



Please Respond To:
550 Deep Valley Drive
Suite 273
Rolling Hills Estates
California 90274

February 3, 2020

F.N. 1-20-0013

Drew Tolliffe
6347 Tarragon Road
Rancho Palos Verdes, CA 90275

Subject: STRUCTURAL EVALUATION OF SINGLE FAMILY RESIDENCE
6347 Tarragon Road, Rancho Palos Verdes, CA 90275

Dear Mr. Tolliffe:

ASSIGNMENT

Pursuant to your request, we personally inspected the subject single family residence and attached garage to determine its structural integrity and condition. We base our conclusions on a visual observation of accessible exterior, interior and underfloor areas. No destructive or subsurface testing was performed by our firm, that being beyond the scope of this report. Our field investigation was conducted on January 27, 2020.

HISTORY

REDFIN indicates that the 2,206 square foot residence which contains 5 bedrooms and 3 bathrooms were built in 1964.

At the time of our site inspection, you provided the following information:

- Your parents purchased the subject property in 1963 and built the home,
- The exterior walls were last repainted approximately 15 years ago,
- The interior wall surfaces were last repainted in the 1990's,
- The acoustical ceilings were covered with sheetrock in the 1990's,
- The kitchen French doors were installed in the 1990's,
- The dinette bay window was installed in the 1980's,
- New cement shakes replaced the existing wood shake roof in the 1990's,
- No foundation improvements have been performed.

SITE CONDITIONS

BLUEPRINTS

A copy of the floor plan, foundation plan and building cross sections were provided for our review as shown on Photographs 1 – 3. The plans specify conventional shallow footings for the raised foundation system.

EXTERIOR

Photographs 4 – 32 are exterior views which were taken at the time of our inspection.

A view of the asphalt driveway that leads up to the subject property from Tarragon Road is depicted on Photograph 4.

The subject property accepts both surface and subsurface runoff from the uphill neighboring properties to the north as shown on Photographs 5, 6, 30 & 31.

There are an insufficient number of downspouts to handle the amount of roof runoff from the eave gutters as represented on Photograph 7. There are cracks in the asphalt driveway as shown on Photograph 8.

There is also noticeable cracking in the northwest corner of the garage slab as depicted on Photographs 9 & 10.

The property also descends toward the east at the attached garage where we observed significant horizontal separation between the east walkway and the adjoining garage foundation as depicted on Photographs 11 & 15.

The property also descends toward the south from the rear patio. There are no area drains in the patio and walkways to collect surface runoff as depicted on Photographs 12, 16, 17, 25 & 26. We observed cracking throughout the exterior flatwork.

Cracking was also detected on the exterior stucco wall surfaces as represented on Photographs 13, 20, 22 – 24, 26 – 29 & 32. Noticeable horizontal cracking at the base of the exterior stucco walls was detected at the southwest corner of the home where we expect there to be greatest depth of fill soil.

INTERIOR

Photographs 33 – 56 are interior views which were taken in the residence at the time of our inspection.

We entered the home through the attached garage as shown on Photograph 33 since we were informed that the front doors are not operating properly as depicted on Photograph 36.

The interior floor surfaces in the family room, dining room and living room felt noticeably tilted downward toward the south exterior walls and we observed numerous interior cracks in these rooms as shown on Photographs 37 – 43.

Similar unlevel floor surfaces and interior wall cracks were detected in the bedrooms and bathrooms located at the west end of the home as shown on Photographs 44 – 56.

UNDERFLOOR CRAWLSPACE

Photographs 57 – 72 were taken in the underfloor crawlspace at the time of our inspection.

The wood girders and posts were found to be tilted toward the direction of the descending slope as depicted on Photographs 58, 59 & 63 - 65.

There are wide cracks in the footings that reveal no horizontal rebar as shown on Photographs 60, 67 & 68.

There are noticeable dessication cracks in the soil grade as shown on Photographs 63, 66 & 67 which are characteristic of highly expansive soils which have dried following saturated conditions. This phenomena indicates that surface and/or subsurface runoff is directed into the lower elevated underfloor crawlspace during heavy rains.

Photograph 69 verifies that the wood mudsill is bolted to the existing concrete foundation.

More evidence of large dessication cracks and moist soil was detected in the northerly section of the underfloor crawlspace as shown on Photographs 70 – 72. This section of the underfloor is closest to the ascending hillside.

MANOMETER SURVEY RESULTS (Exhibit A)

A manometer survey of the interior floor surfaces was conducted to determine its topography. In general, we noted that the floor surfaces slopes downward from the north toward the south direction.

An elevation deviation of 1.3 inches occurs in the floor surface from the northwest bedroom toward the southwest bedroom.

In living room, we measured an elevation deviation from the north corner to the south exterior wall near the fireplace occurs of 1.2 inches.

CONCLUSIONS

Overall, we found the subject residence to be in satisfactory condition considering its age, the poor site drainage conditions and the likelihood of fill soil beneath the building pad especially at the south section.

