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Doctors House Museum & Gazebo

Conditions Assessment Report

Prepared for
The Glendale Historical Society

Prepared by
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Doctors House Museum (ARG, 2016)

Introduction

The Doctors House Museum and Gazebo is a historic house museum in Glendale, CA. The Queen Anne-Eastlake style house was constructed in 1888 and is known for being the residence and office of four prominent Glendale physicians who occupied the house from 1896 to 1914. Under threat of demolition, the house was purchased by the City of Glendale in 1980 and relocated from its original location at 921 East Wilson Avenue to its current location in Brand Park. It was then lovingly and meticulously restored by The Glendale Historical Society (TGHS), and opened for public tours. The Gazebo, constructed in a similar style, was included in 1999.

The Doctors House is one of the last remaining examples of the Queen Anne and Eastlake architectural styles in the area. It stands testament as the result of a successful community-wide effort to preserve and restore a piece of Glendale's early history.

This report is presented to The Glendale Historical Society in order to document existing conditions of the house and gazebo and provide recommendations for their continued care and maintenance.

Doctors House, circa 1901 (courtesy The Glendale Historical Society)

Background and Description

The Doctors House was constructed as a speculative venture in 1888-89 by a real estate developer, Ellis T. Byram. It was constructed at the corner of East Wilson Avenue and North Belmont Street, near the center of Glendale's first business district. The design incorporates a number of architectural styles. Primarily it reflects the Queen Anne style, as can be seen in the asymmetrical massing, the arched lattice-work porches (called "moon gates") and other trim such as the appliqued sunbursts and teardrop pendants. Secondarily, it reflects the Eastlake style, including the spindles, knobs and newels ornamentation; other architectural styles incorporated to a lesser degree include the San Francisco Stick style and the Italianate style.

The house was originally built as a one-story cottage, with an unfinished attic that could be accessed through the pantry ceiling. It changed hands a few times early in its history before being purchased in 1896 by the first physician, Dr. Charles Virgil Bogue. The Bogue family resided in the house for several years, using one of the rooms as a doctor's office, and made a few modifications, including finishing out a portion of the attic for a child's bedroom and playroom and installing a steep staircase.

Background

The house was sold to the second physician, Dr. David Winslow Hunt, in 1901. The Hunt family further expanded the attic to include a master bedroom and bathroom. Dr. Hunt used a room as an office and later built or remodeled a carriage house on the property for use as an office.

The house was sold in 1907 to the third physician, Dr. Allen Lincoln Bryant, who resided in the house for a short time. It was sold again to Dr. Leonidas Hamlin Hurtt the following year, who was a chemist in the medical field. Dr. Hurtt remodeled the house extensively for his new bride, including enclosing a porch on the west side for a new kitchen, turning the existing kitchen into a Craftsman-style dining room, turning the existing dining room into a second parlor, revising the staircase to better proportions, removing the parlor window seats, and overlaying the interior floors with oak.

Following 1914, the house changed hands several more times. It was rented by another physician and later by the silent screen star Nell Shipman and her family. Various renovations occurred, including modernizing the bathrooms and overlaying wall finishes to suit the styles of the times.

In 1921, it was purchased by the Dzaich and Kordich families (related by marriage) who split the house into two separate residences. An exterior stair was constructed on the north side, and a second floor window was turned into a separate entrance. The first floor parlor was also converted into a bedroom. The Dzaich and Kordich families retained the house for almost sixty years with relatively few changes; however, by 1980, the house was in poor condition, and was purchased by a developer who planned for demolition.

Doctors House, circa 1980, showing the house split into two section for relocation (courtesy The Glendale Historical Society)

A group of concerned citizens organized and incorporated into The Glendale Historical Society (TGHS) with the purpose of saving the house. They reached an agreement with the City of Glendale to purchase the house and relocate it to Brand Park. The city would assume financial responsibility for exterior maintenance and landscaping costs, and TGHS would be responsible for restoration, interior maintenance, acquisitions, museum duties in overseeing the property, and other financial support, such as insurance.

In September of 1980, the house was moved to its current location. For the move, the house was divided into two large sections, raised on steel beams, placed on truck beds, and slowly moved along the six-mile route to Brand Park. Ability Heavy Movers, Inc. of Rialto, CA performed the work. The move occurred during the night and took approximately 8-1/2 hours to complete due to issues with overhanging utility wires, trees, etc. Once in place, the house was then lowered onto a pre-prepared new foundation, constructed by Frank T. Howard Development Co. Unfortunately, the foundation was not built exactly to the house dimensions and needed some modifications before it could be anchored in place.

Once complete, the restoration work began. The team, coordinated by the Gregg/Gangi Development Co., carefully stitched the house back together, researched and restored every detail to its circa 1890 condition. A few concessions were made, including retaining some later remodeling features, such as the enlarged attic dating to around 1902 and the enclosed porch and kitchen dating to 1908; other updates included modern HVAC systems, an accessible restroom, and an alarm system. In total, the relocation and restoration work cost approximately $200,000. Funding was provided through the Community Development Block Grant program, municipal funds, support from local businesses, and private donations. In addition, more than 150 volunteers contributed over 18,000 hours in manual labor, research and fund-raising activities.

Summary of History and Alterations

1888-89	House built at 921 E. Wilson Avenue (corner of E. Wilson Ave. and N. Belmont Street), by real estate developer Ellis T. Byram.
1/18/1890	Purchased by Emma L. Jay, wife of W. J. Jay. The Jay family most likely resided in the house, but little else is known. They may have purchased the house as a shell, and completed the interior finishes.
12/22/1894	Purchased by Alice M. Junken (or Junkin). The Junken family resided in the house briefly.
7/7/1896	Purchased by Dr. Charles Virgil Bogue.
1896-1901	Bogue family resided in the house, and he used a room for an office. Bogue renovations included: • Installation of a steep and narrow staircase to the upstairs attic space. • Finished the attic's central and east wing rooms for more living space, including a bedroom and playroom. Walls were finished with plaster.
1/29/1901	Purchased by Dr. David Winslow Hunt.
1901-07	Hunt family resided in the house. He reportedly used the office in the house for a time, but then built and/or remodeled the carriage house for use as an office.

1902	Hunt renovations included: • Expansion of the attic's west wing, raising the roof and remodeling it for a master bedroom and bathroom. • Added a dormer window for the new bathroom; the dormer was adjacent and similar to an existing dormer for the stair landing/ sewing nook. • Reportedly enclosed the porches with screens.
1905	The house was wired for electricity.
9/24/1907	Purchased by Dr. Allen Lincoln Bryant. The Bryant family only lived in the house for one year. No alterations noted.
10/16/1908	Purchased by Dr. Leonidas Hamlin Hurtt.
1908	Hurtt renovations included: • The open porch on the west side was enclosed and extended to form the lean-to addition that exists today (now the accessible restroom). The enlarged space was divided into a new kitchen, laundry/ chore area, and a small water closet. • The original kitchen was remodeled and re-paneled into a Craftsman-style dining room.
1908 continued	• The pantry was remodeled, but retained some original features such as the raised floor of the cabinet, the boxcar paneling and chair rail. (The California cooler was added post-1910). • The original dining room was converted to a second parlor. • The steep staircase was replaced with one having better proportions. It extended further into the dining room, and featured Craftsman-style post and rail details, and only a left-handed banister, with no handrails above. • The large double doorway between the parlor and dining room was enclosed. • Oak flooring was laid over the original fir floors (a second layer of oak was installed sometime later, possibly around 1920). • The parlor window seats were removed. • Most likely extended the parlor's west wall, replacing the large sliding door with a regular-sized sliding door. • The door leading from the bedroom to the kitchen was enclosed for a china cabinet.

1908 continued	Indoor plumbing was most likely installed at or slightly before this time; it included a boiler, hot and cold water piping at the kitchen sink, flush toilets, and most likely cold water only at the bathroom lavatories.
7/9/1910	The house received gas line service (Southern California Gas Company)
1910-	The "California cooler" was added in the pantry around this time.
10/30/1914	Purchased by Florence J. Bennette, who may or may have not resided in the house.
1917-20	The Shipman family rented and resided in the house. Nell Shipman was a silent screen actress, screenwriter and independent producer/director.
1921-22	Dr. Harry C. Smith rented and resided in the house.
1920's	Misc. renovations included modernization of the first floor bathroom, including installation of gypsum wallboard over the original wood paneling.
1/24/1921	Purchased by Joseph Dzaich and Peter Kordich (related by marriage to sisters Katie Dzaich and Mary Kordich)
1921-80	Dzaich and Kordich families jointly resided in the house.
1930	The house was split into two separate residences. Renovations included: • Exterior stair and second floor landing was added to the north elevation, and the sewing nook window was converted to a door opening. • A stove was added upstairs, and a sink was added in Dot's room (cold water only until 1945). • Converted the first floor parlor into a bedroom
1970's	House became more widely known as "the Doctors House."
1977	Glendale City Council recommended that the house be preserved. It was seen as representative of an important early phase in the history of Glendale, one of the last remaining Queen Anne-Eastlake houses in the City, and one of the few homes that pre-dated 1910.
3/28/1980	Purchased by Belmont Plaza Development Co. and scheduled for demolition. The Glendale Historical Society (TGHS) formed, and reached an agreement with the City of Glendale who purchased the house from the developer.
9/1980	Relocated to Brand Park.
1980-84	Restoration work.
May 1984	The house was opened for tours.
1999	The Gazebo was donated to the City of Glendale by TGHS.

Doctors House Museum (ARG, 2016)

Conditions Assessment

The following architectural conditions assessment has been provided for both the exterior envelope and the interior finishes at The Doctors House Museum and Gazebo. Conditions for the house have been broadly grouped into the following categories: Foundation, structural framing, roofing and flashings, wood siding and trim, windows and doors, interior floors, interior walls ceilings and trim, fixtures and hardware, furnishings and collections, and building systems.

