NPS Form 10-900
(Oct. 1990)

United States Department of the Interior
National Park Service

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NAT. REGISTER OF HISTORIC PLACES
NATIONAL PARK SERVICE

912

# 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 *How to Complete the National Register of Historic Places Registration Form* (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If an 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 entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer to complete all items.

## 1. Name of Property

historic name Rafael Guastavino Jr. House

other names/site number The Tile House

## 2. Location

street & number 143 Awixa Avenue [ ] not for publication

city or town Bay Shore [ ] vicinity

state New York code NY county Suffolk code 103 zip code 11706

## 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 as 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 [ ] nationally [ ] statewide [X] locally. ([ ] see continuation sheet for additional comments.)

Ruth L. Pierpont DSHPO 9/26/13

Signature of certifying official/Title Date

New York State Office of Parks, Recreation & Historic Preservation

State or Federal agency and bureau

In my opinion, the property [ ] meets [ ] does not meet the National Register criteria. ([ ] see continuation sheet for additional comments.)

Signature of certifying official/Title Date

State or Federal agency and bureau

## 4. National Park Service Certification

I hereby certify that the property is:

[X] entered in the National Register
[ ] see continuation sheet
[ ] determined eligible for the National Register
[ ] see continuation sheet
[ ] determined not eligible for the National Register
[ ] removed from the National Register
[ ] other (explain) _____

Signature of the Keeper Barbara K. Beall date of action 12.11.13

## 5. Classification

**Ownership of Property**
(check as many boxes as apply)

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

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

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

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

| Contributing | Noncontributing | |
|---|---|---|
| 2 | | buildings |
| | | sites |
| | | structures |
| | | objects |
| **2** | **0** | **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**

N/A

## 6. Function or Use

**Historic Functions**
(enter categories from instructions)

DOMESTIC/ single dwelling

**Current Functions**
(Enter categories from instructions)

DOMESTIC/ single dwelling

## 7. Description

**Architectural Classification**
(Enter categories from instructions)

Mediterranean Revival

**Materials**
(Enter categories from instructions)

foundation Concrete
walls Brick and Tile
roof Mission Tile
other Wrought Iron

**Narrative Description**
(Describe the historic and current condition of the property on one or more continuation sheets)

**The Rafael Guastavino Jr. House** | **Suffolk County, New York**

Name of Property | County and State

## 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.)

[ ] **A** Property associated with events that have made a significant contribution to the broad patterns of our history.

[X] **B** Property is associated with the lives of persons significant in our past.

[X] **C** Property embodies the distinctive characteristics of a type, period, or method of construction or that 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 boxes that apply.)

[ ] **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 of age or achieved significance within the past 50 years

**Areas of Significance:**
(Enter categories from instructions)

Architecture

**Period of Significance:**

1914- 1950

**Significant Dates:**

1914

**Significant Person:**

Rafael Guastavino Jr

**Cultural Affiliation:**

N/A

**Architect/Builder:**

Henry Hornbostel & Rafael Guastavino Jr.

**Narrative Statement of Significance**
(Explain the significance of the property on one or more continuation sheets.)

## 9. Major Bibliographical References

**Bibliography**
(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

**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 Building Survey
# _____
[ ] recorded by Historic American Engineering Record
# _____

**Primary location of additional data:**

[ ] State Historic Preservation Office
[ ] Other State agency
[ ] Federal Agency
[ ] Local Government
[ ] University
[ ] Other repository: _____

**The Rafael Guastavino Jr. House** — Name of Property

**Suffolk County, New York** — County and State

## 10. Geographical Data

**Acreage of Property** 1.25 acres

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

| | Zone | Easting | Northing |
|---|---|---|---|
| 1 | 18 | 649161 | 4508798 |
| 2 | 18 | | |
| 3 | 18 | | |
| 4 | 18 | | |

**Verbal Boundary Description**
(Describe the boundaries of the property on a continuation sheet.)

**Boundary Justification**
(Explain why the boundaries were selected on a continuation sheet.)

## 11. Form Prepared By

name/title Julia Lewis

organization _____ date August 30th, 2013

street & number 1172 Amsterdam Avenue telephone 434-242-5152

city or town New York state NY zip code 10027

## Additional Documentation

Submit the following items with the completed form:

**Continuation Sheets**

**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.

**Photographs**

Representative **black and white photographs** of the property.

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

**Property Owner** (Complete this item at the request of the SHPO or FPO)

name George McDonald & Harriet Karr McDonald

street & number 143 Awixa Avenue telephone _____

city or town Bay Shore state NY zip code 11706

**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. 470 *et seq.*)

**Estimated Burden Statement:** public reporting burden for this form is estimated to average 18.1 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 Chief, Administrative Services Division, National Park Service, P.O. Box 37127, Washington, D.C. 20503

Narrative Description of Property

The Rafael Guastavino Jr. House, also known as "The Tile House," is located at 143 Awixa Avenue in Bay Shore, which is part of Suffolk County in New York. The site consists of the main house and a garage to the north. The 1.17 acre property is approached from the west and is bordered by residential properties to the north and south; the Great South Bay defines the eastern border. This nomination includes the entire lot historically associated with the Rafael Guastavino Jr. house and the garage.