Subsurface runoff is directed beneath the raised foundation system from the higher elevated areas to the north as indicated by the wide dessication soil cracks and moist soil observed in the underfloor crawlspace. In addition, we noted that there are no area drains in both the hardscape and softscape areas to collect surface runoff and there are an insufficient number of downspouts to collect roof runoff from the eave gutters.

And as a result of water and its effect on the existing expansive and possibly fill soil, we believe that the building foundations have been affected by both long-term settlement and soil creep influences. The influence of water on the south descending slope triggers lateral movement which can be describe as soil creep. The vertical cracks in the existing footings and the tilted girders and posts in the crawlspace are indicative of the phenomena.

It is our recommendation that a geotechnical engineer be consulted to perform a soils investigation to provide recommendations to stabilize the existing foundations. It is expected that they will also recommend improving the site drainage condition to reduce the amount of runoff that can be directed beneath the residence. A French Drain system should be constructed along the base of the north ascending slope to collect subsurface runoff. This French Drain should have a minimum 5 foot depth and should contain a 6 inch diameter perforated drain line covered in clean gravel and wrapped with a Mirafi filter fabric.

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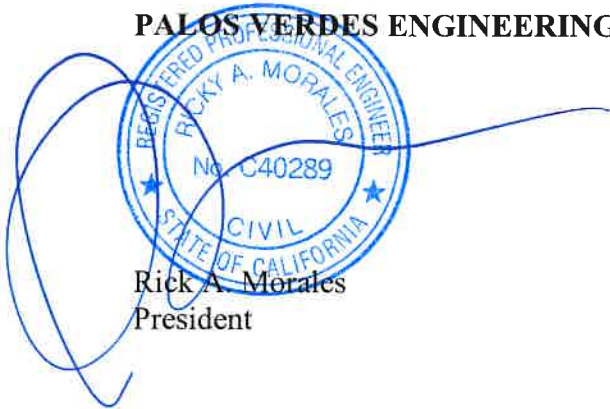
Upon completion of the soils report, we recommend meeting at the subject property with the geotechnical engineer, so they can discuss their recommendations, a general contractor and my self. Our office can then prepare plans to both improve the site drainage conditions and the existing foundations.

In order to prepare the site drainage and grading plan, we will need a topographic survey of your site which our firm can also provide.

Should you have any questions regarding the content of this report, please do not hesitate to call.

