



May 3, 2016
W&G #S16180.00

FIELD INVESTIGATION REPORT

Pinney House
180 S. Euclid Avenue
Pasadena, CA 91101

INTRODUCTION

This report was made at the request of the property owner to review and evaluate visible portions of the basic structural system throughout the existing subject building and offer an opinion as to the structural condition and integrity of the structure. The investigations were conducted on April 21, 2016 and April 29, 2016.

DESCRIPTION OF FACILITY

The existing type V structure was originally constructed around 1906 and consists of one-and-a-half stories with partial basement and raised floor system below the original structure, except for the front porch, which has a modified structural system that cannot be viewed. The permitted square footage is approximately 3,300; plan dimensions were not taken or available. The structure has undergone several significant additions and interior modifications serving as both separate office and residential use.

The primary roof structure is gabled and comprised of conventional wood framing, which was not visible. The floor framing consists of wood framed rafters and joists supported by exterior and interior stud wall framing. The lateral resisting system appears to be straight or diagonal sheathed wood walls over cut stone or river rock foundation. The rear addition may consist of partial shear panels over both stone foundation and non-original concrete footings. The partial basement consists of concrete retaining walls and concrete slab-on-grade.

INVESTIGATION

Our investigation consisted solely of a visual walk through the areas of the building that were accessible. No tests, analyses or exact measurements were made. There were no structural or architectural plans available for reference or review.

FINDINGS

Based on the site visit the following items were noted:

1. Exterior stucco walls and stucco soffits show a number of areas with substantial signs of damage, leakage, and moisture intrusion. Stucco has been poorly patched in a number of places (Figures 1-7).
2. Signs of leakage, moisture intrusion, water damage, and dry rot are evident in a number of locations at the basement walls, perimeter wood walls, and floor framing (Figures 8-11).

3. Cut stone and river rock foundations are unreinforced and cracked at corners as well as other locations. No positive anchorage to the foundation was observed (Figures 12-13).
4. Based on time of construction, the brick chimney is unreinforced (Figure 14).
5. The non-original exterior stair and walkway structure used to access attic living space is extremely distressed. The method of construction significantly impacted the original building systems and created a number of areas where moisture can enter the structure. Plywood sheathing, stair treads, stringers, and walkway framing has been poorly maintained and is subject to partial collapse or local failure (Figures 15-21).
6. No signs of settlement were observed.
7. Tile roofing materials were found to be non-original sheet metal.

CONCLUSIONS AND RECOMMENDATIONS

Based on the findings of the visual walk-through, the building has several areas of structural deficiency. Multiple signs of distress (likely due to poor maintenance and inadequate repair) of the structural system—that was visible—were observed. The property has allegedly been subject to several fires and subsequent repairs. Previous owners have expressed concern in the manner in which repairs have been made over damaged materials. A significant amount of destructive investigation is required and recommended in order to better assess the lack of integrity of the structural members that are not visible. The evidence of moisture intrusion could be a potential for further dry rot. Treatment or more likely full removal of dry rot material is required to prevent spread to existing or new building materials.

The existing shear walls are sheathed with stucco only; consequently, structural damage during seismic loading is anticipated. Current design requirements for a similar building would require plywood shear panels, which would greatly reduce the amount of structural damage in a seismic event. Once stucco has cracked, it loses its structural integrity and value as a lateral resisting element.

Water proofing systems such as building paper behind the plaster was not evident in the damaged areas or areas where existing plaster system could be observed. As such, significant water damage to the wood framing systems should be anticipated. It should be noted that the amount of patching and painting on the exterior walls could be masking prior cracks and distress.

Anchoring the structure to the foundation to reduce damage due to future earthquake episodes is critical. It is also recommended that the cut stone foundation be supplemented or replaced with a reinforced concrete continuous footing and stem wall for positive anchorage and lateral load path. The unreinforced brick chimney should also be positively anchored to the roof and floor diaphragms.