The Rafael Guastavino Jr. House is a two and a half story Mediterranean style residence. The house is clad in 6-1/2" x 5-7/8" custom red brick. The edges of the house and window openings are bordered with longer rectangular bricks. Wooden brackets support an overhanging mission tile roof. The front of the house faces west. The house is asymmetrical and visually divided into three sections (Photo 001). The southern two-story portion is the main mass of the house and the northern two-story portion is recessed to the east. A three-story tower is extruded in the center of the house. Two chimneys are visible; one on the far south end of the house and a central chimney is attached to the north side of the tower. The mahogany entrance door is elevated by 4 risers on a single height entry porch, covered by a mission tile roof that is supported by wrought iron rods (Photo 002). A lantern hangs above the porch, its placement dictated by the carefully laid out stud framing. The front door is surrounded with a decorative, brightly colored tile border.

The southern facade of the house has an elevated open-air patio that surrounds the southeast corner (Photo 003). The patio is accessible through the arched doorways of the loggia on the eastern and southern ends of the house. The second story features a recessed porch with a wrought iron railing which is accessible from the master bedroom (Photo 004). Three tri-fold archways are supported by pale tiled columns with acanthus decoration on the abacus of the column. The original wood frames, designed so that screens could enclose the porch, are still intact above the openings.[1] Small Guastavino vaults line up with the arched openings and a single lantern hangs from the center vault. The slight overhang of the porch above the first floor is supported by wrought iron brackets and a projected brick decoration.

The rear of the house faces east towards the bay (Photo 005). The elevated porch continues and is partitioned from the rear yard by a brick wall that hides a double stair of six risers. The eastern half height wall of the porch was lost at one point but it has been rebuilt to match the original plans and drawings. The tower is flush with the rear of the house, adorned with two arched windows separated by a decorative column and tiling above (Photo 006). The original circular windows are still in use. To the north a pergola with simple stone columns and rough timber beams extends from the house to the bay. At the pergola's culmination near the house there is a brick wall with a teal tile and natural stone mosaic (Photo 007). A partial height wall, adorned with the same tiles as the roof, conceals the entrance to the basement on the northern end of the rear of the house (Photo 008). Above the entrance to the basement on the second story is an additional porch that is covered by a wooden pergola.

[1] McDonald, Harriet. Interview conducted by Julia Lewis. March 2013.

On the northern side of the house, stucco covers the revealed basement level and windows while the first and second stories retain the brick pattern from the rest of the house. A wall with an arched opening separates the side yard from the rear yard of the house. A side entry to the kitchen, denoted by an arched opening, is accessible from a stair that is hidden behind a stucco and brick wall to the western end of the house.

The interior retains its historic integrity to a very high degree. The first floor contains an entry vestibule, living room, hall, dining room and loggia in the center square portion of the house, while the northern wing contains a kitchen and service quarters. The front door opens into an entry foyer that is completely covered in tile (Photo 009). Pale square tiles cover the walls and small square teal and diamond shaped orange tiles are laid in mortar and surround four meticulously carved mahogany doors and a single north-facing window. The arched ceiling is constructed from pale green Guastavino tiles. Medium sized square brown tiles cover the floor and a green tile borders the edges of the floor and bottom of the walls.

The south end of the foyer steps up to two double swinging carved wooden doors and leads into a paneled cypress room with exposed wooden joists on a blue-tiled ceiling (Photo 010). The focal point of the room is a tiled fireplace flanked by two columns banded with colorful mosaic tiles (Photo 011). The fireplace is elevated on a tile pedestal and the tiled chimney extends to the ceiling above the door to the foyer. The room has a host of architectural details. Original sconces, having undergone the transition from gas to electric, hang adjacent to every window and door (Photo 012). Decorative tiles create a border between wall and ceiling. A multi-colored tile floor is accented with decorative smaller border tiles designed to frame rugs for the room (Photo 013). This method of tiling the floor to accommodate rugs is used throughout the house. A tile band borders the bottom of the walls. At the rear of the living room there is access to the hall to the north and the loggia to the east.

The living room leads into the main hall, where bright turquoise interlocking hexadecagon tiles cover the walls and encase a u-shaped stair (Photo 014). The ceiling is constructed from beige Guastavino tiles. A carved wooden door gives access to a small closet under the stair. Multi-colored diamond and square shaped tiles border the stairs and outline all of the openings in the room.

The main hall opens into the dining room where the bottom half of the wall is tiled and culminates in a tile chair rail. The upper portion of the wall is plastered and covered with paper (Photo 015). The paper has been replaced. The ceiling also is a Guastavino system and a central chandelier hangs from the center. Tiffany lamps flank the doorways (Photo 016).