Typical brick foundation and crawl space vents. (ARG, 2016)

Crawl space and concrete stem wall foundations. Note water staining at stem wall. (ARG, 2016)

Crawl space and concrete pier footings. Note misc. lumber at grade. (ARG, 2016)

Doctors House

Foundation

The Doctors House foundation consists of concrete masonry unit (CMU) walls at the house perimeter and concrete piers or stem walls supporting key structural members. It appears that a stem wall was also provided for the dividing line where the two house sections were reconnected following the relocation. It is assumed that the foundation walls are supported by reinforced concrete footings below grade (not visible during survey). There is a small excavated basement area at the central north section of the house, accessed from a basement access door and stairs; the remainder is crawl space and portions have been trenched for mechanical systems, etc. The foundation work dates to 1980 when the house was relocated. According to TGHS records, the foundation was constructed by Frank T. Howard Development Co. in advance of the move. However, when the house was lowered onto its foundation, the built dimensions were inaccurate. The house was raised back up onto the moving beams, and modifications were made for a better fit. The exact details of the modifications are unknown at this time.

At the south (principal) elevation and the east elevation, the visible portions of the foundation walls are faced with red brick masonry. The bricks were salvaged from the original house construction, and were cleaned and reinstalled with new mortar. The detail features several courses of running bond topped by a row of angled soldier bricks. At the north and west elevations, the CMU foundation walls are visible below wood siding. Crawl space vents have been provided throughout the perimeter of the house. They vary in size and detailing, depending on location, and all have screens.

In general, the house foundation is in fair condition. The CMU walls of the basement stair are stained and have efflorescence. This is most likely related to surface water leaking through the basement door and/or ground or irrigation water seeping through the masonry. The water mobilizes soluble salts, which then crystallize at the surface as the moisture evaporates. It is unknown whether a below-grade waterproofing system was installed when the foundation was constructed. TGHS staff report that the basement door is poorly sealed, and rainwater cascades down the stair and pools in the basement. The storage area is prone to dampness and mold during the rainy season. At present, the house structure remains dry but this could change if this condition is left unchecked.

Crawl space areas are open and accessible and receive good ventilation. There was no standing water or sign of excessive ground moisture at the time of survey. There was some water staining noted at an interior concrete stem wall, but it does not appear to be recent. Most ductwork and conduits are supported from the floor structure above; ductwork appears to be insulated. There is some miscellaneous lumber on the ground of the crawl space which could tempt wood-destroying insects. No frass or evidence of termite activity was noted at this time.

The salvaged brick masonry is in fair condition overall. There were numerous cracks through the mortar noted, particularly at the entrance stair walls at the south elevation. The cracks appear to be more related to settlement or minor movement or are adjacent to unsupported openings at the crawl space vents. A few brick units at the south elevation appear to be heavily eroded; it is unclear whether these bricks are softer masonry and spalled in relation to the relatively hard portland cement-based mortar, or whether they were previously spalled or damaged during the move and reinstalled in that condition.

Efflorescence and staining at CMU walls of basement stair. (ARG, 2016)

Cracking through mortar joints at brick stair wall, south elevation. (ARG, 2016)

Eroded brick unit at foundation wall, south elevation. (ARG, 2016)

Loose brick units at crawl space vent, south elevation. (ARG, 2016)

Structural floor framing at crawl space. (ARG, 2016)

Structural roof framing at attic storage area. Also note spaced roof sheathing boards and plywood sheathing overlay. (ARG, 2016)

There are loose brick units at the south elevation crawl space vent below the Parlor; it is unclear whether they are spare salvaged units or belong at this opening and are now loose. The opposite crawl space vent at the north elevation has a different opening configuration (see photo on pg. 8). No information was noted relating to the original crawl space vent openings prior to the house being relocated, or whether openings were added or modified for better ventilation.

Structural Framing

Wood framing is visible at the partial basement/crawl space and at unfinished areas of the attic (used for storage). Much of the framing appears to be original, with additional members provided for structural reinforcement where necessary, such as at the house dividing line. According to TGHS records, additional ceiling joists were installed during the restoration at the second floor level, lowering the original 11-foot ceiling height in the Parlor and Doctor's Office by 8 inches. Because the house had undergone many changes over the years to finish out the second floor level, and the structure was further weakened when divided for relocation, it was thought to be not sufficiently strong enough to carry the load, so the additional joists were added.

Based on the areas available for survey, the framing is in good condition. It is well-elevated from the ground and well-supported by concrete and CMU foundations. Lateral bracing of posts has been provided. Based on project records, it is unclear whether any seismic retrofits were considered at the time of restoration; based on our observations, no apparent retrofit measures have been installed.

Roofing and Flashings

The Doctors House roof is a complex combination of forms and slopes, including gables, dormers, a tower, and low-sloped shed roofs. All are covered with flat concrete roof tiles, most likely dating to the 1980 restoration. There have been some modifications to the roof over time, including the addition of a second dormer on the north elevation for the Master Bathroom, completed around 1902. At the time of relocation, it appears that the house had a deteriorated composition or asphalt shingle roof, which was most likely not original.

The existing concrete roof tiles are brown in color and have a textured surface to mimic wood shingles (which were most likely the original roof covering). The original spaced roof sheathing boards are still in place (visible in the attic) suggesting a shingle application. These boards have been covered over with contemporary plywood sheathing. This provides some rigidity in the roof diaphragm and provides for good attachment of the concrete roof tiles, which are nailed through the sheathing. There is a waterproof membrane underneath the roof tiles (product unknown) which provides a weatherproof barrier (a requirement for concrete roof tile applications). Painted sheet metal flashings are used throughout, including valley, edge, and wall flashings, and flashings at roof penetrations. In many cases, the flashings are surface-applied with fasteners and rely on sealant joints rather than the more traditional through-wall type flashings.

Concrete roof tiles at tower. (ARG, 2016)

Second dormer (at right) added circa 1902. (ARG, 2016)

Typical painted sheet metal wall flashing. Note screw fasteners and sealant joint. (ARG, 2016)

Heavy debris accumulation at southwest porch. (ARG, 2016)

Stains at southwest porch ceiling. (ARG, 2016)

In general, the roof and flashings are in good condition but require maintenance. According to TGHS staff, there are no known leaks into the house. The surfaces are soiled throughout, with heavy collections of leaves and debris, particularly at valleys and low-sloped roofs at porches. At the southwest porch, the debris is so thick that it has become trapped between and below the roof shingles, effectively damming the surface water and causing minor leaks and stains at the porch ceiling below. A few cracked and slipped tiles were noted at the south elevation over the Parlor and at the north elevation around the dormers.

At the east end gable, there is a large patch of darker colored roof tile. According to TGHS staff, this area was repaired in 2014 following a treatment to remove a nest of carpenter bees. The roof was repaired with attic stock (original tile); however, the existing roof tile, after years of exposure, has weathered to a lighter color. A similar carpenter bee treatment was conducted again in July 2016, incurring more damage to the tile and east end gable window sill.

Darker colored tile at east gable end. (ARG, 2016)

Cracked and loose tiles at south elevation adjacent to tower. (ARG, 2016)

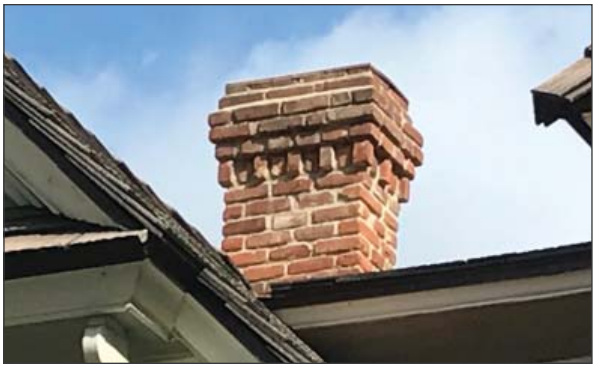
Sheet metal flashings appear to be in good condition overall. Some of the screw attachments appear to be loose, and there is some deflection at edges. Sealants are generally in place and in fair condition. In some areas, such as at the dormers, it appears that the flashing has been modified; remnants of sealant and fasteners remain at the face of the siding from the prior surface-applied flashing. At the attic storage area, an older section of galvanized sheet metal flashing was observed. It is corroded and deformed. It is unclear whether this flashing is still in service or was overlaid with other flashings or a waterproof membrane; further investigation may be warranted should leaks occur in the future.

The chimney is composed of red brick masonry. According to TGHS records, the original chimney was heavily damaged in a 1971 earthquake and subsequently demolished. For the 1980 restoration, the chimney was recreated using salvaged masonry, and the corbelled design was taken from an early photograph of the house. It appears to be in good condition. The fireplace is no longer used, and the flue has been capped with sheet metal flashing. Mortar washes are also provided at top surfaces of corbelled brick ledges for shedding of surface water.

Loose screw fasteners at metal flashing. (ARG, 2016)

Corroded sheet metal flashing, visible from attic storage area. (ARG, 2016)

Sheet metal flashing at dormers. Note sealant at wood siding, evidence of prior flashing installation. (ARG, 2016)



Brick masonry chimney. (ARG, 2016)

Wood siding and trim details at south elevation. (ARG, 2016)

Moon gates and spindle work at northeast porch. (ARG, 2016)

Wood decay and splits at base of shingles near roof surface. (ARG, 2016)

Wood Siding and Trim

There are various types of exterior wood siding found throughout the house, including horizontal lapped siding (predominant type, found at all elevations), vertical bead board siding (at the enclosed west porch and various detail areas), and horizontal and diagonal bead board siding (at detail areas). Bead board is also used for porch ceilings.

Wood trim is found throughout the house, including flat casing trim, such as at building corners, and turned and molded wood details, such as the moon-gates and spindles found at porches. All woodwork has been painted. According to TGHS records, all decorative woodwork was carefully dismantled, stripped, repaired and reassembled during the restoration. Exterior paint colors were matched to likely original colors found on boards in sealed off areas of the house.

Overall, the exterior wood siding and trim are in good condition, but some localized areas will require maintenance. There is some wood decay (rot), splitting, and peeling paint at the bottom edges of wood siding adjacent to roof surfaces. In other areas, there are gaps and separations between wood trim and between loose wood components with some splitting, peeling paint, and decay noted. This is particularly noticeable at the connection points between the bottom of the moon-gate arch and the horizontal railing.

Decorative railing components are somewhat loose and unreinforced, in particular at the long railing section at the northeast porch. These railings could be deflected to failure if leaned on heavily or put under too much strain. At the west end porch, there are vertical splits in the base of the bead board siding. The spoked wheel trim at the gable ends is anchored to the roof with bent plates and fasteners. There is some decay at the bottom near the roof surface; also, the wheel at the east end gable is poorly fit to the ridge line (large gap below) and may be loose. Further up-close inspection is necessary to confirm.