It is our opinion that the exterior stair and walkway be removed or entirely replaced to prevent future collapse and deterioration of adjacent structures or structural elements.

The current roof system is comprised of sheet metal roofing rather than the original clay tile. If the roofing needs to be restored to the original clay tile building material, the weight to the structure both vertically and laterally would be greatly increased. The original roof rafters and lateral resisting members would be overstressed by today's standards, so reinforcing of all of the existing members would be required.

RELOCATION OR PARTIAL DEMOLITION

If the existing building was relocated on site or another site, points of bearing and lateral resistance would need to be fully identified. Destructive testing and investigation to verify structural integrity of non-visible members is highly recommended. It should be anticipated that structural elements may need to be fully replaced to prevent spread of any observed fungal ailments such as dry rot.

Continuous concrete foundations and footings would be recommended, so the building could be positively anchored to the foundation.

Shoring may be required for any new basement or foundation improvements. Existing partial basement could disrupt lateral load path and may need to be reconfigured or modified based on building placement.

With the significant work outlined above for either relocation or partial demolition, it is likely that little of the existing structural elements would remain. As such, it is practical to pursue documentation, demolition, and reconstruction/recreation of a portion of the existing structure, not as a preservation effort, but rather as an architectural design effort.

GENERAL

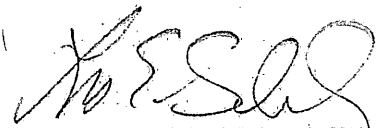
This report is based on a visual examination of the exposed areas of the structure. No tests, destructive or non-destructive were made. Drawings of the original construction were not available and no exact measurements were obtained. The inspection was made solely to assist in evaluating the structural integrity of the building. Neither the investigation nor this report is intended to address mechanical, electrical, plumbing, or architectural features.

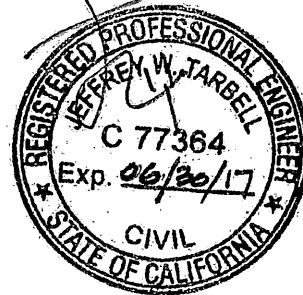
The findings and recommendations in this report represent conditions found at the time of the investigation and were prepared in accordance with generally accepted professional engineering principles, practices and judgment. No warranty is expressed or implied.

Respectfully submitted,

WHEELER & GRAY, INC.




Les E. Schulz, S.E., Principal




Jeffrey Tarbell, P.E.

APPENDIX

stains, moisture intrusion, and sagging



Figure 1: Damage to Soffit at Porch Entry (Looking South)

see Figure 5

see Figure 3



stains and sagging stucco

see Figure 4

Figure 2: Damage at Entry Cover (Looking West)

APPENDIX (cont'd)

cracks and
spalling of
stucco



Figure 3: Cracks at Entry Column (Looking South)