To the south of the dining room is a fully tiled loggia that has an exterior door that opens to the east (Photo 017). Matte oversized bricks cover the walls and a red and white Guastavino vault supports the ceiling. Bricks border the four doorways, one on each wall. The doorways are arched and oversized. To the north of the dining room is the kitchen, which has been altered to accommodate modern standards (Photo 018). It still maintains an arched ceiling over the stove. The side entry is located on the northern wall of the kitchen.

The second floor contains the bedrooms and can be accessed by the main central hall stair or through the back stairwell in the service wing. Ascending the turquoise tiled main hall stairs leads to an upper hall that has

original built-in linen closets (Photo 019). A stained-glass window ornaments the southern wall by the stair. This hall provides direct access to four bedrooms including the master suite, which combined three original bedrooms to allow for larger closets and a large bathroom. The bedroom still retains a tiled corner fireplace which is highly decorated (Photo 020). The other four bedrooms on this floor, the fifth being accessed through another bedroom and back hallway, originally maids quarters, have maintained their historic form, including the solid doors with cast-metal knockers.

The third floor tower studio is accessible through the eastern bedroom. The tower studio walls are covered in mahogany panels and the vaulted ceiling has exposed beams. A brightly colored tiled fireplace named "Flora and Fauna" is the focal point of this room (Photo 021). Two tall thin arched windows open to the east. A small original window is high on the west wall of the studio. Also on the western wall there is an access door to the attic over the second floor of the house. Throughout the whole house the proximity to the bay is prevalent and most rooms have views of the water (Photo 022).

The basement of the house is unfinished and accessible only from the exterior.

A notable feature in the rear yard is a small water pond with a decorative tile lining. On the northern part of the site there is a garage that also faces west (Photo 023). The structure is clad in the same manner as the house and a flat roof is adorned with two rows of mission tiles at the parapet. The right side of the western façade protrudes and there is a large arched entry door with a single lantern hanging above the opening. To the left of the door there is a small window. Three windows perforate the northern and southern walls and additional access doors are on the eastern wall.

**Statement of Significance:**

The Raphael Guastavino Jr. House is eligible under Criterion B in the area of architecture for its association with the life of Rafael Guastavino Jr., who played a significant role in the development of architecture and building techniques of fireproofing and structural tile in America. The house at 143 Awixa Avenue was the home of Raphael Guastavino Jr. from 1914 until his death in 1950. It was here the Rafael Jr. would experiment with different glazing and firing techniques in the onsite detached garage that stands today. Guastavino, son of the developer of a renowned masonry vaulting system, developed and patented the trademark acoustic "akoustolith tiles" and continued to take on more prominent projects that maximized the capabilities of the system his father had brought from Spain. Engineering Historian John Ochsendorf notes, "Although there seemed to be little difference between father and son to the outside world, Guastavino Jr.'s early projects signaled a new attention to innovation in construction."[2] It was this curiosity in improving the system that allowed the company to expand its selection of tiles and provide for a specialized market. The Mediterranean-influenced house is additionally eligible under criterion C as an outstanding example of the work of Rafael Guastavino Jr. at the height of his career in partnership with prominent architect Henry Hornbostel. The Bay Shore residence is a showcase of the intricate work of the Guastavino legacy and the house retains a very high level of historic integrity.

The Guastavino tile vaulting system was brought to America by Rafael Guastavino Sr. and his son Rafael Guastavino Jr. helped evolve the system. The two are often confused as the same person, but each served a singular and complementary role within the company. Rafael Guastavino Sr. was born in Valencia in 1842 and worked in Catalonia. He was not trained as an architect formally but gained knowledge by working in the field. He came to the United States in 1881 and introduced a system of vaulting with tile, common to the Mediterranean, but not previously used in this country. He brought his youngest son, Rafael Guastavino Jr., with him. The younger Guastavino was born in 1872 in Barcelona, Spain and made the move with his father at the young age of eight. Rafael Sr. enrolled his son in a small school so that he could get specialized attention. He picked up English quickly; this served him well, as after two years he was tutoring his classmates. By 1883, Raphael was back in New York City and attended PS 29. He developed an interest in his father's work early on, as noted in Rafael Guastavino IV's book *An Architect and His Son: The Immigrant Journey of Rafael Guastavino II and Rafael Guastavino III*., "Now on school days after finishing his homework the boy would help out at his father's office, running errands while learning the rudiments of draftsmanship. He was taking an early interest in the business, just as his father had done at nearly the same age." [3]

Rafael Guastavino Sr. was quickly able to attract attention because his system was a modern fireproof solution and at this time safety standards for buildings were a large concern. In 1885 he filed three patents for fireproof buildings. Guastavino Sr. decided not to take on a full range of architectural duties, focusing instead strictly on vault design. Ochsendorf explains, "Tile vaulting is revolutionary for its economy of materials and its speed of construction. Two key features distinguish tile vaulting from other types of masonry vaulting. First,

[2] Ochsendorf, John Allen., and Michael Freeman. *Guastavino Vaulting: The Art of Structural Tile*. New York: Princeton Architectural, 2010. Page 115

[3] [3]Guastavino, Rafael, IV. *An Architect and His Son: The Immigrant Journey of Rafael Guastavino II and Rafael Guastavino III*. Westminster, MD: Heritage, 2006. Page 14-15.