In general, siding surfaces are lightly soiled, with some insect nests (mud daubers, etc.) and bird guano noted. The base of siding at the northeast porch is buried in debris. Prior repairs were also observed, using sealant to cover holes and cracks in siding.

The entry steps at all three south-facing porches are generally sloped from front to rear (poor drainage). There are numerous splits in the wood treads, flooring and trim, as well as peeling paint and soiling. According to TGHS staff, water pools at the tread surfaces regularly. The wood is repaired and repainted at least twice a year, only to have the deterioration and stains return.

The porches have contemporary curved pipe handrails, painted with an aluminized paint. The materials and design are fine and unobtrusive to the historic character; however, TGHS reports that many guests have complained that the railing height at the kitchen entrance is too low for them.

Wood decay and separations at porch trim. (ARG, 2016)

Wood decay and ill-fitting, possibly loose, spoked wheel trim at east gable. (ARG, 2016)

Steps and pipe handrails at main entrance porch. (ARG, 2016)

Minor splits at window sash. Also note daylight between sash and frame. (ARG, 2016)

Deteriorated putty and separation in sash at south elevation bay windows. (ARG, 2016)

Large split at interior window sill, south elevation bay window. Also note dry/desiccated wood sash and stain loss. (ARG, 2016)

Windows and Doors

The existing windows of the Doctors House are original wood windows. Most are double-hung one-over-one configuration; the central gable at the south elevation contains two-over-two casement windows; the enclosed porch at the west end has sliding windows; and the northeast porch has pocket windows (referred as Gibb windows by TGHS) in which the sash slides upward into a pocket in the wall allowing for passage similar to a door opening. Most windows appear to date to the original construction; a window was added with the dormer at the Master Bathroom around 1902. Windows were also added when the west side porch was enclosed in 1908. Around 1930, the window in the second floor landing/ sewing nook was converted to a door when an exterior stair was added. This opening was reverted back to a window in the 1980 restoration. For the restoration, all the window frames and sash were retained, but the original glass was broken during the move and was replaced with modern glass.

Most windows are in good condition with only minor issues noted, including small splits in sash or trim, gaps between sash and frame (ill-fit), soiling and debris. However, the windows at the south elevation, in particular the bay windows, receive more sun exposure and are in fair condition. They have paint loss, deteriorated glazing putty, splits and dry/desiccated wood. The west window in the bay also appears to be slightly racked within the frame. Window hardware appears to be intact and complete; however, apart from one pocket window in the Doctor's Office, most are not opened by museum staff. Some are not operable and may have been painted shut. Simple pull-down shades are used for sun control in most areas of the house. The shades are in fair condition, and reportedly have been repaired numerous times. TGHS staff also noted that there are older UV films installed at the glass, but their effectiveness is minimal.

Most doors are original to the house and are wood stile-and-rail doors. Exterior doors typically have glass vision panels. The front door was not original and was replaced with an authentic Victorian-era door which was salvaged from a house in Monrovia, CA. According to TGHS records, this door is surprisingly similar to the original door and features stained glass panel borders in multiple colors. One other change from the original doors is the opening between the Parlor and Dining Room. This opening originally featured a sliding pocket door. It was removed during the 1908 Hunt-era remodeling, enlarging the wall opening.

Most exterior doors are in good condition, with a few minor repairs needed. The front door recessed panels have separated, leaving open gaps between the boards. The door to the west enclosed porch has multiple splits in the recessed panels and the lower rail, including peeling paint and minor decay. Interior doors are in good condition with very minor defects observed, such as surface abrasions to the stained or painted finish. Two of the interior doors (the door between Parlor and Doctor's Office and the door to the Doctor's Office Closet) do not close completely; the closet door also has a split near the knob.

The basement access door has a framed opening with a pair of wood hatch-type doors. The top surface is fairly low slope, and the head sits just under the drip edge of the house base trim. There does not appear to be any flashing at this location. The doors are in fair condition. There are separations between door boards, the painted surfaces are weathered, the hardware has minor surface corrosion, and debris collects in gaps around the door. TGHS staff reports that this door is poorly sealed, and large amounts of rainwater cascade down into the basement resulting in further damage (see "Foundation" section above).

Daylight seen through separations in recessed bead board panels at front door. (ARG, 2016)

Multiple splits and wood decay at door to west enclosed porch. (ARG, 2016)

Basement access door. (ARG, 2016)

Burgundy-stained fir floor at dining room, and green-stained pine floor at kitchen beyond (top left). Also note abrasion/ wear from foot traffic. (ARG, 2016)

Line of copper nails at floor in guest bedroom indicating where the house was divided for relocation. (ARG, 2016)

Splatter paint floor at second floor bathroom. (ARG, 2016)

Interior Floors

The interior wood floors within the house are original and include 2-inch wide, tongue-and-groove, fir floor boards in the finer public areas, such as the Parlor and Dining Room; and 6-inch wide tongue-and-groove pine floor boards in the Kitchen, Doctor's Office and Bedrooms.

Several changes occurred to the flooring over the years. In 1908, the fir floors were overlaid with oak flooring; a second layer of oak was installed some time later, possibly around 1920. These layers were removed during the restoration in order to reveal and restore the original flooring. This also proved beneficial in that the original floor retained marks from some items since removed, such as the original outline for the Parlor window seats. The restored floors were colored with a pigmented oil stain, in keeping with the Victorian-period fashion, and given a wax protective finish. Oil stain colors varied depending on the color scheme of the space; for example a burgundy color was used in the Parlor and Dining Room, and a green was used in the Kitchen and Pantry.

The Guest Bedroom on the first floor (now exhibit space) features the cut line in the floor showing where the house was divided. It was left in place for interpretive purposes. The Master Bathroom on the second floor is an anomaly within the house,and features a spatter paint finish in teal and creamy yellow; this marbleizing technique was quite common for the time. According to TGHC records, these colors were found in Harriet Beecher Stowe's residence, confirmed here by paint marks on the wooden floor under the toilet. The same colors were used to remodel the downstairs bathroom around the same time period the second floor bath was added; however this floor was restored to its original fir floors in the restoration.

The floors are generally in good condition. Period rugs and carpets are used throughout the house which relieve some wear in high traffic areas. In other areas, wear and abrasion of the stain finish was apparent. This is particularly noticeable at the main entrance, the Kitchen entrance, and the passage between the Dining Room and Kitchen. At areas where the rug has been covering the floor, the stain has a slightly duller finish, possibly due to less conditioning and polishing of the wax finish during cleaning. In some areas, the carpets and carpet pads have been affixed to the floors, leaving behind a heavy residue. In addition to wear from foot traffic, there are some minor abrasions from furniture. Also a floor board at the Master Bedroom is split due to the weight of the large chest of drawers resting on it. Prior repairs include a replacement board using a mismatched wood in the Kitchen, very minor fills at wood flooring in the Guest Bedroom/ Exhibit space, and infilling of joints between boards with a clear silicone sealant (performed in several rooms including the kitchen). This is visible in certain lighting conditions.

Abrasion/ wear of stained finish at entry vestibule floor. (ARG, 2016)

Carpet pad affixed to parlor floor with unknown adhesive. (ARG, 2016)

Abrasion/ wear of stained finish at kitchen entrance. Also note prior repair with mismatched wood. (ARG, 2016)

Split at floor board below chest of drawers in master bedroom. Also note stain color difference below carpet. (ARG, 2016)

Reproduction wallpaper and border at dining room. (ARG, 2016)

Painted bead board paneling at walls and ceiling of second floor bathroom. (ARG, 2016)

Interior Walls, Ceilings and Trim

The original walls and ceilings in the house were lath and plaster, and finished with either paint or wallpaper. Some spaces, such as the Pantry and first floor Bathroom, had bead board paneling. Wood trim included base boards, window and door casings, picture molding and other moldings; it was either painted or stained, depending on the room.

Over the years, the interiors of the Doctors House were remodeled many times, often overlaying new wallpapers over existing ones, or covering wallpapers or paneling with gypsum wallboard. During the restoration, much investigation was performed to locate original features and finishes. Scraps of existing original wallpaper were found in discrete areas for possible matching. In some cases, such as the Parlor and Dining Room, the wallpaper was specially fabricated to match original samples. In other cases, such as the Entry Vestibule or Doctor's Office, the papers and frieze borders were selected from available Victorian-era reproductions that best matched the colors and/or pattern that were there originally. The stained woodwork was stripped and repaired where needed; it was then coated with a pigmented oil stain (similar to the floors) and then protected with several coats of varnish. Second floor wall finishes were replaced with gypsum wallboard and painted the historic colors.

In general, the walls, ceilings and trim are in good condition. Some minor cracking and separations were noted between walls and trim, between walls and ceilings, and between wallboard panels within walls or ceilings. Some minor scuffs and abrasions were noted at walls and casing trim related to use (from furniture, etc.) Within the last two years, a leak occurred at the second floor attic space (associated with an air conditioning unit). The resulting stains and leak damage appear to have been repaired at the second floor level; however, some staining is still present at the Dining Room ceiling below. Surface soiling, cobwebs and insects were noted in several areas, such as the east end of the Play Room and the Utility Entry (enclosed porch entrance).

Separations between wall and trim at window casing in child's bedroom, second floor. (ARG, 2016)

Stains at dining room ceiling from previous leak. (ARG, 2016)

Soiling and cobwebs at utility room entrance. (ARG, 2016)

Tears and lifting of seams at dining room wallpaper. (ARG, 2016)

Color shift/ fade at dining room wallpaper. (ARG, 2016)

Wallpaper stains and wear/loss at stair handrail. (ARG, 2016)

Wallpaper conditions vary depending on the space. In most areas, they are intact with only minor tears, gouges or lifting of seams. The wallpaper in the Parlor and Dining Room exhibits a significant color shift related to fading from UV exposure; these two rooms have a strong southern exposure. The Stair Hall wallpaper is perhaps the most damaged from use over time. There are numerous tears, abrasions, and gouges, as well as stains around handrails. The paper is bubbling and partially detached from the substrate at one area. Many seams and edges are lifting from the substrate. There is evidence of prior handrail support bracket attachments. Also, velcro pads have been placed below corners of framed artwork, some of which are no longer in use.