cracks and
patched stucco

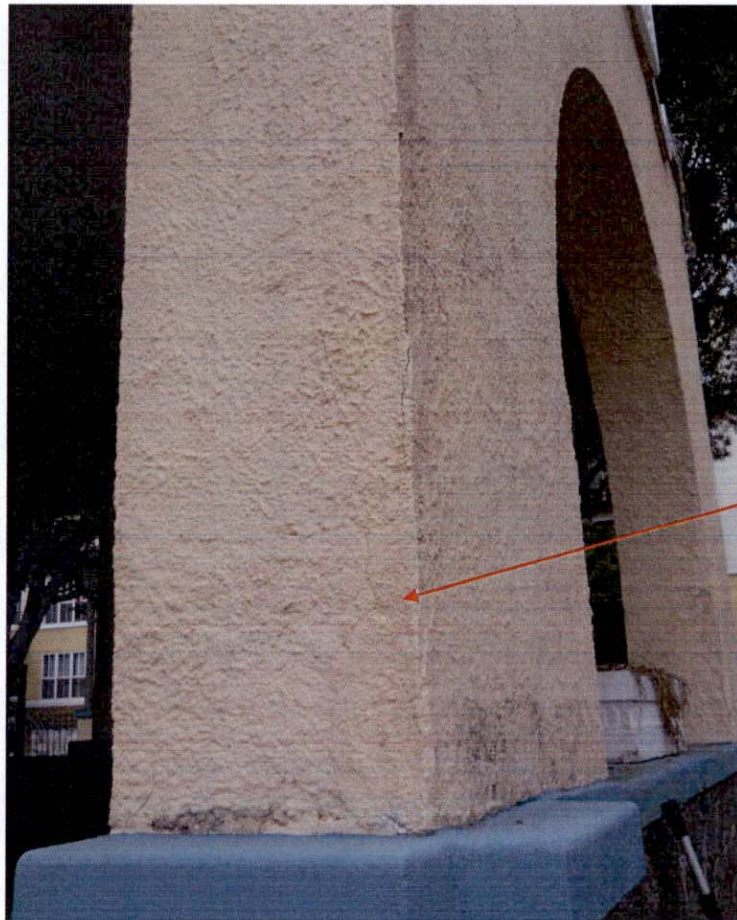


Figure 4: Cracks at Entry Arch (Looking West)

APPENDIX (cont'd)



spalled stucco
at roof

Figure 5: Spalling at Entry Roof (Looking Southwest)



Figures 6 & 7: Damage at Porch (Looking East)

APPENDIX (cont'd)



Figure 8: Moisture at Foundation (Looking North)



Figures 9 & 10: Moisture at Foundation (Looking West)

APPENDIX (cont'd)



Figure 11: Typical Foundation Without Anchorage (Looking South)



Figures 12 & 13: Cracks at Foundation Corners (Looking Northwest & Southwest)

APPENDIX (cont'd)



Figure 14: Brick Chimney at Foundation (Looking South)

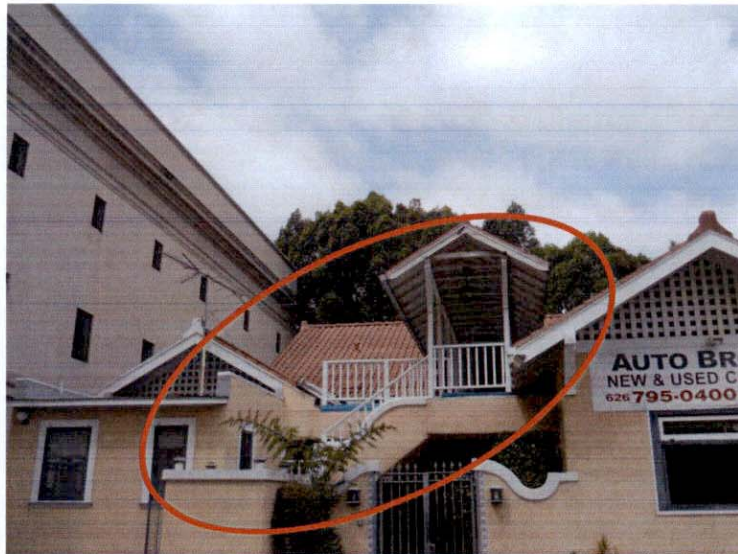


Figure 15: Non-Original Rear Stair and Walkway (Looking West)

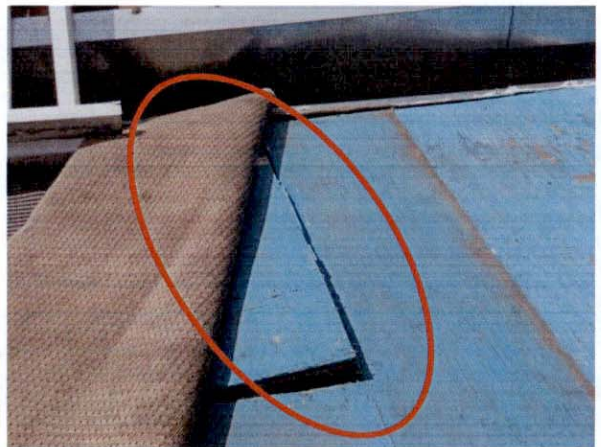
APPENDIX (cont'd)