Respectfully submitted,

PALOS VERDES ENGINEERING CORPORATION



Rick A. Morales
President



6347 Tarragon Rd Rancho Palos Verdes, CA 90275

\$1,280,869

Redfin Estimate

5

Beds

3

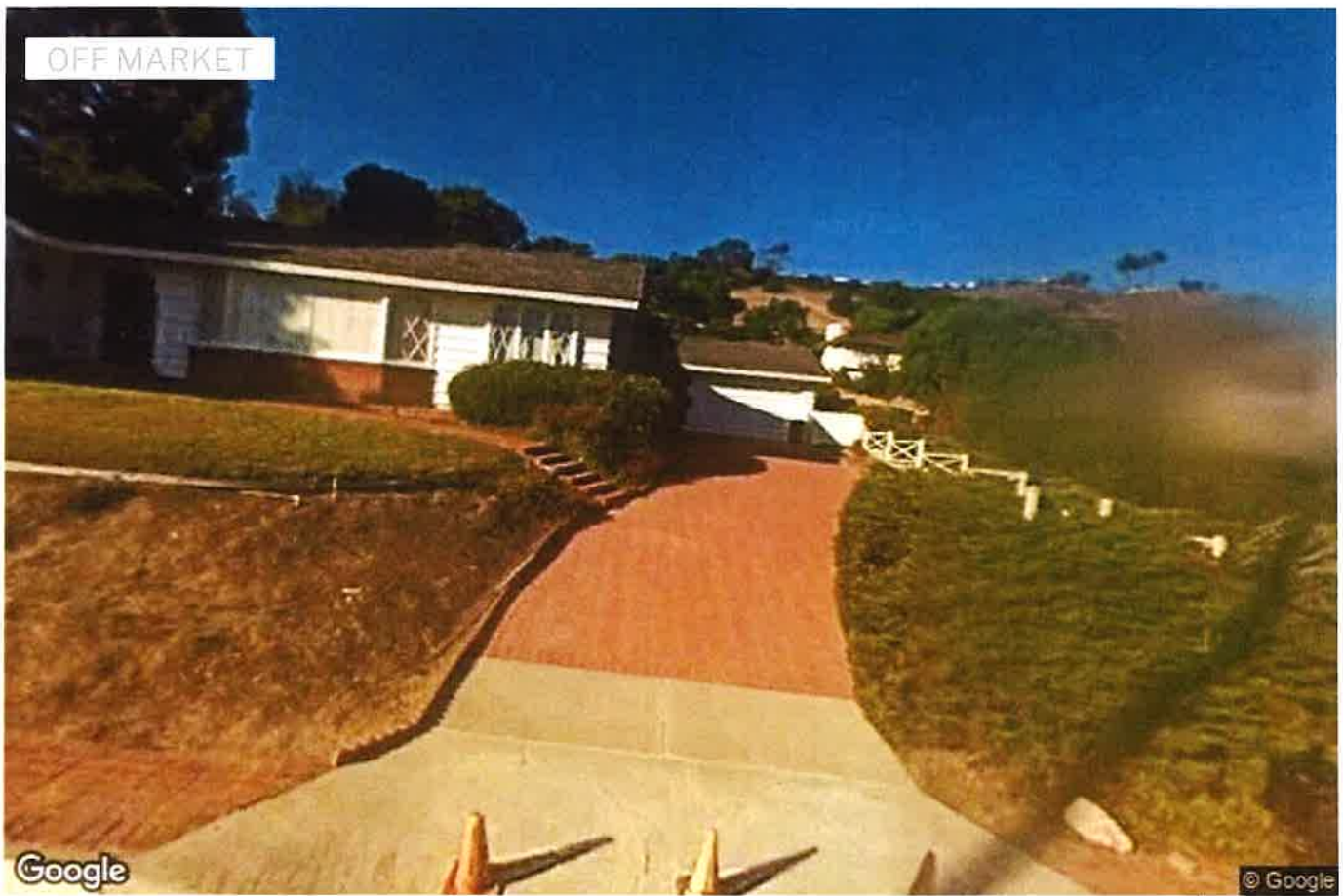
Baths

2,206 Sq. Ft.

\$581 / Sq. Ft.

Built: 1964