Gouge at stair hall wallpaper. (ARG, 2016)

Velcro adhesive at stair hall wallpaper. (ARG, 2016)

Fixtures and Hardware

Most light fixtures are not original to the house and were installed during the 1980 restoration. The Master Bathroom sconce is the only exception; this original fixture dates to the 1908 renovation. The others are authenticated antique fixtures, determined to have been in use prior to 1902, and re-wired for contemporary needs. The fixtures include chandeliers and wall sconces in various forms and finishes with various types of glass shades. Other contemporary lighting has been installed in a few areas, such as the spot lights for the exhibit case in the Master Bedroom. All light fixtures are operable and in good condition, with only minor surface soiling and oxidation noted at the metal surfaces. Soiling and oxidation are heavier at at exterior sconces.

Original wall sconce at master bathroom. (ARG, 2016)

Antique lighting at dining room, installed during restoration. (ARG, 2016)

Exterior wall sconce. Note heavy soiling/ guano and oxidation of bronze surfaces. (ARG, 2016)

Contemporary lighting for master bedroom exhibit case. (ARG, 2016)

Bathtub at first floor bathroom. (ARG, 2016)

Toilet and lavatory in first floor bathroom. (ARG, 2016)

Enameled cast iron kitchen sink, set in reproduction cabinet. (ARG, 2016)

Most plumbing fixtures are not original to the house, but are refurbished antiques which have been determined to have been in use prior to 1902. One exception is the bath tub at the first floor bathroom which dates to around 1900 and was in the house prior to relocation. It replaced an earlier tub, evidenced by markings found on the floor. Other items, such as the wash basins, water closet bowls and tanks, etc. are antiques that were representative of the period and best-fitted the markings found on floors or wall paneling. Plumbing fixtures for the accessible restroom are contemporary. The kitchen sink is enameled cast iron and was found in the house, dating to the 1908 Hunt-era remodeling. It was placed in a reproduction cabinet fitting the dimensions of markings found on the floor.

The stove is an 1896 Imperial Clarion cast iron stove. It is also antique and fits markings on the floor from the original stove and hole for the flue. The house also had a boiler, installed most likely pre-1908 based on holes cut through original floors. All of the fixtures are in good condition. The bathroom toilets and sinks have been refurbished to working order. The kitchen sink is purely for interpretation but the drain functions.

Most hardware is original to the house, including door and window hardware, push-button electric switches, and the mechanical doorbell. The speaking tube (an early intercom system) is an antique determined to have been in use prior to 1902 and was installed in what was reportedly the original location. The system carried conversation between the Pantry and the Master Bedroom upstairs. All hardware and systems appear to be in good condition, with only minor soiling and wear noted.

Imperial Clarion cast iron stove. (ARG, 2016)

Brass push-button switch plate. (ARG, 2016)

Dolls and other collection items at child's playroom. (ARG, 2016)

Decoratively painted cast iron mantel. (ARG, 2016)

Furnishings and Collections

The furnishings and collections within the Doctors House are, for the most part, not original. There are a few items that belonged to the Doctors' families; otherwise most are verified antiques that were either acquired or donated to TGHS. The house has been meticulously curated throughout with Victorian-period items, and museum staff have documented and maintained them very well.

Some items, such as the Parlor window seats, were re-created during the restoration based on oral history and found evidence (markings on floor or wall). Others were selected to match dimensions of original pieces now gone, such as the period carpets which match the size and placement of original carpets that were tacked to the floor.

The fireplace mantel is one item that was found in the house prior to the move. It has reportedly been in the house since at least 1920 and dates to around 1900. It is cast iron and painted with a marbleized effect to simulate stone. The hearth tile was replicated to match the original tile, which was found under two overlays of later tile.

Building Systems

Existing building systems most likely date to the 1980 restoration work. A complete survey of these systems was not performed for this report. According to TGHS staff, a new HVAC unit was installed in the attic space in 2014. At that time, the thermostat was upgraded with lock-out settings to prevent tampering, and the temperature was set to a constant 68 degrees. However, staff notes that there is often a temperature rise of 15-20 degrees at the second floor rooms, which can be uncomfortable for tours and can negatively impact the collections over time. Some insulation was noted in the attic walls, but this is not a consistent treatment throughout.

The existing electrical panel is located in the basement, and serves both the house and gazebo. TGHS staff noted that the panel is old and prone to overload when two or more appliances are used at the Gazebo. They consulted a city electrician who stated a hesitance to install a higher rated fuse in the existing panel for fear of wires melting or fusing together. The existing system hampers the ability to host events, such as wedding receptions, when there is a higher power demand.

There are several outdoor outlets and conduit around the exterior of the house. TGHS staff noted that many are impacted by irrigation water or debris and cannot be used.

Insulation at attic wall. (ARG, 2016)

Outdoor junction box at northeast porch, partially buried by debris. (ARG, 2016)

The Gazebo. (ARG, 2016)

Gazebo

Description

The gazebo is sited in the lawn to the southwest of the Doctors House. It is octagon-shaped in plan, with a raised platform and steps leading down to the lawn from three sides; the northeast side has an accessible entrance with the path leading back toward the Doctors House. It is a wood-framed structure, similar in woodwork design to the Doctors House, featuring “moon-gate” openings, turned spindles and articulated columns. The roof slopes up to a central raised monitor, also octagon-shaped, with turned spindles in the clerestory openings. The roof of the monitor features a central octagon-shaped finial clad with copper sheet metal. The gazebo and monitor roofs are covered with concrete roof tiles, similar to the house.

Quarry tile paving and central plaque. (ARG, 2016)

Quarry tile steps, stucco parge coating at risers, and copper tube handrails. (ARG, 2016)

Accessible entrance. Also note wall sconces at columns. (ARG, 2016)

The floor platform and steps are paved with rectangular quarry tile, set in a radiating pattern with herringbone infill to accentuate the octagon shape. The foundation is unknown, but is most likely a concrete slab on grade. The exterior face of the foundation wall and step risers are covered with a painted stucco parge coating. There are copper tube handrails at each side of the steps. Lighting has been provided in the form of eight single down-light sconces, positioned at the columns, and a central six-downlight chandelier suspended from the ceiling. All fixtures have a copper alloy finish and bell-shaped glass shades. There are plaques positioned around the gazebo with names of donors, and a central plaque set in the pavers which reads: “Donated to the City of Glendale by the Glendale Historical Society 1999”, suggesting it was constructed around that year. The plaques are a white metal, possibly zinc.

Central chandelier. (ARG, 2016)

Existing Conditions

Overall, the gazebo is in good condition. It appears to be structurally sound. The spindled woodwork, comprising the railings on four sides of the structure, is somewhat loose at the joints and easily deflected. The columns are approximately 8-feet apart, which is a long span for unreinforced railings, and they could be deflected to failure if leaned on heavily or put under too much strain. In general, the woodwork is in good condition, with some problem areas observed. The columns have some wood decay and peeling paint at their base. They are slightly raised from the platform (good for drainage) but any standing water or splashback over time has led to some decay (wood rot). One column base appears to have been previously repaired with wood dutchmen, most likely due to prior decay problems.

Other previous repairs were noted on the south side railing, where components have been re-nailed together and wood fills were added at decayed spindle and railing trim. These fills have deteriorated and begun to spall away from the wood substrate. In many areas throughout, the railing woodwork is separated and loose at the joins, with some minor splits, peeling paint, and decay observed. This is particularly noticeable at areas where surface water can collect, enter open joints and lead to decay, such as at the connection points between the bottom of the moon-gate arch and the horizontal railing. Other issues include corroded ferrous fasteners, which cause stains and splitting of wood, and surface soiling from birds, weathering, and use over time (tape residue, etc.)

Decay, splitting, and peeling paint at base of column. (ARG, 2016)

Separations and loose components, soiling and decay at railing. (ARG, 2016)

Deteriorated/ spalling prior wood fill repairs. (ARG, 2016)

Copper sheet metal-clad finial. (ARG, 2016)

Soil sedimentation at southeast steps. (ARG, 2016)

The roof framing, board ceiling, and roof components all appear to be in good condition. The concrete roof tiles are intact, with only surface soiling and debris noted. The finial is in good condition overall; there is some separation of wood components and minor surface soiling/streaking of the copper patina.

The quarry tile paving is in good condition overall. There are some localized stains, such as candle wax drips and grout residue, at tile surfaces. Grout joints are in good condition, with very minor areas of missing or eroded grout observed. The sealant joint around the central plaque is deteriorated. There is also a chipped area of tile at the southeast steps. At the east side of the structure, between the ADA entrance and the steps, the ground has eroded and re-deposited, resulting in partial burial of the southeast steps. At the time of survey, standing water was noted in this area, as well as the southwest steps, where drainage is poor. In these areas, step and foundation wall surfaces are more heavily soiled and biological growth was noted, particularly at the parge coating.

The copper tube handrails are generally in good condition. Some oxidation (green corrosion product) was noted at tube intersections, such as handrail to post connections. Some fasteners were missing, and others were corroded (appear to be incompatible metals). The north handrail at the northwest steps has been damaged; the post is no longer upright and the railing leans at an odd angle. The posts are generally anchored directly into the ground; in one location, a concrete footing was provided.

The light fixtures appear to be intact and operational. Their surfaces are soiled, and some minor oxidation was noted at the metal finish. As stated previously, the existing electrical panel serving the Gazebo is located in the basement of the Doctors House. TGHS staff noted that the panel is old and prone to overload when two or more appliances are used at the Gazebo. This makes hosting events, such as wedding receptions, more difficult. Often, a 100-ft extension cord is run from the house over to the gazebo to provide a second outlet.

Oxidation at copper tubing. (ARG, 2016)

Outdoor electrical outlets. (ARG, 2016)

Doctors House details. (ARG, 2016)

Treatment Recommendations

The following architectural treatment recommendations have been provided for The Doctors House Museum and Gazebo. The recommendations are based on deficiencies noted in the previous section, and have been broadly grouped into the following categories: Foundation, roofing and flashings, wood siding and trim, windows and doors, handrails and exterior fixtures, interior finishes, structural framing, building systems, pest control, and other miscellaneous items. Where possible, additional discussion on less common materials has been provided. See the following Treatment Recommendations Summary for a prioritized list of all treatments and their associated costs.