Figures 16 & 17: Damage at Rear Stair & Soffit (Looking East)



Figures 18 & 19: Damage at Rear Stair Landing & Walkway (Looking South & West)



Figures 20 & 21: Damage at Rear Stair & Walkway (Looking North & South)



May 18, 2016
W&G #S16180.00

FIELD INVESTIGATION REPORT

Pinney House
180 S. Euclid Avenue
Pasadena, CA 91101

INTRODUCTION

This report was made at the request of the property owner to review and evaluate visible portions of the basic structural system throughout the existing subject building and offer an opinion as to the structural condition and integrity of the structure, as well as evaluate the ability to relocate the structure on site. The investigation was conducted on May 11, 2016 as a supplementary review of key areas where limited areas of exterior finish was removed.

DESCRIPTION OF FACILITY

The existing type V structure was originally constructed around 1906 and consists of one-and-a-half stories with partial basement and raised floor system below the original structure, except for the front porch. The construction of the front porch is not original, with earth fill, rock base and concrete with a non-original tile finish. The structural system of the porch was viewed from areas along the non-original concrete stem wall and through removal of a porch tile and core drilling. The structure has undergone several significant additions and interior modifications serving as both separate office and residential use.

The primary roof structure is gabled and comprised of conventional wood framing, which was not visible at the interior. The floor framing consists of wood framed rafters and joists supported by exterior and interior stud wall framing. The lateral resisting system appears to be straight or diagonal sheathed wood walls over cut stone or river rock foundation. The rear addition may consist of partial shear panels over both stone foundation and non-original concrete footings. The partial basement consists of concrete retaining walls and concrete slab-on-grade. The stem walls are either original wood framing or non-original concrete at a few locations, supported by original unreinforced stone foundation.

INVESTIGATION

Our investigation consisted solely of a visual review of the areas of the building that were accessible. No tests, analyses or exact measurements were made. There were no structural or architectural plans available for reference or review.

FINDINGS

Based on the site visit the following items were noted:

1. Significant termite damage observed at wall area exposed at porch entry (Figures 1-2).
2. Significant termite damage observed at soffit area exposed at porch entry (Figures 3-6).

3. Significant termite damage observed at arch area exposed at porch entry (Figures 7-9).
4. Severe water damage and dry rot at non-original walkway, stairs, and courtyard canopy was observed (Figures 16-22).

CONCLUSIONS AND RECOMMENDATIONS

Based on the findings of the visual review, the original building appears to be in generally good condition for the period of time in which it was constructed; however, the lateral resisting system, namely diagonal sheathing, has been compromised. Termite damage, but no dry rot to the original building, was observed in the areas exposed from destructive investigation.

1. Non-original walkway, stairs, and courtyard canopy should be removed and/or replaced.
2. The exterior finish of the building should be removed to locate all areas of termite damage and areas of potential dry rot. Termite-damaged or dry rot diagonal sheathing and wood lath should be removed and replaced. Building should be treated for termites to avoid further damage to structural members.
3. A building mover should be consulted to evaluate relocating all or a portion of the building on site.

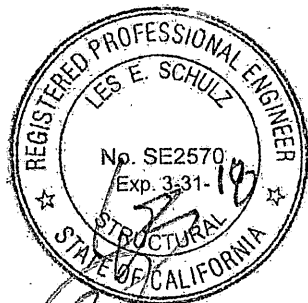
GENERAL

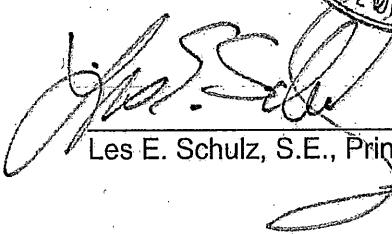
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The findings and recommendations in this report represent conditions found at the time of the investigation and were prepared in accordance with generally accepted professional engineering principles, practices and judgment. No warranty is expressed or implied.