Status: Off Market Source: Public Records



Is This Your Home?

Track this home's estimate
& nearby sales activity






Google Maps 6347 Tarragon Rd



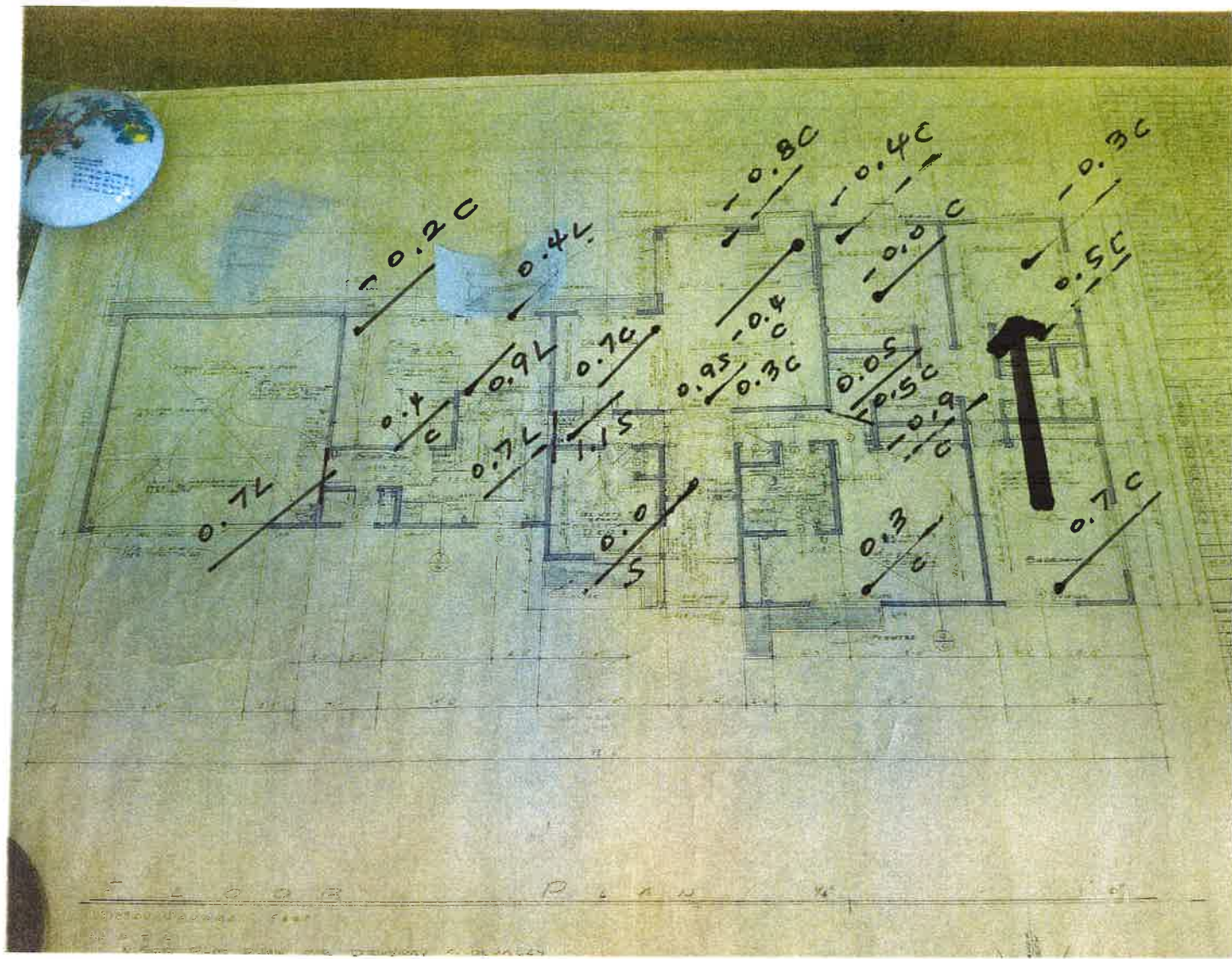
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6347 Tarragon Rd
 Rancho Palos Verdes, CA 90275