thin tiles are laid flat to constitute the surface of the vault, joined along their thin edges, in contrast to the vertical orientation of masonry units in traditional construction. Second, the first layer of tiles is joined with plaster, which sets so quickly that tiles are held in place almost instantaneously and there is no need for support from below during construction."[4] The system did not require scaffolding, which made construction much faster. Iron was used to reinforce the structure, allowing the spanning of great distances. Portland cement, which had a higher strength and resistance to water, was readily available for use Guastavino Sr. had not had access to Portland cement in Spain. Ochsendorf notes, "[The] vaults functioned through an internal bonding together of the tiles and mortar, which allowed each vault to function as a unified material that could take tension, and therefore exerted no thrust on the supports."[5] This system was efficient and allowed for larger spans to be achieved in architectural design.

Rafael Guastavino Sr.'s first major project in America was an addition to the Boston Public Library with Charles McKim of McKim Mead and White. This is also the first building with the Guastavino system where the tiles were left exposed; typically in Spain they would have been covered with plaster. Guastavino took advantage of the exposed tiles, creating different glazes and patterns that could be applied at different price points. McKim validated his skill by saying, "I would not hesitate to place my entire confidence in the Guastavino system."[6] McKim's design took full advantage of the system, using seven different types of Guastavino vaults throughout the additional library wing.

Guastavino Sr.'s next chance to showcase his work was at the World's Columbian Exposition of 1893. Guastavino worked on the Spanish Pavilion, having the luxury of being able to be on site throughout construction. He used the exposition as a chance to show off the high load capacity of the cohesive construction technique and its resistance to fire.

In 1887, at the age of fifteen, Raphael Jr. finished school at PS 29 and transitioned to working full time for his father. He continued his self-education, spending hours in the public library, especially the architecture section, but also frequented the subjects of geography, history, astronomy, and science.[7] In 1889 the Guastavino Fireproof Construction Company was established. Rafael Guastavino Jr. was part of the company from its inception. Eight years later, in 1897, the company was simply renamed the R Guastavino Company. [8] Rafael Jr. had quickly picked up and augmented his father's trade; by the time he was nineteen he had produced four patents for tile vaulting. His first patent introduced a vaulted floor system that would absorb sound, serving as a buffer between apartments.

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[4] Ochsendorf, John Allen., and Michael Freeman. *Guastavino Vaulting: The Art of Structural Tile*. New York: Princeton Architectural, 2010. Page 20.
[5] Ibid Page 54.
[6] Ochsendorf, John Allen., and Michael Freeman. *Guastavino Vaulting: The Art of Structural Tile*. New York: Princeton Architectural, 2010. Page 60.
[7] Guastavino, Rafael, IV. *An Architect and His Son: The Immigrant Journey of Rafael Guastavino II and Rafael Guastavino III*. Westminster, MD: Heritage, 2006. Page 19.
[8] Collins, George. "Guastavino Fireproof Construction Company. Avery Architectural & Fine Arts Library. Columbia University.

Raphael Guastavino Sr. was spending a lot of time in North Carolina working on the Biltmore Estate with Richard Morris Hunt for the Vanderbilt family and decided that he would also like to move to North Carolina. He was confident in the team he had in the north which included his son. Raphael Guastavino IV notes, "This plan happened to fit [Guastavino Sr's] personal life as well, for he still held out hope of establishing a permanent home for himself and Francesca in the mountains of western North Carolina. Young Rafael (now twenty two) and Blodgett were prepared to take over, as were two other members of the New York staff - Garretta and Robst."[9] When Guastavino Sr. moved to Black Mountain, North Carolina, Guastavino Jr. became the company leader. Rafael Jr. had been able to develop a rapport with William Blodgett, the treasurer of the Guastavino Fireproof Construction Company, who allowed Guastavino Sr. to focus on design, rather than finances.

Despite his young age, Rafael Jr. had been exposed to all of the aspects of the business and his work was able to flourish and expand the capabilities of the tiles that were being produced in the company his father had started. He had ten years of full-time experience by age twenty-three. With his parents in North Carolina, Rafael Jr. moved to Woburn, Massachusetts. It was here that he won his first competition, the Annual Competition for Medals of the Architectural League, for his design of "a church in the colonial style." Rafael Jr. continued to play more of a role within the company and eventually was appointed third directorship and vice president of the Guastavino Fireproof Construction Company.[10]

By 1898 Rafael Jr. was taking on jobs out of town, his first major project being the reconstruction of the dome of the University of Virginia in Charlottesville, Virginia, which had previously burned down.[11] Stanford White was the architect for the project and the fireproof tile system was a very attractive replacement after the catastrophe.