Respectfully submitted,

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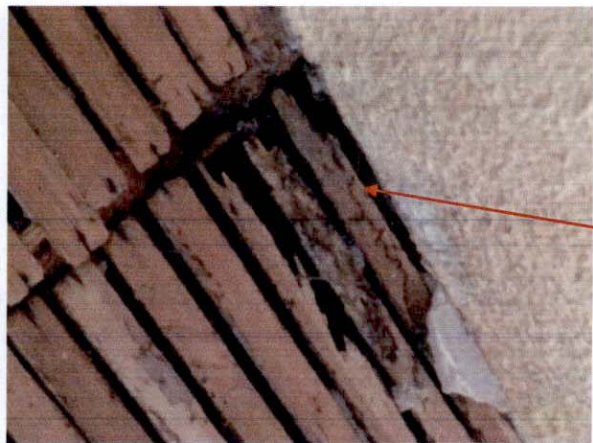



Jeffrey Tarbell, P.E.

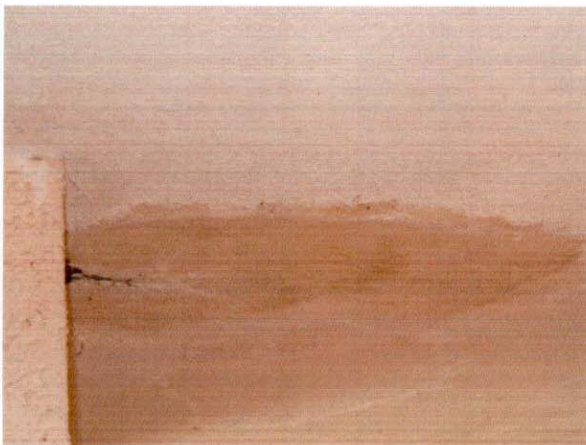
APPENDIX



Figures 1 & 2: Termite Damage to Wall Sheathing at Porch Entry (Looking East)