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 Directions
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 Save
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 Nearby
- 
 Send to your phone
- 
 Share

Photos

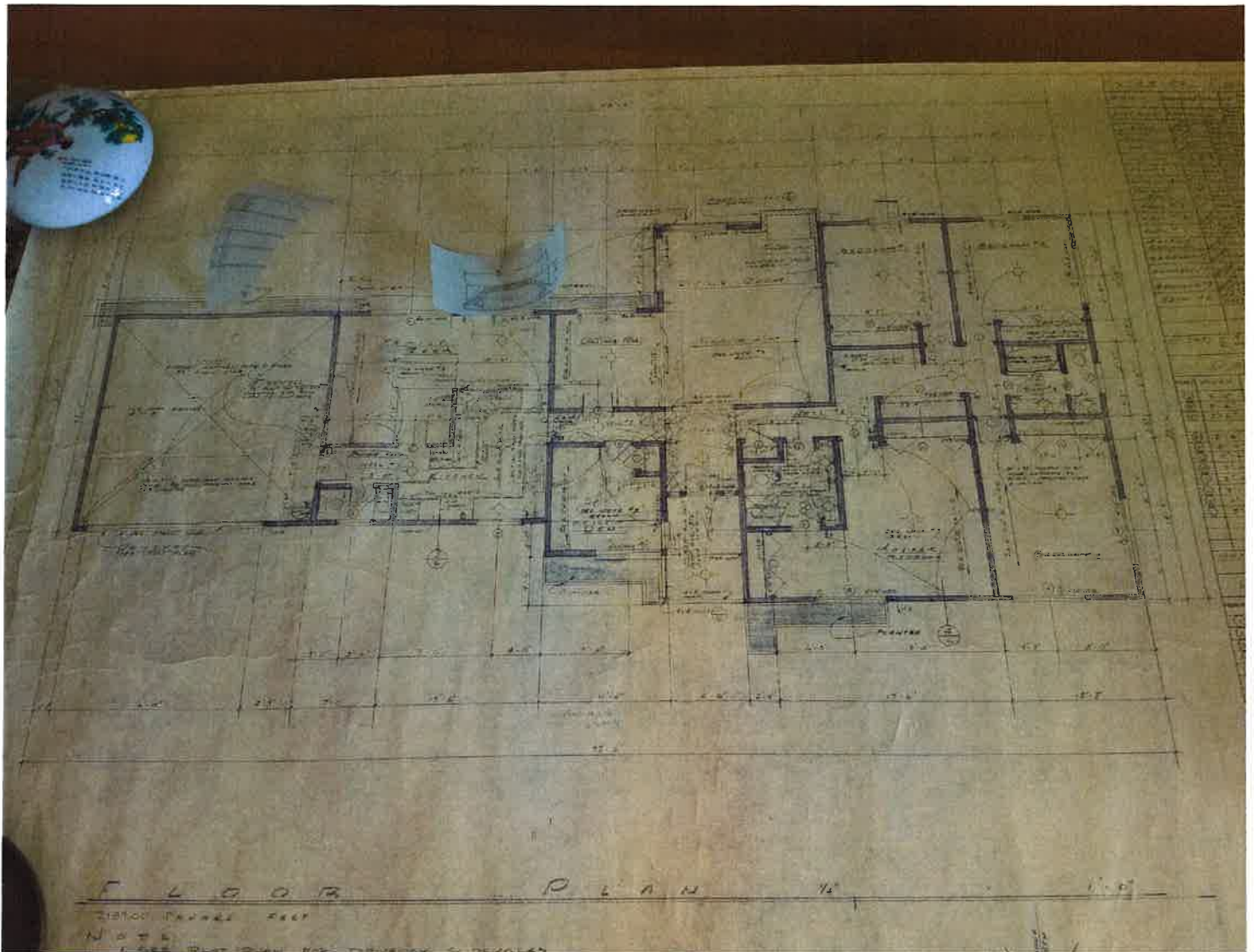


INTERIOR FLOOR
MANOMETER SURVEY

EXHIBIT A

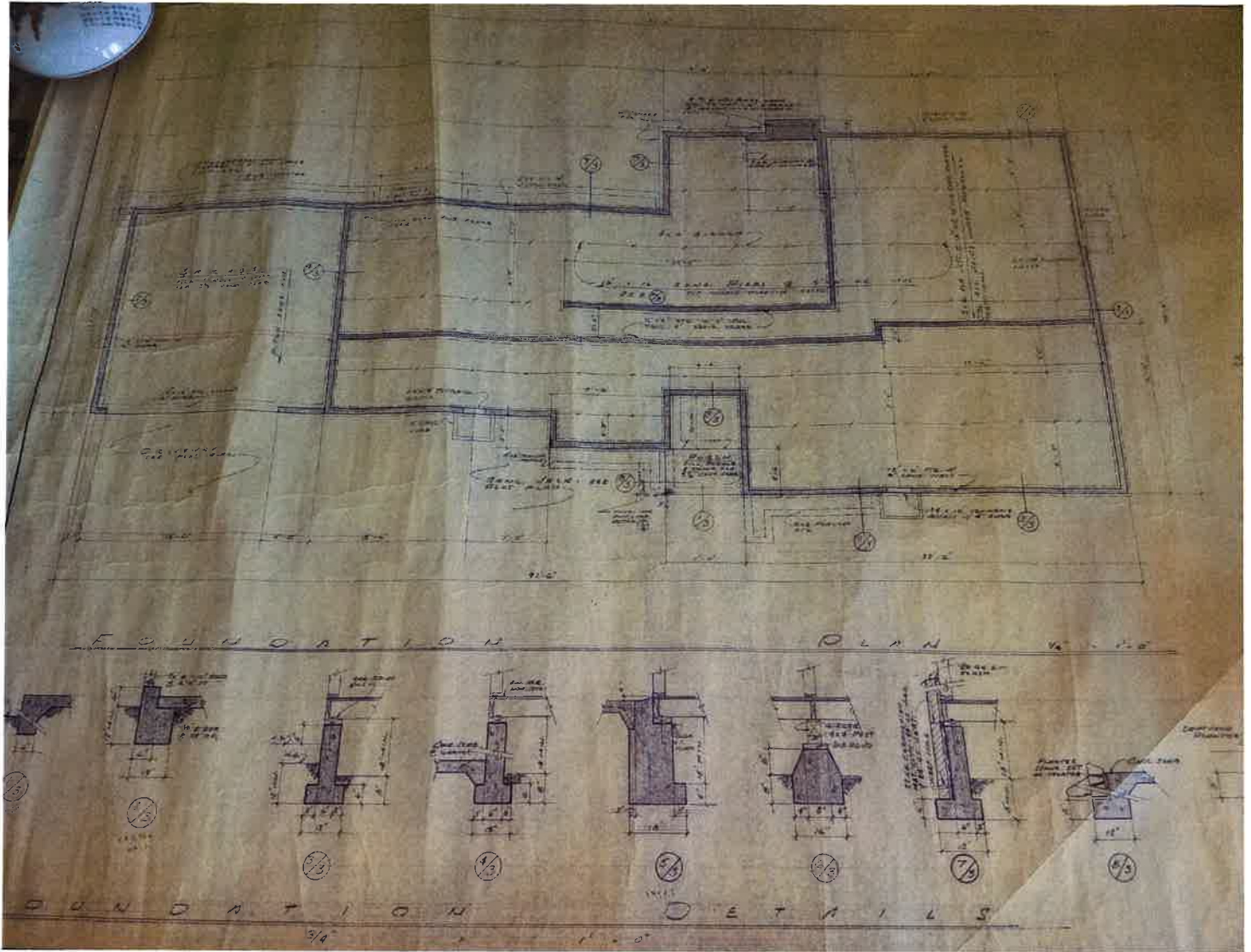
LEGEND (FLOOR)

