numerous resources. Key all photographs to this map.

- **Continuation Sheets**

- **Additional items:** (Check with the SHPO or FPO for any additional items)

Photographs:

Submit clear and descriptive photographs. The size of each image must be 1600x1200 pixels at 300 ppi (pixels per inch) or larger. Key all photographs to the sketch map.

Name of Property: **1927 Hillsboro Water Tower**
City or Vicinity: **Hillsboro**
County/State: **Marion County, Kansas**
Photographer: **Christy Davis**

Description of Photograph(s) and number:

1 of 7 Overall view of riveted steel tank with hemispherical bottom.
2 of 7 Overall view, looking north toward Coop Grain Elevator.
3 of 7 Overall view, looking northeast.
4 of 7 Looking up toward bottom of tank.
5 of 7 Close-up of steel supports.
6 of 7 Pump house, looking northwest.
7 of 7 Pump house, well cover, pipe railing, looking southeast.

Property Owner:

(complete this item at the request of the SHPO or FPO)

name **City of Hillsboro (Larry Paine, City Manager)**

street & number **118 E. Grand, PO Box 125** telephone **620-947-3162**

city or town **Hillsboro** state **KS** zip code **67063**

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C.460 et seq.).
Estimated Burden Statement: Public reporting burden for this form is estimated to average 18 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Office of Planning and Performance Management. U.S. Dept. of the Interior, 1849 C. Street, NW, Washington, DC.

PAVING:—6 miles of brick and gravel.

GRADES:—Level.

WATER FACILITIES

Municipal ownership. Water supply from 3 wells, 93′, 94′ and 97′ deep respectively, located 3 miles northeast of the City. Gravity and direct pressure system. Water is pumped to 800,000 gallon reservoir through 8″ pipe by 3 American Well Works deep well plunger pumps, total capacity 240 gallons per minute. 2 American Well Works centrifugal pumps, capacity 350 gallons per minute each, draw from reservoir and pump direct into mains. One 75,000 gallon water tank, elevated 100′ to base on steel trestle. Two 11,500 gallon cisterns located on Main St., filled by hose from hydrants.

10 miles of 2″ to 8″ water pipe. 1 single, 27 double and 11 triple hydrants. Average daily consumption 135,000 gallons. Domestic pressure 52 lbs. Fire pressure 85 lbs.

FIRE DEPARTMENT

Volunteer. Partly paid. 1 chief, 1 assistant chief and 11 men. 1 station.

1 Ford combination truck with 250 gallon per minute pump, 900′ 2½″ hose, and 200′ 1½″ hose. One 25′ 4″ suction hose for cistern use. 1 Ford chemical truck with one 40 gallon chemical tank, 100′ 5-8″ hose and 150′ 1″ hose.

Fire alarm by telephone and siren.

NO FIRE-RESISTIVE ROOFING ORDINANCE.

Figure 1: 1937 Sanborn Map, Sheet 1, Cropped to show descriptions of Water Facilities and Fire Department.

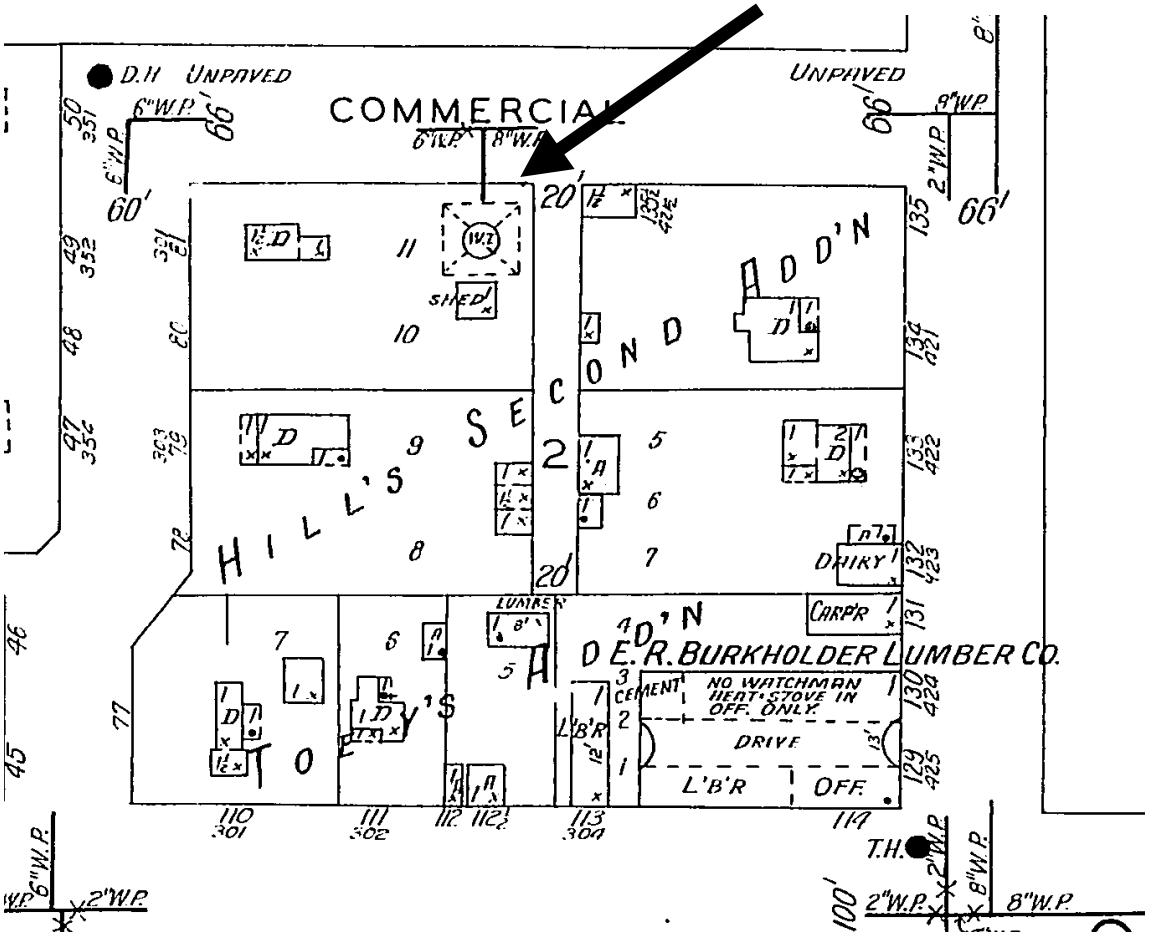

Figure 2: 1937 Sanborn Map, Sheet 3, Cropped to show Hill's Second Addition with water tower indicated by arrow.