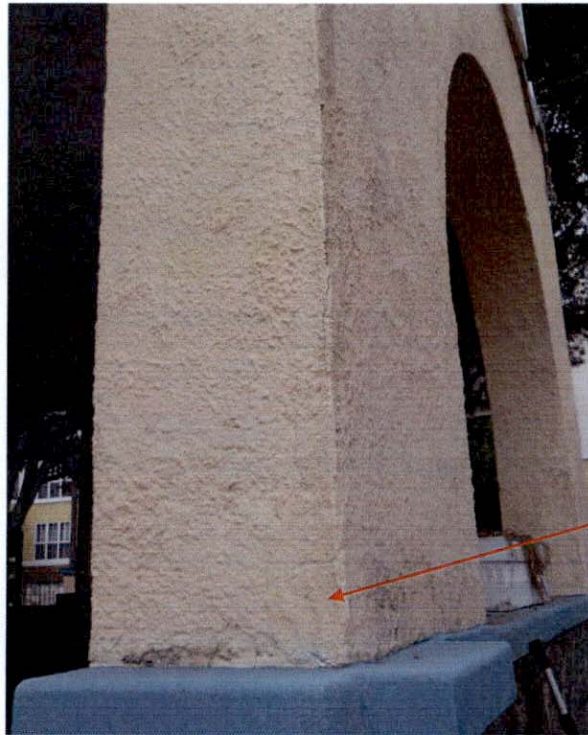


Figures 3 & 4: Termite Damage to Wood Lath at Porch Entry Soffit



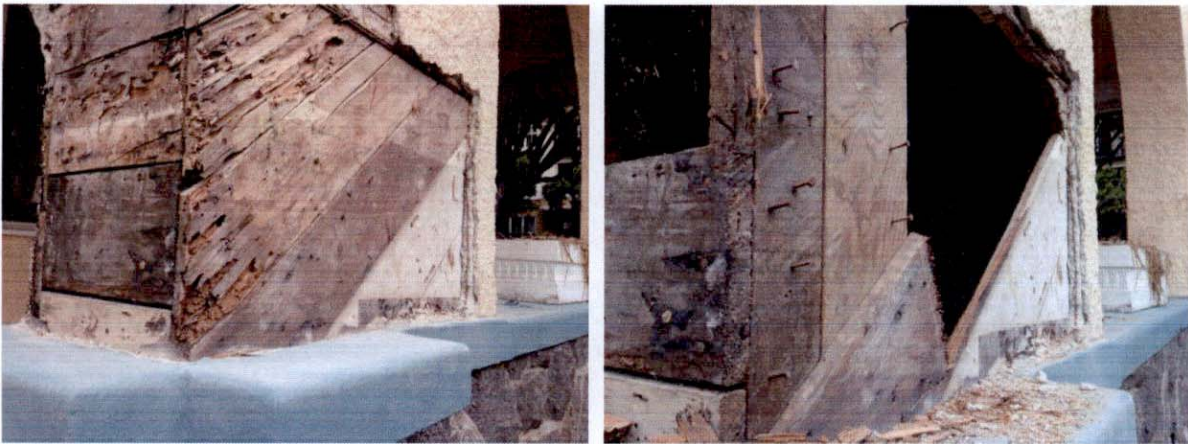
Figures 5 & 6: Termite Damage to Porch Entry Soffit

APPENDIX (cont'd)



cracks and
patched stucco

Figure 7: Cracks at Entry Arch (Looking West)

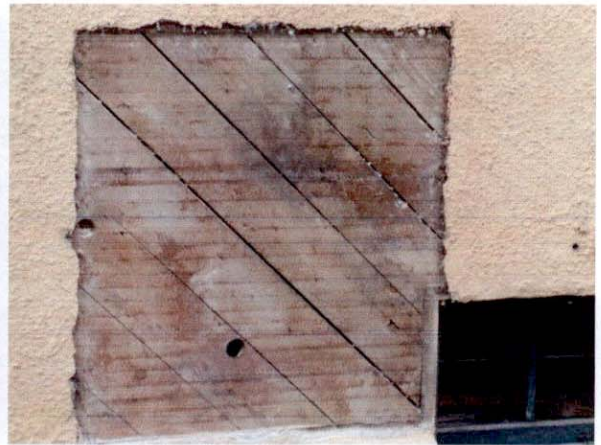


Figures 8 & 9: Termite Damage at Entry Arch (Looking West)

APPENDIX (cont'd)



Figures 10 & 11: Entry Roof (Looking Southwest)



Figures 12 & 13: Exterior Wall (Looking South)

APPENDIX (cont'd)

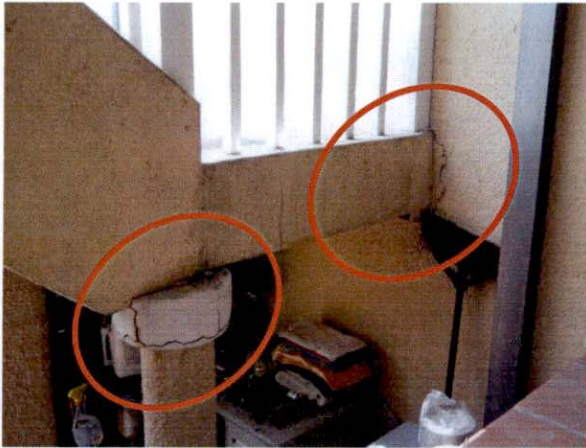


Figures 14 & 15: Crack at Foundation Corner (Looking Southwest)