- L LINOLEUM
- C CARPET
- S STONE

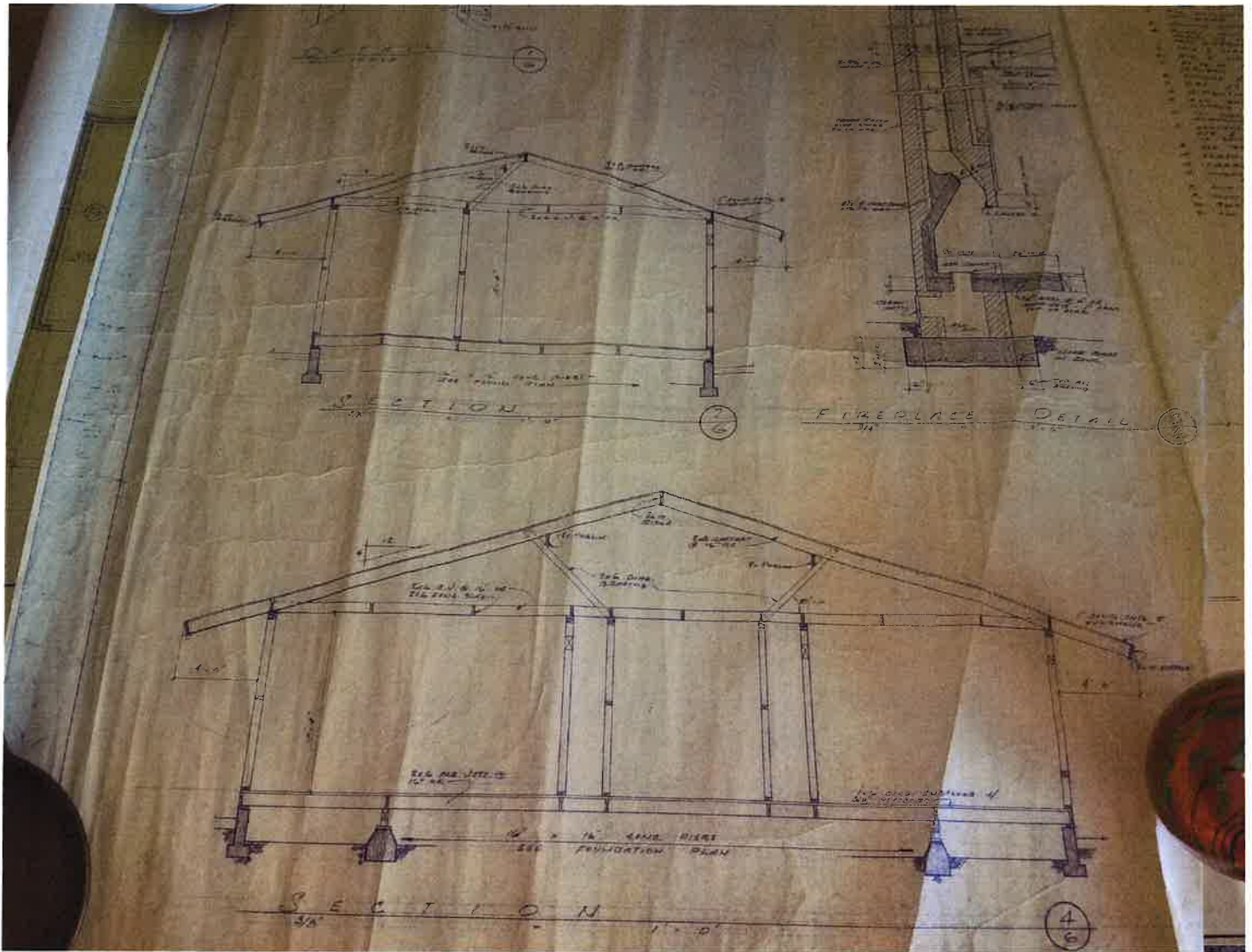


- FLOOR FOUNDATION PLAN
- BUILDING CROSS SECTIONS
(PHOTOGRAPHS 1-3)