The Doctors House and Gazebo are in good condition overall. Most of the deficiencies noted in the previous section relate to general maintenance items and minor deficiencies that, if repaired in the short term, will prolong the life of the materials and prevent further damage in the future or more costly interventions. Exterior maintenance recommendations, in particular, will halt or prevent further ingress of moisture into the material systems, deterring potential leaks and preventing further material deterioration or decay.

Foundation

The Doctors House basement stair and access door are poorly sealed and allow large amounts of water into the basement during rain events. The stair walls are affected by efflorescence, and the storage area is prone to dampness and mold. We recommend providing new flashing at the basement door opening, and upgrading the poorly sealed wooden access doors to painted metal doors, or other similar water-tight assembly. Additionally, we recommend excavating the basement stair foundation walls and adjacent house foundation wall, and installing (or replacing the) below-grade waterproofing to prevent ingress of moisture through the CMU units.

The salvaged brick masonry at the Doctors House foundation walls requires some minor repair. There is cracking at mortar joints, in particular at the south elevation and the stair walls. These can be repaired by repointing the joints with new mortar. The existing mortar should be analyzed to determine the constituents and proportions of the mix so that the new mortar will match. The existing eroded brick units are not as much of a problem, but could be replaced for a more uniform appearance using remaining salvaged bricks.

The gazebo foundation and patio will require some maintenance work. The quarry tile paving should be cleaned, and the deteriorated or missing areas of grout joints should be repointed. New sealant should also be installed around the central plaque. Around the sides of the structure, the existing parge coating should be cleaned and repainted. Also, at the east side and southeast steps, some re-grading is necessary to excavate buried steps and direct water around the structure.

Roofing and Flashings

The concrete tile roofs remain in good condition overall, but will require some repair. Several cracked and loose tiles were noted, which will require more immediate repair to prevent possible leaks. Also, the heavy debris accumulations are trapping and damming water in the roof system and, in some cases, causing small leaks, such as at the southwest porch. Broken roof tiles can be replaced in kind using remaining attic stock. If sufficient amounts cannot be found for replacements, a similar size and texture may be available from roofing manufacturers. The exact color may not match, but this can be addressed in other ways (see following page).

The accumulated debris should be removed from roofs on a regular basis, ideally a minimum of twice per year, or more depending on the amount of debris collected. Annual trimming of overhanging tree branches will also help to curtail how much debris falls on the roofs. Due to the amount of debris observed, in particular at low-sloped house porches, this first cleaning will likely require more labor than simply blowing or sweeping debris from the roof. The edges of the tiles must be lifted in order to remove the debris that is trapped below.

In order to address the different colors of roof tile used on house, as well as mask any other future repairs, the entire roof can be coated with a special colorant that will renew the surface and visually blend these areas. The tile surfaces must first be cleaned prior to coating. We also recommend a biocidal treatment (10-15% dilute bleach solution) to help remove soiling and biological growth. The tiles can then be coated with a high quality acrylic sealant that is specially formulated for concrete tile. It will seal the tile surfaces, helping to keep them cleaner longer, and will tint everything the same color. This is a penetrating color coat product, not a typical paint. We recommend performing this same scope of work at the Gazebo in order to maintain the roof and have the roof be similar in color to the house.

The existing concrete roof tiles have many years of service life left; the life expectancy for these roofs is typically marketed at 50 years, and some can last even longer. In general, good performance depends more on how well the underlayments and flashings were installed and have been maintained, rather than the tile itself. These materials will typically not last as long as the tiles. We recommend that you perform regular visual inspections after rainstorms, etc. and address any leaks promptly when they occur, repairing or replacing flashings as required. Also, the sealant materials used at wall flashings are currently in good condition, but these may also require replacement in the near future. Should you wish to replace the roof in the years ahead, we recommend that you consider a fire-retardant cedar shingle roof, which will be a more historically accurate roof system for the house.

The Gazebo roof should be similarly maintained and inspected regularly. We also recommend cleaning and applying a protective wax coating over the copper sheet metal finial.

Wood Siding and Trim

The exterior wood siding and trim is generally in good condition, but there are areas that require repair. Splits in wood members, separations between wood components, failed prior repairs, and peeling paint all leave easy entry points for water to get into the wood and the decay process to begin. Some minor decay was noted, in particular at the base of siding adjacent to roof surfaces and at some areas of the porch and gazebo railings. The best preventive treatment is to close up any openings and maintain paint coatings. Splits and separations can be filled with a wood-compatible epoxy filler product, and paint coatings can be touched up.

Entry porch steps are deteriorated due to water pooling at tread surfaces and poor drainage. Previous repairs to splits in wood and peeling paint have not addressed the cause and the problem reocurrs. The steps must be re-framed, or the treads otherwise shimmed, in order to provide proper drainage. Several treads may also require replacement due to heavy damage. Other splits and separations can be repaired with epoxy filler, and the porches repainted.

Windows and Doors

Most windows and exterior doors are in good condition and require only cleaning; the windows and doors at the south elevation and a few window locations at the north elevation require some basic maintenance. Any splits and separations in the wood members should be filled with a wood-compatible epoxy filler. Deteriorated and/or missing glazing putty should be replaced, and paint or stain surfaces should be touched-up.

Also recommended, as an upgrade, is to replace the aging UV films at the window and door glass with modern clear UV-blocking films. These films are removable, and will aid in preventing irreversible UV damage to interior collections and finishes, such as wallpapers. For additional UV protection, the existing shades should be replaced with custom UV-blocking pull-down shades. We would also recommend installing simple weatherstripping at exterior door and window openings. Again, these changes are reversible, and will help prevent leaks and drafts.

Handrails and Exterior Fixtures

The decorative wood railings at both the Doctors House and Gazebo, in particular the longer span sections, require additional structural reinforcement. Some further study is necessary to determine the best methods. This intervention should be accomplished in a sensitive and visually unbostrusive manner, perhaps by using concealed anchors or fiberglass rods set in hollowed out sections of the railing, with the rods covered with wood filler and painted to mask the intervention. The rods would provide additional structural support, particularly if the railings are deflected by someone leaning on them. A structural engineer should be consulted when designing this retrofit.

The contemporary pipe handrails at both the house and gazebo also require some repair. The mounting height of the painted steel pipe handrails, in particular at the kitchen porch, should be verified as to whether they meet current code and then adjusted accordingly. At the Gazebo, the mounting heights of the copper pipe handrails should also be verified, and the handrail at the northwest side should be removed and reset, or otherwise repaired, to match the others in height and angle (this is a safety concern to prevent falling). Copper railings should be cleaned, green corrosion products removed, and the surfaces coated with a protective lacquer. Missing, corroded, and mismatched metal fasteners should be replaced with bronze or copper alloy screws. We also recommend, as an upgrade, providing similar concrete post footings at the handrail posts that are currently mounted directly into the ground.

Exterior light fixtures at both the house and gazebo should be cleaned to remove soiling and any oxidation or corrosion products. We also recommend applying a protective lacquer coating on the metal surfaces.

Interior Finishes

Interior finishes, fixtures and collections within the Doctors House are in good condition overall. The deficiencies noted in the previous section relate more to wear and use over time than any material decay or deterioration issue. They are largely cosmetic concerns, and the following recommended repairs are considered to be of lower priority.

Localized repairs are recommended for existing wood flooring, including careful hand-removal of silicone sealant installed at tongue-and-groove joints, filling of splits or separations with a wood-compatible epoxy filler, and visual integration of worn and abraded finish areas with matching pigmented oil stains. We also recommend re-applying the wax coating and polishing of all wood flooring surfaces. Rugs, carpets and other protective floor mats should continue to be used at high traffic areas. You might also consider clear vinyl carpet protectors at high traffic areas for additional protection of antique carpets, or protection through other means such as re-directing traffic, using reproductions and storing originals, or rotating carpets from display to limit wear.

Splits and separations in interior wood doors and trim can be filled with wood-compatible epoxy fillers. These fillers are easily painted, or can be pigmented to visually blend the repair at stained finishes. Cracks and separations between trim and plaster or gypsum board wall finishes should be filled with a polyurethane sealant or similar product, and overpainted. Abrasions and chipped areas of paint or stain should be touched up. Interior doors, such as the Doctor's Office doors, should be adjusted for better operability.

Wallpaper deficiencies, including tears, gouges, detached areas, and lifting seams, can be repaired in-situ by a conservator. Paper conservation treatments can include surface cleaning and stain removal; mending of tears, gouges and voids; reattaching and flattening lifted seams and bubbled areas; and in-painting to visually integrate repairs. We recommend performing these repairs at existing wallpapers, in particular the stair hall and dining room. The color fade associated with UV damage is, unfortunately, irreversible. However, this paper was fabricated new at the time of restoration and could be replaced similarly in the future. In fact, according to TGHS records, a New York-based firm replicated the paper and made the design available for purchase. It may still be in production, or there may be sufficient attic stock available.

Structural Framing

Based on our survey of available areas within the attic and crawl space, we did not find any conditions that would warrant immediate repair or structural stabilization. It is unknown at this time if any seismic mitigation has been performed. We did not observe any seismic retrofit measures, such as positive connections between roof and walls and between walls and foundations. The chimney may also require cable anchorage to prevent toppling in a seismic event. Therefore, we recommend engaging the services of a qualified structural engineer who is familiar with historic structures and has experience with retrofitting of historically sensitive properties. They can provide a seismic analysis (ASCE 41 Tier 1 and possibly Tier 2 evaluation) along with recommendations and cost estimates for any retrofit measures that may be needed.

Building Systems

The existing single HVAC system at the house was updated recently, but it has difficulty maintaining a constant climate between the two floors. This can be uncomfortable for visitors and can result in premature aging of the collections. The existing system should be modified or supplemented, perhaps with an additional split system at the second floor, in order to provide consistent and reliable temperature and humidity control in keeping with the museum-quality environment. Other upgrades can be performed to help attain consistent climate, such as insulation at attic walls and below roof framing. Systems can also be retrofitted to provide automatic email or text alerts to staff when interior environments fall outside of a specified range.