Rafael became frustrated with the lack of consistency between tiles and decided that the company needed to produce their own so that a higher standard and quality could be obtained. In 1898 Rafael Jr. trekked down to North Carolina to discuss the idea with his father, who knew quite a bit about tile factories from his time in Spain.[12] They applied for a patent for manufacturing the tiles. Because most of the company's projects were in the northeast it made sense to move production to an accessible location. They converted an old church to a factory in Woburn, Massachusetts in 1900. In 1903 the factory was producing over 200,000 tiles per year. The company needed more space and so they built their own factory which Rafael Jr. designed in 1906. Because they had their own factory they had better control over the tile quality and could also create custom designs. The frequent patenting of ideas gave the R. Guastavino Company a monopoly on the production of the vault system. They controlled the design, creation, and construction. Additionally, they were able to adapt their tiles to diverse architecture styles and scales of projects.

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[9] Guastavino, Rafael, IV. *An Architect and His Son: The Immigrant Journey of Rafael Guastavino II and Rafael Guastavino III*. Westminster, MD: Heritage, 2006. Page 39.
[10] Ibid. Page 39 & 43.
[11] Ibid. Page 44.
[12] Ibid. Page 45.

Guastavino Sr. died in 1908 leaving his son to complete his unfinished …?????….. and carry on the company's business. Guastavino Sr. had been designing a church in Asheville, North Carolina until his dying day and the church thankfully notes, "He left the designs and plans for the Main Altar and Lady Chapel still to be made; but fortunately for Asheville and St. Lawrence Church, he also left a son, Rafael Guastavino Jr. who inherits his father's skill and generosity as well; and this son has most beautifully completed his father's unfinished work."[13]

Rafael Sr. also left his son with monumental projects to finish, such as the dome on the Cathedral of St. John the Divine in New York, New York. This dome was the largest dome ever constructed by the R. Guastavino Company. At this time, when money was tight, Rafael Jr. was able to use the system to accelerate the speed of construction in an inventive and revolutionary way. Rafael IV notes, "Rafael Jr. dared to consider building this tremendous dome minimizing the centering and scaffolding on which the men would work."[14] After the dome on St. John's was completed, business picked up for Rafael.

The company continued to have great success, which brought wealth to the family and allowed Rafael Jr. to travel. Taking advantage of the recurring lull of work in the winter, Rafael and his wife, Elsie, traveled to study and photograph masonry domes in Mexico. They also traveled to France, Egypt, Italy and Spain in 1912. He collected tiles on all of his travels for personal use and for business. Rafael IV notes, "In Egypt, Rafael was finding success in buying the antique glazed tile he was seeking for several jobs and for his Mediterranean tile collection…In Madrid, Rafael would buy over a hundred tiles for his collection." When he returned to New York in 1912 he decided that he wanted to build a home for his family that would use the Guastavino vault system throughout the whole house and be a showcase for his tile collection. The family had rented a cottage in Bay Shore in prior summers and felt ready to build its own house, especially with their first child on the way. Direct access to navigable water was a requirement and eventually Rafael Jr. bought two waterfront lots in Bay Shore, from which Fire Island could be seen in the distance. He hired his friend, architect Henry Hornbostel, to help him design the house. Rafael IV explains, "The house he desired would naturally show some Spanish qualities, and be built principally of masonry with cohesive tile construction. On his trip to Europe, Rafael had studied the designs of many different buildings which one way or another might be used as examples in designing his own house."[15]

Henry Hornbostel was born in Brooklyn in 1867 and trained as an architect at the Ecole des Beaux-Arts in Paris. His architectural training put in him in a league of architects that included Charles McKim, Richard Morris Hunt, H.H. Richardson, and Louis Sullivan. Hornbostel's designs are distinctive. *Architectural Record* noted "His ability to marry Beaux Arts forms with the industrial underpinnings of 20th-century construction served him well…."[16] Hornbostel practiced in New York until World War I, which made the Rafael Guastavino Jr. House one of the last projects he completed while based in New York. Hornbostel left New York for Pittsburgh, where he continued to practice architecture and held a teaching position at Carnegie Mellon for thirty

[13] Ibid. Page 53.
[14] Ibid. Page 67.
[15] Ibid. Page 67, 82-87, & 91.
[16] "Henry Hornbostel, Disciplined Eclectic." Architectural Record. August 28, 1997. Page 57

years. Hornbostel was familiar with the Guastavino tile system and had incorporated it into many of his projects, including the Queensboro and Williamsburg Bridges, NY; the New York State Education Building, Albany, NY; the Central Campus Master Plan at Margaret Morrison College, Pittsburgh, PA; the Rodef Shalom Congregation, which in 1907 had the largest Guastavino tile dome in the world, Pittsburgh PA; The U.S. Bureau of Mines at Carnegie Mellon University, Pittsburgh, PA; the City-County Building, Pittsburgh, PA; the University Club building, Pittsburgh, PA; and the Congregation B'nai Israel, Pittsburgh, PA. Rafael Jr.'s selection of him as the architect for the house made sense. Architectural historian Walter C. Kidney commented on the use of Guastavino tile in Hornbostel's projects, "New materials possess a certain fascination for Mr. Hornbostel beyond what they have for the less imaginative mind of the average architect, and in the use of Guastavino tile among new materials he has led the way as he has in steel work."[17]