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3

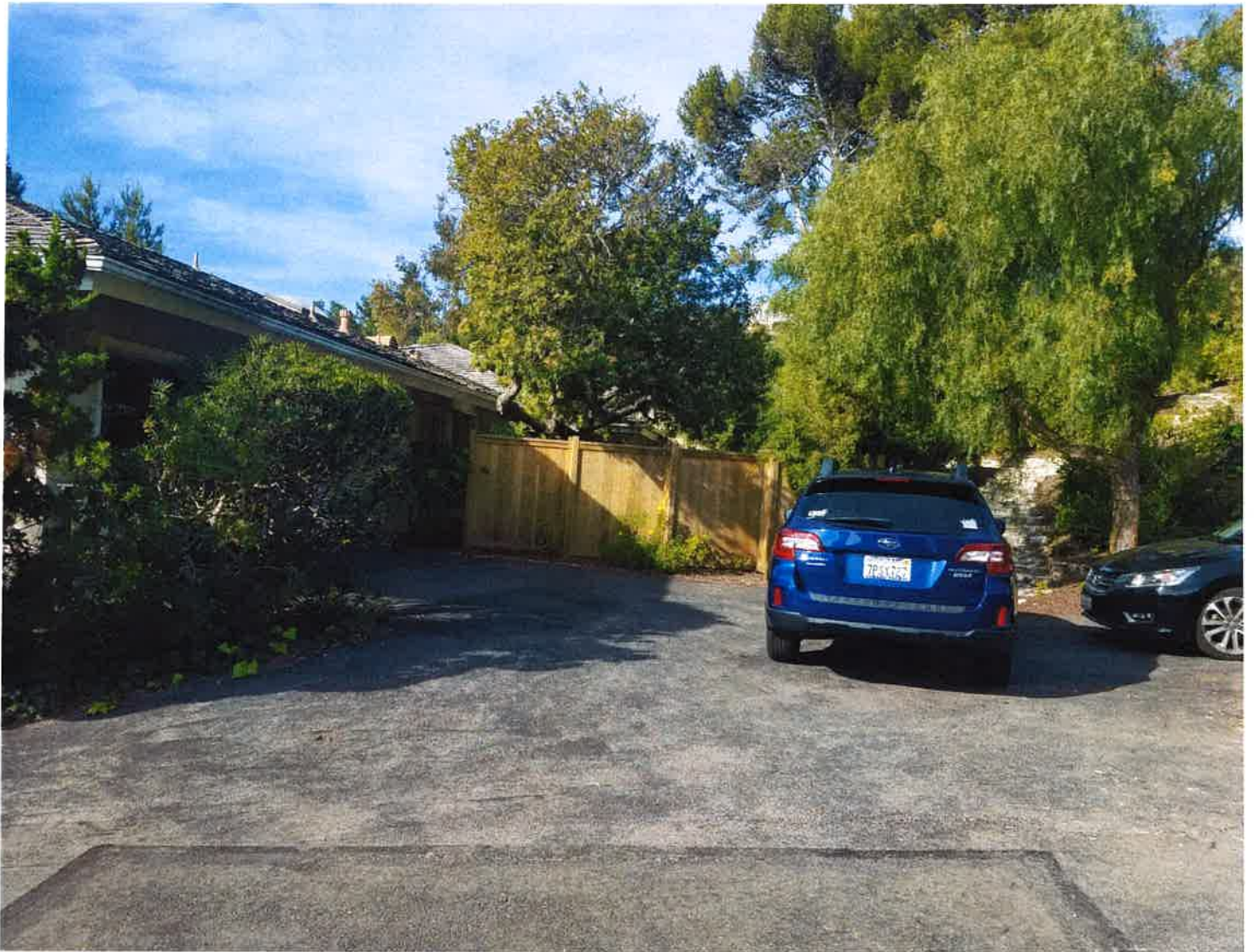


EXTERIOR VIEWS
(PHOTOGRAPHS 4-72)

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INTERIOR VIEWS
(PHOTOGRAPHS 33 - 56)

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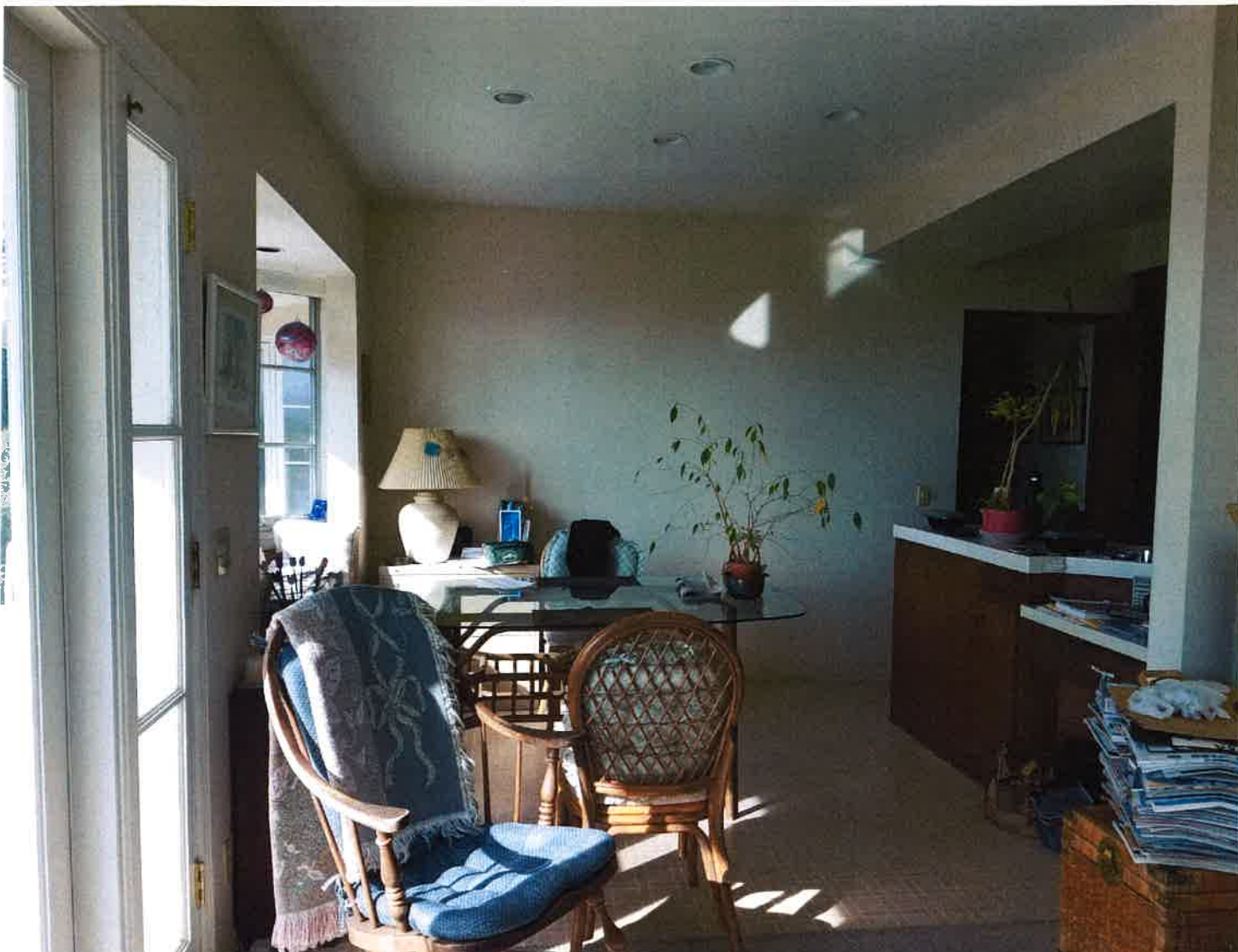
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36