The existing electrical system for the house and gazebo are undersized and outdated for current needs, in particular for when hosting events. Electrical wiring in contemporary spaces, such as the service kitchen, is old; there is also no gas service to the kitchen. Both of these hinder or prevent future upgrades to fixtures and appliances. Other areas such as outdoor outlets are damaged or impacted by water and debris. We recommend upgrading the existing main electrical panel and fuses to meet higher power demands, repairing or replacing outdoor GFCI outlets as required, and replacing aging wiring as updates are made. For the service kitchen, we also recommend running a new gas line to the house.

Pest Control

Pest control has been an ever-present issue at the Doctors House. The materials have been damaged by insect infestation, such as carpenter bees. To our knowledge, there is no recurring inspection or treatment and the materials go unchecked for long periods of time. We recommend taking a more proactive approach to pest control at the Doctors House, treating for insects and pests before they become an issue. We recommend engaging the services of a professional extermination firm with experience in treating historic buildings who can regularly inspect and treat the house for an array of pests. The carpenter bee-affected area can be sprayed with a topical insecticide during certain months of the year to prevent them from returning. Also, as a preventive measure, the unpainted wood materials in the crawl space areas near ground level can be treated with a surface-applied preservative to ward against termites. We also recommend removing loose wood materials from the basement crawl space which could attract termites. If, after inspection, termite activity is found, tenting and fumigation can be a useful method for eradication.

Miscellaneous

The following recommendations relate to administrative efforts at the Doctors House Museum.

First, we recommend that TGHS digitize their records for safekeeping and future research needs. These can include, but are not limited to the following: Historical research and photographs of the house and its occupants, documentation related to the relocation and restoration work, TGHS newsletters and events, administrative and emergency plans, staff training manuals, museum acquisitions records, conditions assessments and treatment reports, and house repair and maintenance records.

Second, we urge you to nominate the Doctors House to be listed on the National Register of Historic Places so that it can be recognized at the state and federal levels. The Doctors House is one of the last remaining Queen Anne/Eastlake houses in the City, one of the few remaining homes that pre-date 1910 in the area, and is representative of an important early phase in the history of Glendale. There is a common misconception that, once a structure has been moved and its original context has changed, it can no longer be considered for nomination. However, under National Register Criteria Consideration B, “A building or structure removed from its original location, but which is primarily significant for architectural vaule, or which is the surviving structure most importantly associated with a historic person or event” does meet the criteria. Properties listed on the National Register of Historic Places are automatically listed on the California Register of Historical Resources.

Treatment Summary: Doctors House

High Priority (Year 1)	Medium Priority (Year 2-3)	Low Priority and Upgrades (Year 3-5)
	Roofing and Flashings	
Replace cracked roof tiles	Seal/color coat roof tiles	
Remove debris, clean roof tiles, biocide treatment	Replace sealant at flashings, adjust fasteners and paint	
Trim overhanging tree limbs		
	Foundation	
Below-grade waterproofing at basement stair	Further Investigation: Mortar Analysis	Replace basement doors with painted metal doors or similar water-tight assembly
New flashing at basement access door opening	Repoint cracks at brick joints w/matching mortar (based on analysis)	
	Replace damaged or eroded brick units w/matching or salvaged units	
	Wood Siding and Trim	
Re-frame and repair entry steps, and replace treads where damaged at three porches	Clean exterior (light pressure wash)	
	Wood-compatible epoxy fill repairs	
	Touch-up painting	
	Windows and Doors	
Reglaze south-facing wood windows	Reglaze remainder of wood windows	Re-adjust interior doors for operability
Exterior touch-up painting and staining at south-facing windows and doors	Exterior touch-up painting and staining at remainder of windows and doors	Re-adjust wood windows, make operable
Wood-compatible epoxy fill repairs at south-facing windows and doors	Wood-compatible epoxy fill repairs at remainder of windows and doors	Wood-compatible epoxy fill repairs at interior wood windows and doors
Install new weatherstripping at windows and doors		Interior touch-up painting and staining
		Replace old glass films at windows and doors with modern clear UV-blocking films
		Replace existing shades with custom UV-blocking pull-down shades
	Handrails and Fixtures	
Further Investigation: Study options/details for structural strengthening	Clean exterior wall sconces, apply protective lacquer coating on metalwork	
Structurally strengthen wood railings (based on results of further study)		
Verify mounting heights of pipe handrails, and reset accordingly to meet building code		
	Interior Finishes	
	Wood-compatible epoxy fill repair at wood flooring, remove old fills	Polyurethane sealant fills at interior wall and trim separations
	Hand remove silicone sealant from joints in interior wood floors	Wood-compatible epoxy fill repairs at interior trim
	Visual integration of pigmented oil stain at abrasions in flooring	Touch-up painting and staining of interior trim
	Renew wax coating at wood floors and polish	
	Wallpaper repairs (by conservator)	
	Structural Framing	
		Further Investigation: Structural/ seismic analysis to investigate retrofits
	Building Systems	
Upgrade/ supplement HVAC system to provide consistent temperature and humidity control		Install insulation at undersides of roof and attic walls
Upgrade main electrical panel and fuses to meet higher power demands		Provide new gas line to kitchen
Upgrade exterior electrical wiring and GFCI outlets		
	Pest Control	
Carpenter Bee Treatment	(See Annual Maintenance)	(See Annual Maintenance)
Pest inspection/treatment		
Remove loose wood from crawl space		
	Other	
Nominate to the National Register of Historic Places	Digitize TGHS records	

Treatment Summary: Gazebo

High Priority (Year 1)	Medium Priority (Year 2-3)	Low Priority (Year 3-5)
	Roofing and Flashings	
Remove debris, clean roof tiles, biocide treatment	Seal/color coat roof tiles	
Trim overhanging tree limbs	Clean/ protective wax coat at copper finial	
	Foundation	
	Clean paving and foundation walls (light pressure wash)	Re-grade at east side and southeast steps
	Clean and repaint parge coating	
	Repoint deteriorated/missing grout at paving	
	New sealant around plaque	
	Wood Framing and Trim	
	Clean exterior (light pressure wash)	
	Wood-compatible epoxy fill repairs at wood trim, remove old fills	
	Touch-up painting	
	Handrails and Fixtures	
Verify mounting heights of pipe handrails, and reset accordingly to meet building code	Clean exterior wall sconces, apply protective lacquer coating on metalwork	Provide concrete post footing at handrails
Remove/reset copper handrail at NW side	Clean/ protective lacquer coat at copper handrails	
Further Investigation: Study options/details for structural strengthening		
Structurally strengthen wood railings (based on results of further study)		
	Structural Framing	
		Further Investigation: Structural/ seismic analysis to investigate retrofits
	Building Systems	
Upgrade electrical wiring and GFCI outlets		
	Pest Control	
Pest inspection/treatment	(See Annual Maintenance)	(See Annual Maintenance)

Maintenance Recomendations

The following are maintenance recommendations for The Doctors House and Gazebo:

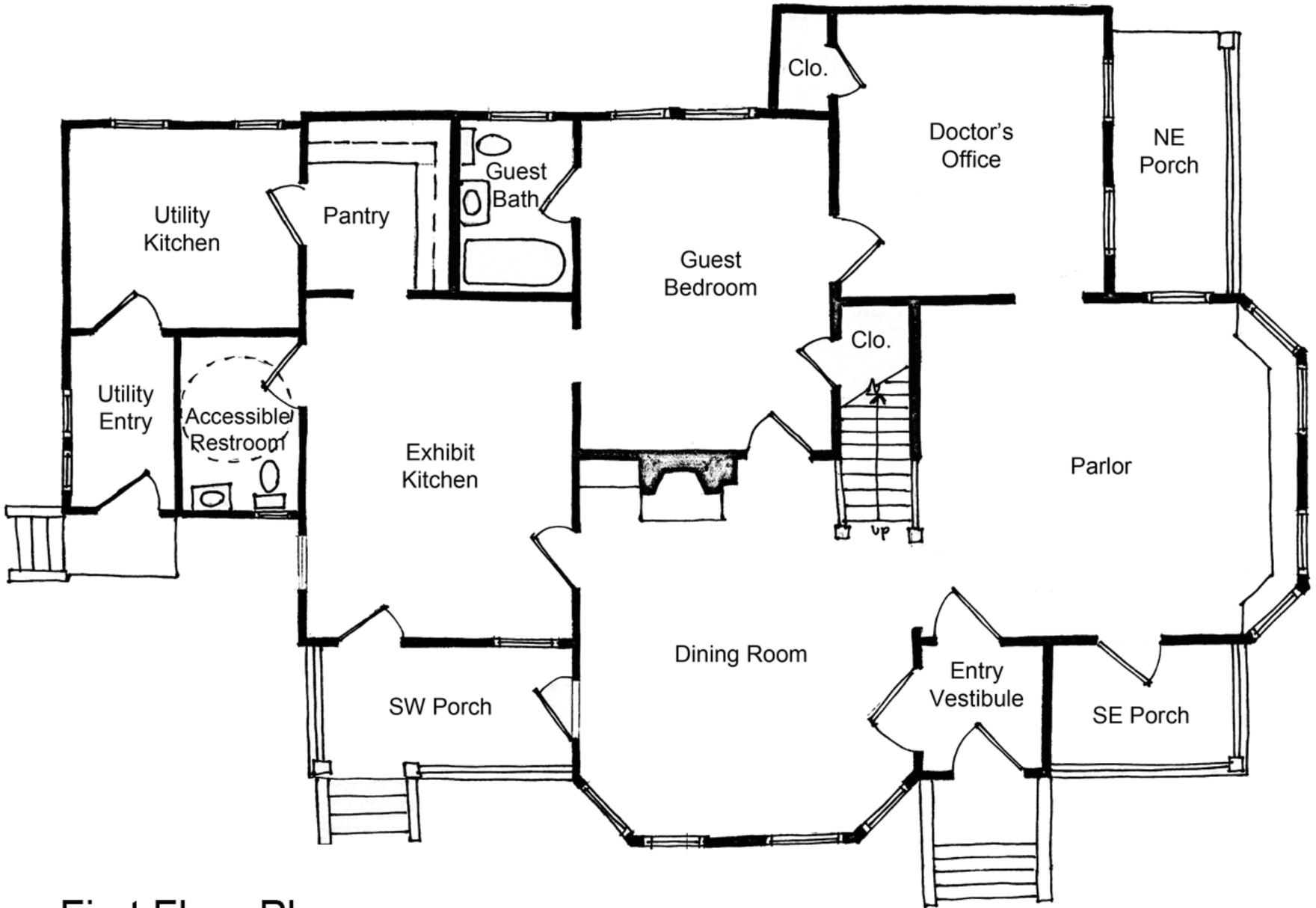
- Inspect roofs for damage annually, and after periods of high winds, hail, heavy rains or earthquakes. Repair as required. Address any leaks promptly when they occur.
- Remove debris from roofs and drainage structures a minimum of twice per year, or more often as needed depending on the amount of debris being collected.
- Trim overhanging tree limbs and maintain separation distance between ground/ vegetation and wood siding. Monitor irrigation and re-direct sprinklers away from structures.
- Perform pest control inspections annually, and treat as required. Inspect and treat for carpenter bees seasonally.
- Inspect woodwork annually for damage or deterioration. Repair as required and touch-up paint.
- Annually, clean wood siding and trim with light duty pressure wash.
- Annually, clean brick paving and hardscape with light duty pressure wash.
- Inspect pipe handrails annually for loose connections, wear or damage, and repair as required.
- Perform broom cleaning and occasional damp mopping of hardwood floors.
- Perform occasional dry dusting and vacuuming of interior finishes and collections.
- Monitor conditions of collections in storage and on display. Rotate exhibited items as required to minimize damage or exposure, in particular light-sensitive items such as textiles.
- Monitor temperature and humidity within the House regularly, and adjust systems when interior environments fall outside of a specified range.