Construction began on the Guastavino family's Mediterranean style villa with Gothic and Romanesque detailing, influenced by Guastavino's travels, in 1913. The family moved in December of 1914. The house utilized the Guastavino vaulting system and boasted a panoply of detailed tile designs throughout. Tiles from all over the world were used. The fact that Rafael Jr. could construct a personal home using the Guastavino vault system and tiles is an indication of his wealth and thus the success of the company. Only the wealthiest in New York, such as the Vanderbilts, Morgans, Astors, Rockefellers, and Mellons, could afford this system in their homes. Not even Guastavino Sr. was able to afford the system in his personal home in North Carolina because it was constructed when the company was nearly bankrupt. It is ironic that Guastavino Sr.'s house was built using wood construction because he had spent his life advocating masonry. Rafael IV comments, "Now he was forced to swallow his words for in his present curtailed financial situation, it was simply beyond his means to proceed with plans to bring cement, brick, and tile for his Cohesive Construction into Black Mountain -- not to mention the skilled masons to build the house."[18] The company was in much better standing when Rafael Jr. built his house. Even after the house was completed he continued to develop the yard, building a cement pond between his house and the bay, along with a tennis court.

Rafael Jr. spent almost half of his life in the Bay Shore residence and it was here that he refined his skills and further developed his career. He had a kiln in the garage where he would experiment with new glazing and firing techniques. He continued to study acoustics, a longstanding interest of his, and in 1915 patented the acoustic "akoustolith tile," which is today seen as trademark of the company. George Collins, professor of art history at Columbia University notes, "The invention about the time of the First World War by Mr. Guastavino Jr. (in conjunction with Prof. Wallace Sabine of Harvard University) of the sound absorbing masonry tile "akoustolith" brought the peak amount of work during the building boom of the nineteen twenties."[19]

As tiles became more decorative they also became more expensive. The Depression contributed to the decline in demand for the unique system, and the desire for Guastavino tiles diminished as steel and concrete

[17] Kidney, Walter C. *Henry Hornbostel: An Architect's Master Touch.* Pittsburgh History & Landmarks Foundation in cooperation with Robert Rinehart Publishers. 2002. Page 25.
[18] Guastavino, Rafael, IV. *An Architect and His Son: The Immigrant Journey of Rafael Guastavino II and Rafael Guastavino III*. Westminster, MD: Heritage, 2006. Page 36-37
[19] Ibid. Page vi.

were introduced in the late 1920s. However, Rafael Jr.'s work continued to evolve and he took on more projects. He was selected to work on the Nebraska State Capitol, which represented a shift in the architecture of government buildings, "The Nebraska State Capitol was the country's finest vernacular Capitol - differing dramatically from the architecture of traditional state capitols. The building features a low square foundation of floors with a 400 foot tower rising upward from the center. Atop the tower is a dome... An architectural masterpiece, it took 10 years and nearly 10 million dollars to build, and was a hugely successful project for the R. Guastavino Company entering the 1930's."[20]

At age seventy-one Rafael Guastavino Jr. sold the company in 1943 to Malcolm S. Blodgett, son of William E. Blodgett, who had been the treasurer for the R. Guastavino Company.[21] Guastavino continued to draw plans and improve the system from his house in Bay Shore until his death in 1950. The R. Guastavino Company eventually closed in 1962.

The legacy of the Guastavino system is still relevant today; it was used in over one thousand buildings in forty-one American states and nine different countries.[22] Two hundred and thirty-three of these buildings are in Manhattan. Ochsendorf concludes: "Within a few decades, the Guastavino Company had constructed tile vaulting in landmark buildings in nearly every state, achieving a level of success unimaginable upon Guastavino Sr.'s arrival in New York in 1881. Three reasons in particular allowed the Guastavino Company to prosper in the competitive American construction industry, the rise of Beaux-Arts architecture, constant technological innovation, and the talents of the father and son." In the October 1968 *Journal of the Society of Architectural Historians,* George Collins noted, "In 1900, American architects were polled as to the ten most beautiful buildings in the United States. Of those that did not antedate Rafael I's arrival in this country, all but two were of Guastavino construction, and the company had been involved in additions to two of the earlier ones as well!"[23]

The house on Bay Shore is an unparalleled example of the use of the Guastavino system in a residential home. Rafael Guastavino IV notes, "The building of the house was attracting considerable attention in Bay Shore, particularly among family and friends. Sightseers were frequent visitors too, initially to see the unique construction of the lower floor. Later on, they were surprised by the unusual height of the house."[24] The residence at Bay Shore was the primary home of Rafael Guastavino Jr. and his family, as noted in the 1920 census.[25] Approximately 8.5 percent of the buildings that have the Guastavino system are residential, fifty-one out of a survey of six hundred. Of the fifty-one residential buildings, thirty-six are located in the state of New York, eleven are out of Manhattan and six are located on Long Island. The Bay Shore residence is singular