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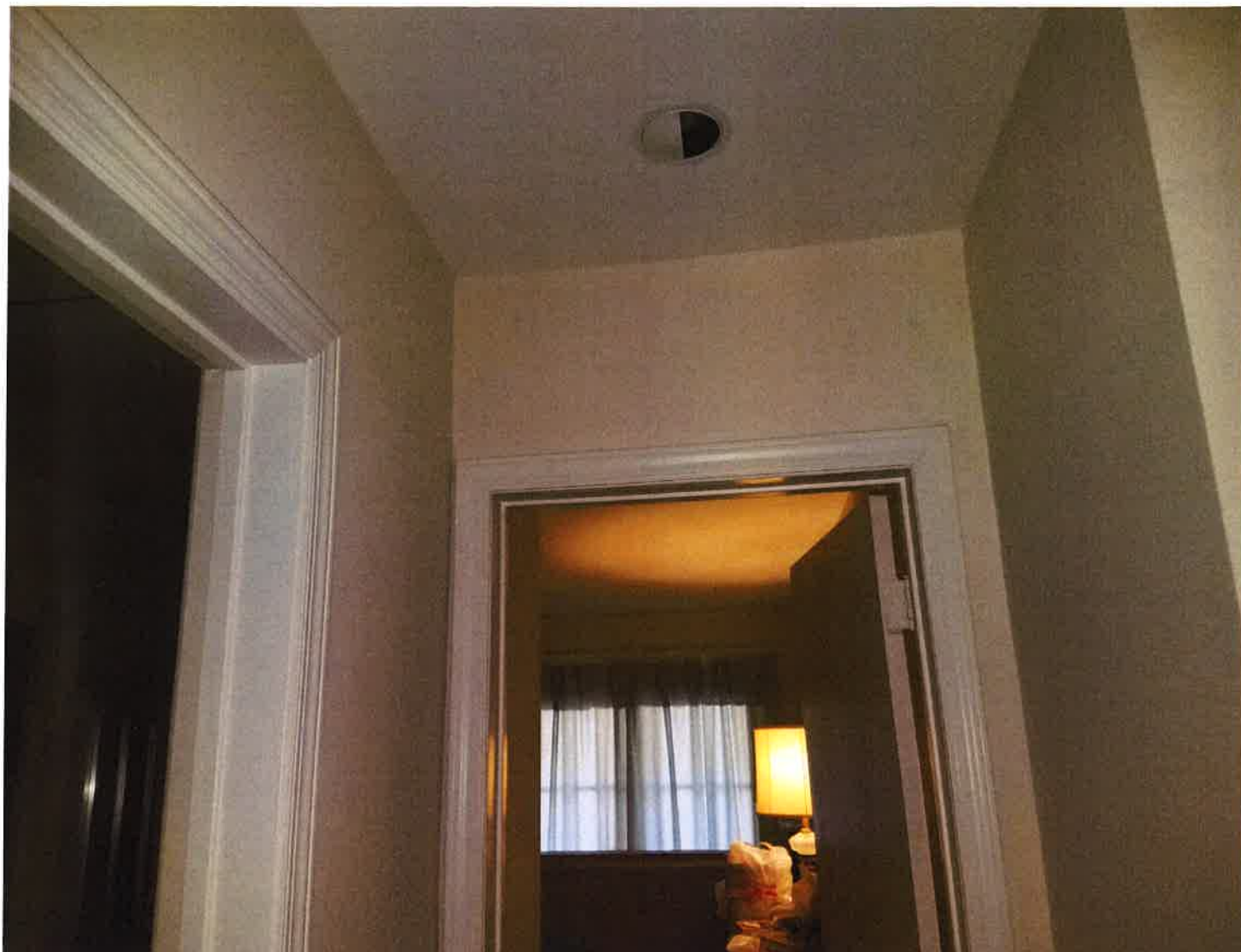
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44



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4)



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81



S2



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56



UNDER FLOOR CRAWLSPACE
(PHOTO 6 ADPTS 57 - 72)

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64



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68



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