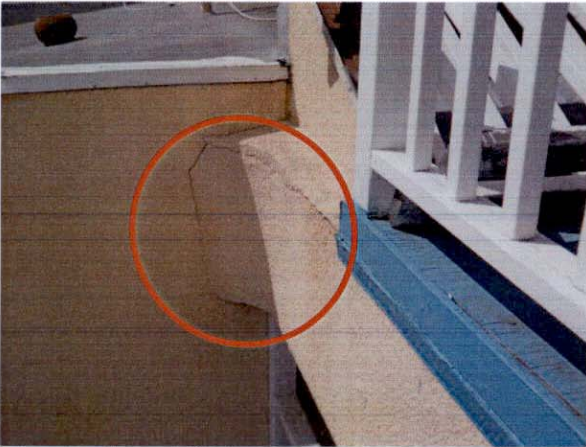


Figure 16: Non-Original Rear Stair and Walkway (Looking West)

APPENDIX (cont'd)



Figures 17 & 18: Damage at Rear Stair & Soffit (Looking East)



Figures 19 & 20: Damage at Rear Stair Landing & Walkway (Looking South & West)



Figures 21 & 22: Damage at Rear Stair & Walkway (Looking North & South)



23 May 2016

Process and Architectural Design Approach | 180 South Euclid Avenue

Summary | Building Evaluation Process and Design Approach

- 1 Council has taken a position the building is not historic and has requested the applicant to study the possibility of preserving the character of the street while re-creating portions of the existing building.
- 2 The exterior plaster at a number of areas was removed to expose concealed conditions. Additional structural and architectural analysis was performed at these areas to determine the condition of the building and the possibility of partial relocation closer to the street.
- 3 Structural
 - a. Conclusions are included in the two structural engineering reports.
- 4 Other Observations
 - a. There appears to be no seismic connectors of the frame to the foundation.
 - b. subfloor posts carrying the girders and joists are resting, unsupported on concrete slab and have no shear transfer to the foundation.
 - c. An intact waterproof membrane was only observed in a few locations. Lack of waterproofing allows moisture to infiltrate the plaster to the wood members.
 - d. The plaster has severe cracks at many areas which exposes the frame to outside conditions.
 - e. There is deterioration at the exposed beams and corbels and wood members.
 - f. It is likely the structure may not sustain any relocation attempts.
 - g. Restoration or renovation likely will require much of the exterior and interior finishes to the basic structural system, replace damaged areas. The work would require meeting structural / seismic as well as building and accessibility requirements.
- 5 Architectural | In order to facilitate a relocation:
 - i. A substantial amount of existing exterior finishes would be removed in order to repair damaged structural systems.
 - ii. The existing non-original porch would need to be demolished as it is concrete over fill with non-original tile and is not sufficiently tied to the existing building. The non-original porch construction should be removed.
 - iii. A substantial amount of interior finishes would need to be removed in order to determine extent of possible concealed damage to the building and to facilitate relocation.
 - iv. The existing structure would need to be cut in to multiple pieces in order move the building to a suitable temporary location,
 - b. Relocating portions of an existing building is not an appropriate preservation policy. Relocating or replicating an existing building becomes an architectural design process rather than a preservation approach. This approach would include removal of the existing structure allowing construction of below grade improvements while re-creating specific existing building elements.

ONYX ARCHITECTS

316 NORTH SIERRA MADRE BOULEVARD PASADENA, CALIFORNIA 91107
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6 Recommendation

- a. Document portions of the existing building through photographs and current condition drawings in order to re-create these elements in a new design – limited to those elements shown on Exhibit A.
- b. Demolish existing residence.
- c. Design new development with re-creation of existing building elements – limited to those elements shown on Exhibit A.
- d. Process design through Design Commission

ONYX ARCHITECTS, INC.