[20] Ibid. Page 101.
[21] Collins, George. "Guastavino Fireproof Construction Company. Avery Architectural & Fine Arts Library. Columbia University.
[22] Guastavino, Rafael, IV. *An Architect and His Son: The Immigrant Journey of Rafael Guastavino II and Rafael Guastavino III*. Westminster, MD: Heritage, 2006. Page vi. Also; Link, Karin Murr. *Guastavino Tile Construction: History and Restoration.* Graduate School of the University of Oregon Master of Science Thesis. June 1995.
[23] Guastavino, Rafael, IV. *An Architect and His Son: The Immigrant Journey of Rafael Guastavino II and Rafael Guastavino III*. Westminster, MD: Heritage, 2006. Page 150 & 10.
[24] Ibid. Page 95.
[25] US Census, New York 1920. "Rafael Guastavino."

because, according to Ochsendorf, it is "built almost entirely in tile vaulting."[26] The father-son duo was able to evolve a basic system to complement new architectural designs. Always inventing, they produced twenty-four patents between themselves. This house serves as a singular testament to the work of the Guastavinos. While other residences may have a room with the system, it is rare to find a residence that incorporates the Guastavino vault system throughout the house. Also other residences are slowly being converted into hotels, educational buildings, even places of worship. As Ochsendorf notes, "The Bay Shore Residence is a living museum to the life and work of Rafael Guastavino Jr. as well as an unexpected world of Spanish-influenced architecture on the coast of Long Island."[27] The Guastavino Residence has been kept for single family use as it was originally intended with minimal alterations to the house.

[26] Guastavino, Rafael, IV. *An Architect and His Son: The Immigrant Journey of Rafael Guastavino II and Rafael Guastavino III*. Westminster, MD: Heritage, 2006. Page 134.
[27] Ochsendorf, John Allen., and Michael Freeman. *Guastavino Vaulting: The Art of Structural Tile*. New York: Princeton Architectural, 2010. Page 137

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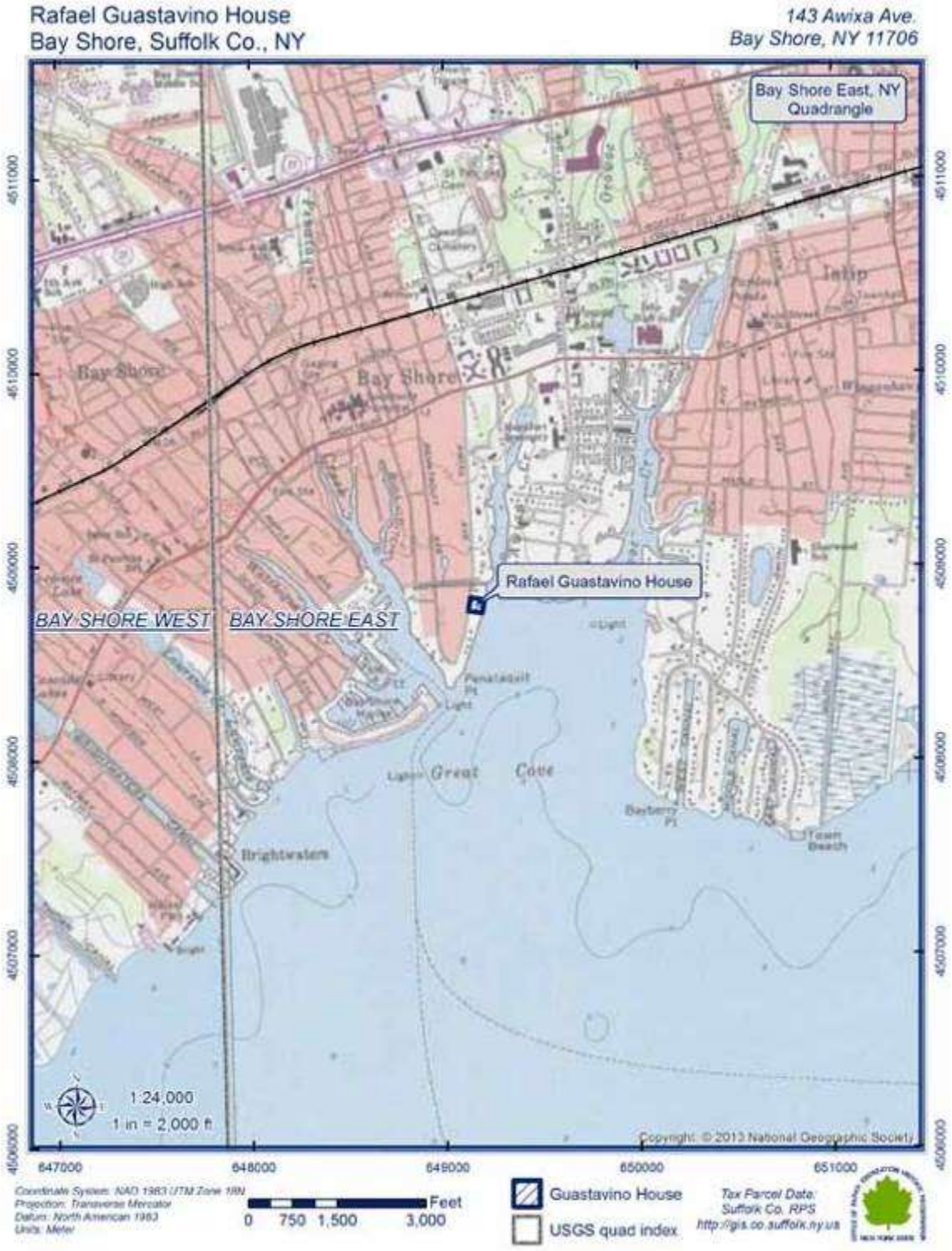
Ochsendorf, John Allen., and Michael Freeman. *Guastavino Vaulting: The Art of Structural Tile*. New York: Princeton Architectural, 2010.