Doctors House Museum (ARG, 2016)

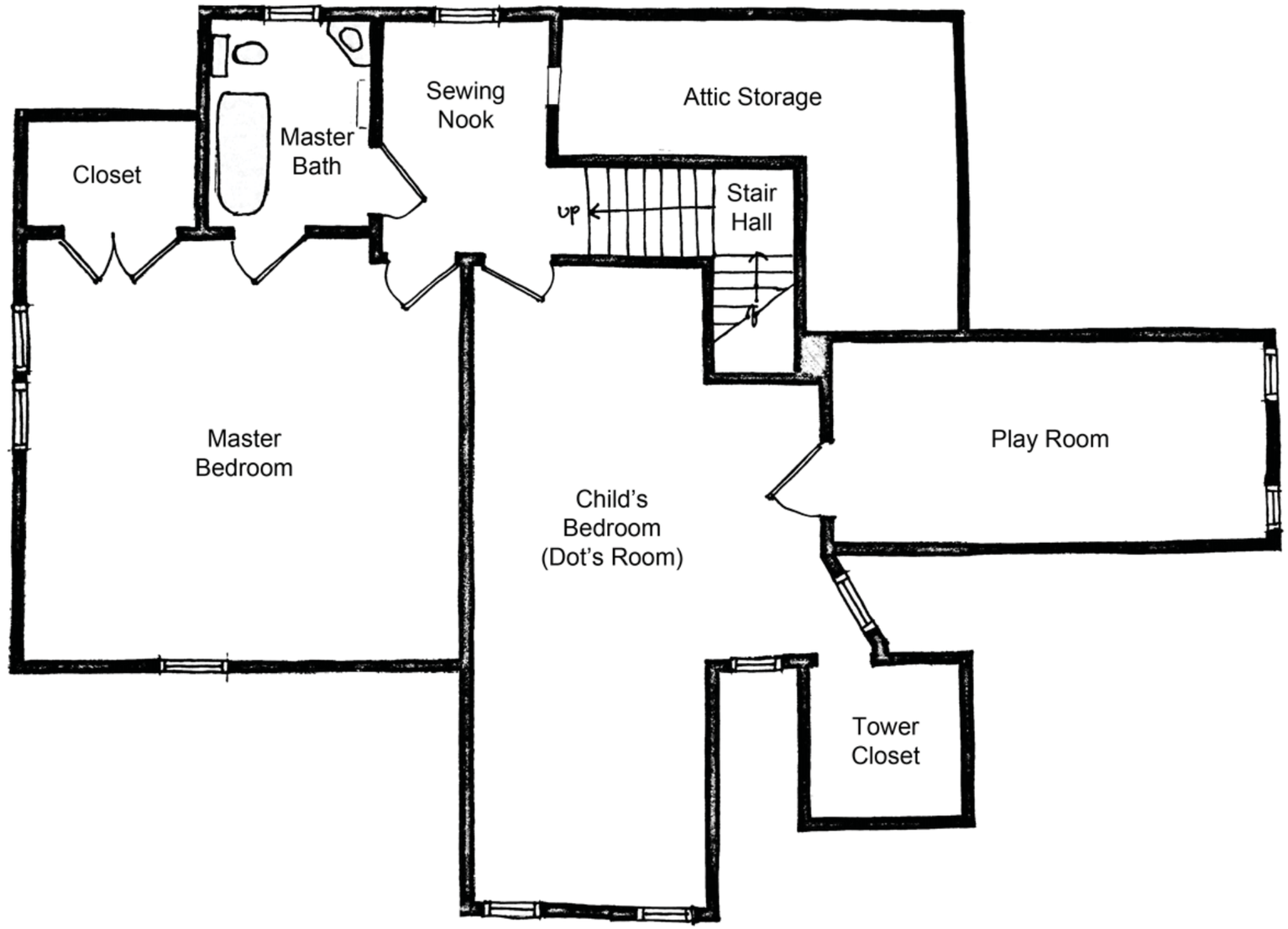
Appendix

Floor Plans

Cost Estimate



First Floor Plan



Second Floor Plan

Wednesday, February 15, 2017

KPJ Consulting

Conditions Assessment Report

Doctor House & Museum

Glendale, California

for

Architectural Resources Group, Inc.

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AT A GLANCE

This Cost Plan Report

This report has been prepared to help establish, review and manage a realistic project scope, budget and cost. This report should be reviewed, revised and updated as the project progresses closer to bidding and construction.

This is a measured approximate-quantities cost plan based on study and some assumptions have been made - it has not been prepared on a simple dollars-per-square-foot basis. The content and purpose of this cost plan should be treated accordingly and reviewed as the documents, program and design progress. Assumptions and recommendations should be carefully checked.

This report is based on a Design Bid Build contract and sub trade bidding to several sub contractors. 'Small local, hands-on' general contractors (i.e. the site carpenter may also be the supervisor and general contractor) may be more competitive than other general contractors with higher off-site costs and employed supervisors. Contractors' responses to documents, designs and programs will vary - as they must assess the market, prices and workload. This Cost Plan Report is to help you establish a 'fair' price. Actual Bid prices can be expected to vary. This Cost Plan Report is to help you establish a 'fair' price. Actual Bid prices can be expected to vary. Slicing and dicing projects will impact G.C. Overhead & Profits; will thereby change overall construction prices. This opinion of the probable cost of construction is made on the basis of the experience, qualifications, and best judgment of a professional consultant familiar with the construction industry. However, KPJ Consulting cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from this or subsequent cost estimates.

Note: No allowance is included for potential costs or savings for adopting a negotiated contract, for using a Construction Management Contract, the use of non-traditional forms of procurement, the need for an accelerated program or for the potential reduced competition by bidding to one general contractor only.

Scope of Cost Plan

The scope of work is based on Conditions Assessment Report and Quantities of repairs prepared by ARG dated 2.15.17.

Specific Inclusions - PC Allowances, Provisional & other allowances

Multi-phasing for Museum and Gazebo repairs will be required.

Assumptions made in the Cost Plan

This cost plan was prepared under the following assumptions:

1. Competitive Design-Bid-Build procurement will be utilized with 4 or more general contractors.
2. Phasing will be required.
3. Work can take place during normal and off business hours.
4. Prevailing Wage labor rate structure.
5. All repair/ replacement is a "guess-timate" at this point, and will change during construction after more of the deterioration is revealed.
6. All the retrofit work will be done from the exterior.

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Phasing Plan and Schedule

1. High (denotes H) Priority includes items of high or immediate need, or necessary repairs. To be completed in Year 1.
2. Medium (denotes M) Priority includes items of moderate repair need and maintenance items. To be completed in Years 2-3.
3. Low (denotes L) Priority includes items of low repair need and cosmetic concerns. To be completed in Years 3-5.

Exclusions

Costs for the following items are excluded from this report. These items should be considered, checked and confirmed during

1. Professional design and consulting fees.
2. General building permit including plans and permits for fire alarm system unless noted.
3. Testing fees.
4. Owner's field inspection costs.
5. Construction / project manager's fees.
6. Plan check fees and building permit fees unless noted.
7. Furnishings, fixtures and equipment (FF&E) / Group II.
8. Owner-furnished items.
9. Building signage beyond code-required signage.
10. Artwork and interior plants.
11. Construction contingency unless noted.
12. Move-in costs or maintenance costs after move-in.
13. Financing, land and due diligence costs.
14. Hazmat/Mold Abatement.
15. Complete seismic upgrades.
16. ADA compliance.
17. Title 24 energy compliance.
18. Remove and relocate on site furniture.
19. Grading and new/modifying existing utility
20. Site clearing at existing site.
21. Underpinning.
22. MEP upgrades/repairs.
23. Modify sprinkler system, relocate sprinkler heads/ piping.
24. Pest control survey.
25. Correct floor settlement.
26. New or repair or reinstall interior finishes.
27. Mortar Analysis.
28. Structural/ seismic analysis to investigate retrofits.

Material & Escalation Index

Unit rates are based on current dollars. We recommend average of 5% per annum.

AT A GLANCE

Contingency

Many projects change & grow - during design and documentation (and, even during construction) - having items and costs added. To help maintain the budget, the following Contingency allowances are included in this report for some of these unexpected or undefined costs (please refer to the 'Detailed Trade Costs' section for further explanations):

Design Contingency -20%
Construction Contingency -5% (By Owner)

Talking to general contractors

Due to the early nature of the drawings, and our assumptions and inclusions, project costs will not always match general contractors “ball-park estimates”. We do not normally recommend discussing costs with general contractors at this early stage... such advice is sometimes incomplete and therefore not very helpful.

