

January 24, 2019

Jim Lindsey  
1808 W. 6th St.  
Austin, Texas 78703

**RE: House at 1808 W. 6th  
1808 W. 6th  
Austin, Texas**

Job #20195677

Dear Mr. Lindsey:

On Tuesday, January 15, 2019, a representative of our office visited the above referenced site to observe the House that is built on this site. The purpose of our visit was to observe the foundation, formulate an opinion as to the condition, structural integrity and gather enough information that would allow the owner to decide if saving the structure or moving the structure is feasible with his own resources.

The structure is a one story wood framed structure with a pier and beam foundation. The house appears to be pre-1940's and is constructed using solid sawn lumber, wood siding and cedar posts. There have been some modifications to the structure including addition of new footings and a deck on the south side of the house. There also appears to be an addition to the east side of the house. The house also appears to have been in a fire at one time as evidenced by burned joists and cedar posts on the east side of the structure. We did not have any documentation describing the fire or how much of the structure was burned and rebuilt.

The foundation consists of new concrete footings and plinths with some of the original cedar posts still in place. The location of the cedar posts appear to be random and may have been installed to support locations that were exhibiting deflection in the floors at one time. We also observed evidence of new beams and joists located in random locations that also appear to have been installed to eliminate sagging floors. The new wood framing we observed does not appear to have been engineered due to the spans and the size of the members, of which consist of 2-2x6 that are supporting existing 2x8 joist framing at high load areas. The original floor system appears to have consisted of 2x8 floor joists at 24" o.c. which are then supported by 4x6 main beams that span from footing or cedar post to the next support at spans of 6 to 8 feet. Based on our experience in refurbishing existing structures, these 4x6 beams are over spanned. We observed areas where the existing 2x8 floor joists are over-spanned for the current loading conditions and would need to be reinforced by adding footings and beams to shorten the spans or by sistering new joists to the existing joists. We observed an area in the central portion of the foundation where 2x12 framing was added to supplement the existing framing. The new joists appear to be of adequate span and spacing however the 2-2x12 beam that was added to support these loads is over-spanned. We observed two 2-2x6 beams that were added below the conference roof to support the existing 2x8 joist framing. These beams do not appear to have been engineered and are over-spanning.

The locations or the footings below the structure consist of a combination of concrete footings and plinths with cedar posts. The cedar posts do not appear to bear on a footing. Therefore, the posts bear in the existing soil. This was a common practice for house structures built during the time this house was constructed.

To salvage this structure would require extensive design and modification of the foundation. In our opinion all of the 4x6 main beams would need to be replaced with new beams that could span a more conventional span of 8 to 10 feet. Any set of 2x8 joists spanning more than 9'-8" and only supporting

floor loads would need to be reinforced with sistered 2x8 joists or shortening the span with new beams and footings. In our opinion all cedar posts should be replaced with new more conventional concrete footings and plinths at locations that would be structurally sensible. All burned lumber including joists and beams should be replaced or new joists added to supplement these joists and beams. All of the roof and load bearing wall loads for the roof would need to be accounted for by adding the proper beams, joists and footings in the crawl space. In the event all of this reinforcing of the foundation is done some amount of releveling of the house would need to be done. In doing so the interior of the structure which consists of plaster and drywall could be damaged severely and therefor likely to require total replacement. Based on the information we have for the building it does not appear that the walls are constructed using wall studs at 16 or 24 inch spacing. Based on the information we were given and our knowledge of how houses were constructed during that period it us likely the house was constructed in a manner in which the exterior and interior sheathing was used as bearing wall elements. In our opinion, this system of design is not sound and does not provide the shear capacity needed when leveling the structure, nor the shear capacity under normal code design requirements.

It is our understanding that one of the options for the house would be to move the structure. We are not house moving experts and it is beyond our capacity to dictate how to move or whether to move the house would be feasible. However, it would seem to us that to move the house would require extensive preparation in strengthening the existing structure as it sits before cutting the house into two or three pieces just to move it off of the hill where it currently sits. In our opinion, the exterior walls would need to be rebuilt by adding the necessary stud framing to increase the shear capacity of the walls. The new beams and joists would need to be added to the floor system to support the roof and load bearing wall loads. The new foundation would need to be in place at a new site prior to moving the structure with the new and improved floor framing in place before the move could begin.

Based on our observation of the structure as it sits today it is our opinion that extensive renovation to the existing structure would need to be completed to bring the house up to current codes requirements. The current usage of the structure is an office space which by code requires higher design loads for office space, corridors and conference rooms. Based on this alone the current structure would need extensive redesign and reinforcing to meet these load criteria. Adding to the equation the likely wall construction based on the period of construction there would need to be extensive reinforcing to the walls if the structure were to be reinforced and leveled or if the structure were to be moved.

It is not our place to recommend that the house be salvaged, moved or demolished. However, it is our opinion that the house would need an extensive amount of reinforcing and construction to keep as a working structure whether the house were to be salvaged or moved. In addition maintaining the current structure as an office would need an extensive redesign and construction to bring the structure up to current occupancy code requirements.

Should any questions arise concerning this matter please call this office.

Sincerely,



Richard Luevano, Jr., P.E.  
Partner  
Steinman Luevano Structures, LLP  
F-1624



1-24-19