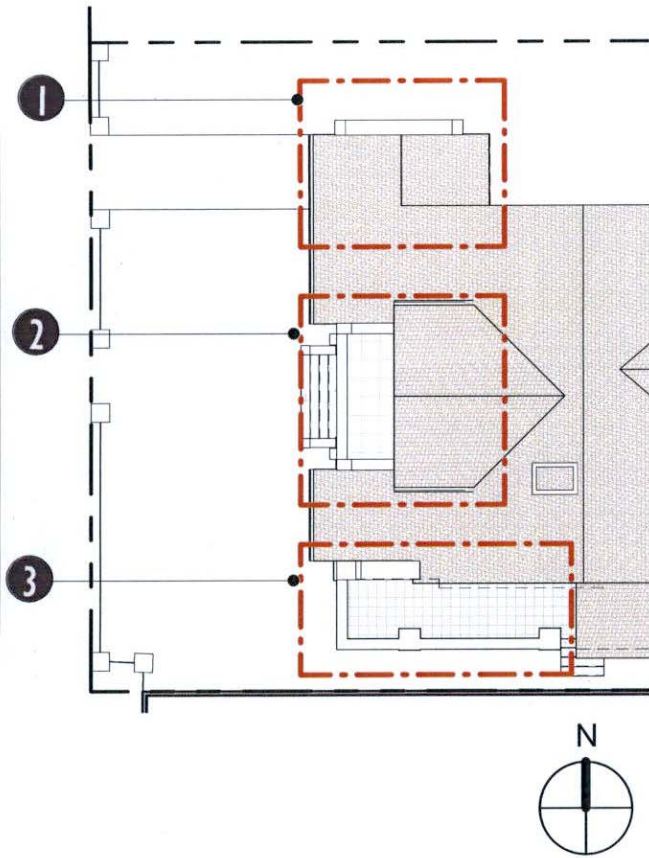
A handwritten signature in black ink, appearing to read 'Dale W. Brown'.

Dale W. Brown AIA | Principal

ONYX ARCHITECTS

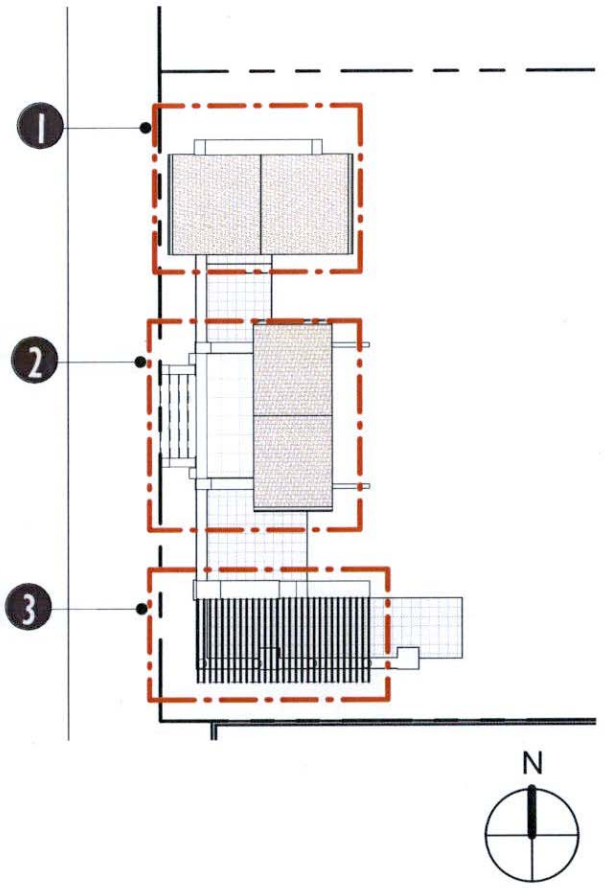
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SOUTHEUCLID AVENUE



① EXISTING STREET FRONTAGE

SOUTHEUCLID AVENUE



② PROPOSED STREET FRONTAGE



③ CONCEPT

KEYNOTES

- ① RE-CREATE A COVERED DRIVE INTO SITE
- ② RE-CREATE MAIN ENTRYWAY FROM PORCH INTO PROPOSED DEVELOPMENT
- ③ RE-CREATE PERGOLA