

Foundation and Soil Inspection Services

A Professional Corporation
25 Years' Experience
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**Observations and opinions in this review are made solely without the benefit of soil testing, laboratory results, destructive testing, precise measurements or other verbal or written information provided by others unless otherwise noted.*

April 12, 2023

Ms. Maria Richter
c/o Mr. Ron Melvin from Keller Williams Realty (listing agent)
Re: 2245 High Street
Oakland, CA 94601

As requested, the property was reviewed with an emphasis on condition of the foundation.

My observations were first made around the perimeter of this single-story home built on a moderately sloping lot from the rear to the front and on a raised foundation with crawlspace. Downspouts around the perimeter of the home are not connected into permanent underground pipes to convert water away from the structure, and although there are some short flexible pipe segments on a few downspouts, they discharge close to the foundation. A downspout near the right rear corner is missing allowing water to discharge directly from the gutter down to the foundation area. There is an overall gradient of the rear yard that obviously conveys water towards the rear of the structure, and I noted a shallow channel drain approximately 3 ft away from the rear fence that is clogged with debris. There is also a shallow trench along the upper right rear yard that conveys water toward the right rear corner area of the house. The concrete patio at the upper left and left rear is not controlled into surface drains and conveys water down the steps and towards the left corner of the house through a pipe which then concentrates the water along the left side foundation near the cantilevered window. Observations made along the perimeter Foundation noted some minor to excessive stucco cracks along the foundation, near the window and door frames, and some patching along the left side brick fireplace. Generally speaking, the wood framing appears to be resting square upon the foundation. The exterior of the home does not appear to have been recently painted.

The crawlspace area was reviewed and found to have moist to wet soil throughout each area and muddy soil in the lowest crawlspace area including under the front porch and front room. There is a sump pump in the lowest crawlspace area, but this is not functional. A shallow erosion channel has developed in the right half of the crawlspace causing deposition of soil and mud in the lower right front area and then eventually water flows to the lowest point. Observations of the perimeter foundation noted that everything appears to be original. Some of the concrete appears to be relatively weak and no foundation bolts or seismic support upgrades were noted in any area. The interior wood pier posts that support the center floor beam are generally straight although they appear to have some deterioration. Please refer to a recent termite inspection for evaluation of any of the wood framing members. Others have installed an intermediate floor beam support under the right rear area with modest to poor workmanship. This floor beam has been shimmed but overall is not causing obvious distress to the original wood floor framing members. Some cracks were observed in the foundation up to $\frac{3}{4}$ " wide and there are a few areas with "rock pockets" in which the concrete mortar does not completely encompass the rocks within the original concrete. Most of the brick fireplace mortar joints are very weak and turned to sand.

It is concluded the condition of the foundation appears to be continuing to support the house wood framing; however, there is inherent weakness due to lack of steel reinforcement in the concrete and

likely low compressive strength from original construction. The wood framing is also not bolted to the foundation and leaves the home vulnerable to moderate to severe damage in the event of an earthquake with strong ground shaking. Drainage around the perimeter of the home is not well controlled and does not divert water away from the foundation or crawlspace areas. Additionally, the overall gradient of the rear and side yards could convey groundwater towards the foundation and lower elevations of the crawlspace. The sump pump under the home was not functional.

It is recommended at a minimum drainage be improved around the perimeter to better control surface water runoff from the roof and concrete areas to divert water to the sidewalk or street as is practical. Please use rigid PVC pipe if pipes are to be placed below ground in a permanent manner or at a minimum flexible pipes above ground discharging near the sidewalk. Cost range could be \$8,000 to \$10,000. A drainage system may need to be installed in the crawlspace to control groundwater and may include a gravity-fed drain under the foundation to eliminate the need for a sump pump. The cost range for this would be \$7,500 to \$9,500. Because the perimeter wood framing is not bolted to the concrete foundation, you may consider seismically upgrading these components; however, doing so may have minimal impact if there is an earthquake with strong ground shaking because of the potential inherent weakness in the original foundation to hold the bolts properly and stresses that are induced on a foundation during strong ground shaking. Providing a guarantee from a Contractor may also not be possible for that, but installing these materials is likely better than doing nothing. Ideally at some point, the foundation should be replaced with a new modern steel reinforced foundation. Although I did not enter the residence because of tenants' rights, you described there is a crown in the floor near the front entry door. I would speculate that the front porch area foundation closest to the sidewalk has likely settled and there is a wood framed wall near the front door that is likely caused a crown or a high point in the floor. This most likely is just a cosmetic issue, but does show there likely has been some settlement of the front foundation footing.

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Sincerely,



John Shipstead
Professional Geologist #7451