Verbal Boundary Description
The boundary is indicated by a heavy line on the enclosed map.

Boundary Justification
The house is located on the lands associated with its 1914 date of construction and the 1914 to 1950 period of significance. Its boundary is indicated by the heavy line on the attached mapping.


Rafael Guastavino House
Bay Shore, Suffolk Co., NY
143 Awixa Ave.
Bay Shore, NY 11706
Bay Shore East, NY
Quadrangle
Rafael Guastavino House
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Brightwaters
Bay Shore
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Guastavino House
USGS quad index
Tax Parcel Data:
Suffolk Co. RPS
http://gis.co.suffolk.ny.us

Rafael Guastavino House
Bay Shore, Suffolk Co., NY
143 Awixa Ave.
Bay Shore, NY 11706
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Guastavino House
Tax Parcel Data:
Suffolk Co. RPS
http://gis.co.suffolk.ny.us

Additional Information

Name of Property: Rafael Guastavino Jr. House
City or Vicinity: Bay Shore, New York
County: Suffolk County
State: New York
Name of Photographer: Julia Barksdale Lewis
Date of Photographs: March 2013
Location of Original Digital Files: 309 W 111th St. Apt 14 / New York, NY 10026

Photo 001 (NY_Suffolk County_Rafael Guastavino Jr House_001)
North Facade (left) and West Facade (right). Camera facing southeast.

Photo 002 (NY_Suffolk County_Rafael Guastavino Jr House_002)
West Façade, Main Entrance. Camera facing East.

Photo 003 (NY_Suffolk County_Rafael Guastavino Jr House_003)
South Facade (left) and East Facade (right). Camera facing northwest.

Photo 004 (NY_Suffolk County_Rafael Guastavino Jr House_004)
Second story porch off Master Suite. Camera facing West.

Photo 005 (NY_Suffolk County_Rafael Guastavino Jr House_005)
East Façade. Camera facing West.

Photo 006 (NY_Suffolk County_Rafael Guastavino Jr House_006)
Window detail on third story of East. Camera facing West.

Photo 007 (NY_Suffolk County_Rafael Guastavino Jr House_007)
Pergola wall detail. Camera facing West.

Photo 008 (NY_Suffolk County_Rafael Guastavino Jr House_008)
East Facade (left) and North Facade (right). Camera facing southwest.

Photo 009 (NY_Suffolk County_Rafael Guastavino Jr House_009)
Door between entry hall and living room. Camera facing South.

Photo 010 (NY_Suffolk County_Rafael Guastavino Jr House_010)
Living room. Camera facing South-east.

Photo 011 (NY_Suffolk County_Rafael Guastavino Jr House_011)

Fireplace in main living room. Camera facing south.

Photo 012 (NY_Suffolk County_Rafael Guastavino Jr House_012)
Double doors in main living room. Camera facing North.

Photo 013 (NY_Suffolk County_Rafael Guastavino Jr House_013.)
Tile detail on Living Room floor.

Photo 014 (NY_Suffolk County_Rafael Guastavino Jr House_014)
Stairwell from first floor. Camera facing North.

Photo 015 (NY_Suffolk County_Rafael Guastavino Jr House_015)
Dining room. Camera facing South.

Photo 016 (NY_Suffolk County_Rafael Guastavino Jr House_016)
Tiffany lamp fixtures in dining room. Camera facing South.

Photo 017 (NY_Suffolk County_Rafael Guastavino Jr House_017)
Sun porch. Camera facing North-west.

Photo 018 (NY_Suffolk County_Rafael Guastavino Jr House_018)
Renovated kitchen. Camera facing South-west.

Photo 019 (NY_Suffolk County_Rafael Guastavino Jr House_019)
Upstairs hall. Camera facing North-east

Photo 021 (NY_Suffolk County_Rafael Guastavino Jr House_021)
Fireplace in third story studio. Camera facing north.

Photo 020 (NY_Suffolk County_Rafael Guastavino Jr House_020)
Fireplace in master suite. Camera facing North.

Photo 022 (NY_Suffolk County_Rafael Guastavino Jr House_022)
Pergola. Camera facing East.

Photo 023 (NY_Suffolk County_Rafael Guastavino Jr House_0023)
Garage South Façade. Camera facing North.

Historic Photos courtesy of the Bay Shore Historical Society

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