This report is prepared by...

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Total Construction Cost Summary

Priority H,M,L	Scope	Area SF	Cost / SF	Present Value	Cost / SF	Approx. Escalation Total
High	Doctors House Improvements	**1,700**	$146	**$248,914**	$154	**$261,360**
Medium	Doctors House Improvements	**1,700**	$144	**$244,622**	$165	**$281,315**
Low	Doctors House Improvements	**1,700**	$73	**$124,067**	$91	**$155,083**
	TOTAL ESTIMATED CONSTRUCTION COST FOR HOUSE SCOPE	**1,700 SF**	$363	**$617,603**	$410	**$697,758**
High	Gazebo Improvements	**350**	$118	**$41,407**	$124	**$43,477**
Medium	Gazebo Improvements	**350**	$151	**$52,831**	$174	**$60,755**
Low	Gazebo Improvements	**350**	$21	**$7,353**	$26	**$9,191**
	TOTAL ESTIMATED CONSTRUCTION COST FOR GAZEBO SCOPE	**350 SF**	$290	**$101,591**	$324	**$113,424**
	GRAND TOTAL ESTIMATED CONSTRUCTION COST	**2,050 SF**	$351	**$719,193**	$396	**$811,182**

Doctors House Improvements

Priority	Elemental Format	Quantity	Unit	Unit Cost	Total
	BASE SCOPE				
	A Roofing and Flashings:				
H	1 Replace cracked roof tiles (labor only)	5	ea	$130.00	$650
H	2 Remove debris, clean roof tiles, biocide treatment	1,700	sf	$1.75	$2,975
H	3 Trim overhanging tree limbs	2	ea	$1,000.00	$2,000
M	4 Seal/ color-coat roof tiles; high quality acrylic sealant 2 coats	1,700	sf	$17.00	$28,900
M	5 Replace sealant at flashings, adjust fasteners and paint	250	lf	$38.00	$9,500
	B Foundation:				
H	1 Below-grade waterproofing at basement stair; fluid applied asphalt	180	sf	$40.00	$7,200
H	2 New flashing at basement access door head (house wall)	6	lf	$100.00	$600
M	3 Repoint cracks using mortar at brick masonry; >1/4" to 1/2" wide	150	lf	$22.20	$3,331
M	4 Replace heavily eroded brick units w/matching or salvaged units	5	ea	$305.00	$1,525
L	5 Replace basement doors with painted Bilco metal doors or similar water-tight assembly, 51" x 64"	1	ea	$1,171.97	$1,172
	C Wood Siding and Trim:				
H	1 Re-frame and repair entry steps, and replace treads where damaged at three porches, 36" wide x 10" deep x 10 nos x 3 stairs	90	lf	$45.00	$4,050
M	2 Wood-compatible epoxy fill repairs at ext wood siding and trim; < 2"	100	ea	$224.00	$22,400
M	3 Touch-up painting, exterior, 100sf (assumed to repaint all siding to match)	1	ls	$15,000.00	$15,000
M	4 Clean (exterior (light pressure wash)	3400	sf	$1.20	$4,080
	D Windows and Doors:				
H	1 Reglaze south-facing wood windows	4	ea	$1,101.00	$4,404
H	2 Exterior touch-up painting and staining at south-facing windows and doors	6	ea	$300.00	$1,800
H	3 Wood-compatible epoxy fill repairs at south-facing windows and doors	10	ea	$97.87	$979
H	4 Install new weatherstripping at windows and doors	36	ea	$240.00	$8,640
M	5 Reglaze remainder of wood windows	6	ea	$1,101.00	$6,606
M	6 Exterior touch-up painting and staining at remainder of windows and doors	14	ea	$300.00	$4,200
M	7 Wood-compatible epoxy fill repairs at windows and doors, 3-4 inches long or void areas <4 sq	10	ea	$97.87	$979
L	8 Re-adjust interior doors for operability	2	ea	$314.86	$630
L	9 Re-adjust wood windows/ make operable	30	ea	$173.14	$5,194
L	10 Touch-up painting and staining, exterior	50	sf	$50.93	$2,547
L	11 Replace old glass films at windows and doors with modern clear UV-blocking films	30	ea	$540.00	$16,200
L	12 Replace existing shades with custom UV-blocking pull-down shades	36	ea	$800.00	$28,800
	E Handrails and Fixtures:				
H	1 Further Investigation: Study options/details for structural strengthening	1	ls	$5,000.00	$5,000
H	2 Structurally strengthen wooden railings @ Museum	3	ea	$750.00	$2,250
H	3 Verify mounting heights of pipe handrails, and reset accordingly to meet building code	36	ea	$120.00	$4,320

Doctors House Improvements

Priority		Elemental Format	Quantity	Unit	Unit Cost	Total
M	4	Clean exterior wall sconces, apply protective lacquer coating on metalwork including Incidental insurance	4	ea	$2,000.00	$8,000
	F	**Interior Finishes:**				
M	1	Wood-compatible epoxy fill repair at wood flooring, 50' EA	5	ea	$1,720.80	$8,604
M	2	Hand-remove silicone sealant from joints	250	sf	$20.25	$5,063
M	3	Visual integration of pigmented oil stain at abrasions in flooring	25	sf	$300.00	$7,500
M	4	Renew wax coating at wood floors and polish	2000	sf	$5.00	$10,000
M	5	Wallpaper repairs (by conservator); based on 40 hours	50	sf	$114.00	$5,700
L	6	Polyurethane sealant fills at interior wall and trim separations, up to 1/4" crack	50	lf	$12.91	$646
L	7	Wood-compatible epoxy fill repairs at interior wood doors, windows and trim	10	ea	$293.62	$2,936
L	8	Touch-up painting and staining, interior	100	sf	$11.34	$1,134
	G	**Building Systems:**				
H	1	Upgrade/ supplement HVAC system to provide consistent temperature and humidity control	1700	sf	$20.00	$34,000
H	2	Upgrade main electrical panel and fuses to meet higher power demands	1	ea	$10,000.00	$10,000
H	3	Upgrade exterior electrical wiring and GFCI outlets	1700	sf	$10.00	$17,000
L	4	Install insulation at undersides of roof and attic walls	1700	sf	$3.50	$5,950
L	5	Provide new gas line to kitchen	100	lf	$65.00	$6,500
	H	**Pest Control:**				
H	1	Carpenter bee treatment	1	ls	$20,000.00	$20,000
H	2	Regular pest inspection/treatment policy	1	ls	$12,000.00	$12,000
H	3	Remove loose wood from crawl space -complete by Owner				No cost
	I	**Other:**				
H	1	Nominate to the National Register of Historic Places	1	ls	$6,000.00	$6,000
M	2	Digitize TGHS records, including historical references, photographs, restoration documentation, collections catalogs, etc.				No cost
		Subtotal: Direct costs	***$209.98/SF***			**$356,963**
		Markups A				
		General Conditions	20.00	%	$356,962.67	$71,393
		General Requirements	10.00	%	$356,962.67	$35,696
		Bonds	2.00	%	$356,962.67	$7,139
		Insurance	1.50	%	$356,962.67	$5,354
		Contractor's Overhead & Profit	8.00	%	$476,545.16	$38,124
		*Design contingency	20.00	%	$514,668.77	$102,934
		*Cost escalation -see summary page				
		Total	***$363.30/SF***			***$617,603***

** See Note Page 4 Under Contingency and Escalation*

Gazebo Improvements

Priority		Elemental Format	Quantity	Unit	Unit Cost	Total
	BASE SCOPE					
	A	**Roofing and Flashings:**				
H	1	Remove debris, clean roof tiles, biocide treatment	350	sf	$1.75	$613
H	2	Trimming of overhanging tree limbs, 1 tree	1	ls	$1,000.00	$1,000
M	3	Seal/ color-coat roof tile; high quality acrylic sealant 2 coats	350	sf	$17.00	$5,950
M	4	Clean/ protective wax coat at copper finial	20	sf	$26.77	$535
	B	**Foundation and Patio:**				
M	1	Clean paving and foundation walls (light pressure wash)	700	sf	$1.50	$1,050
M	2	Repoint deteriorated/missing grout at paving	10	lf	$30.50	$305
M	3	New sealant around plaque	3	lf	$24.91	$75
M	4	Clean and repaint parge coating	100	sf	$8.40	$840
	C	**Wood Siding and Trim:**				
M	1	Clean woodwork; 50PSI light hand wash	500	sf	$3.00	$1,500
M	2	Wood-compatible epoxy fills < 2"	50	ea	$224.00	$11,200
M	3	Touch-up painting	50	sf	$100.00	$5,000
	D	**Handrails and Fixtures:**				
H	1	Verify mounting heights of pipe handrails, and reset accordingly to meet building code	36	ea	$120.00	$4,320
H	2	Further Investigation: Study options/details for structural strengthening	1	ls	$3,000.00	$3,000
H	3	Structurally strengthen wooden railings @ Gazebo	4	ea	$750.00	$3,000
H	4	Remove/reset copper handrail at NW side	1	ea	$750.00	$750
M	5	Clean/ protective lacquer coat at copper handrails	6	ea	$380.00	$2,280
M	6	Clean/ protective lacquer coat at light fixtures	9	ea	$200.00	$1,800
L	7	Provide concrete post footing at handrails, 6" dia. x 8'	5	ea	$850.00	$4,250
	G	**Building Systems:**				
H	1	Upgrade electrical wiring and GFCI wp outlets	350	sf	$15.00	$5,250
	H	**Pest Control:**				
H	1	Pest inspection/treatment	1	ls	$6,000.00	$6,000
	Subtotal: Direct costs		***$167.76/SF***			**$58,718**
	Markups A					
		General Conditions	20.00	%	$58,717.64	$11,744
		General Requirements	10.00	%	$58,717.64	$5,872
		Bonds	2.00	%	$58,717.64	$1,174
		Insurance	1.50	%	$58,717.64	$881
		Contractor's Overhead & Profit	8.00	%	$78,388.04	$6,271
		*Design contingency	20.00	%	$84,659.09	$16,932
		*Cost escalation -see summary page				
	Total		***$290.26/SF***			***$101,591***

** See Note Page 4 Under Contingency and Escalation*