



PRELIMINARY BUILDING ENCLOSURE AND STRUCTURAL ASSESSMENT

221 NORTH MATHILDA
AVENUE
SUNNYVALE, CA

13 September 2016

SGH Project 167047

SIMPSON GUMPERTZ & HEGER



Engineering of Structures
and Building Enclosures

PREPARED FOR:

SMITHGROUPJJR
301 Battery Street, 7th Floor
San Francisco, CA 94111

PREPARED BY:

Simpson Gumpertz & Heger Inc.
100 Pine Street, Suite 1600
San Francisco, CA 94111
Tel: 415.495.3700
Fax: 415.495.3550

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**PRELIMINARY BUILDING ENCLOSURE AND STRUCTURAL ASSESSMENT
221 NORTH MATHILDA AVENUE
SUNNYVALE, CALIFORNIA**

EXECUTIVE SUMMARY

Simpson Gumpertz & Heger Inc. (SGH) was retained by SmithGroupJJR (SmithGroup) to perform a preliminary conditions assessment of the building enclosure and structure at 221 North Mathilda Avenue. The purpose of our assessment was to determine the overall condition of the existing structural and building enclosure elements as needed to assist in the development of a building preservation plan. Despite severe deterioration in some areas – such as the roof – the majority of the existing structure and building enclosure components appear to be largely intact and suitable for restoration. The roof is composed of several layers of roofing, all of which are beyond their intended service life and in need of replacement. Various sections of the wood soffit below the roof line are missing or deteriorated from water damage and will also require localized replacement. The wood siding and windows located below the eaves require repainting, including the removal of all existing layers of paint and sealants, but are generally in salvageable condition. The wood window sashes are in poorer condition than the surrounding frames and will most likely require removal to be fully restored, if feasible, or replaced in-kind. The exterior and interior wall framing is in generally good condition, however the lack of existing shear panels or other lateral systems poses a potential seismic hazard. Similarly, the existing foundations are constructed from unreinforced brick masonry (URM), which typically performs poorly under seismic loading. The above seismic concerns could be addressed by adding plywood shear panels to the inside face of the existing stud walls and by replacing the existing URM foundations with reinforced concrete.

A summary of identified building envelope conditions requiring maintenance and our associated preliminary recommendations are provided in Table 1.

Table 1 – Conditions Summary

Condition	Photo	Recommendation
1. Extensive roofing deterioration, including multiple layers of roofing shingles and a wooden gutter.		Remove and replace all layers of existing roofing and perimeter flashings.
2. Unreinforced brick masonry chimney. Eroded masonry at exposed portions of brick chimney.		Strengthen or rebuild existing masonry with a reinforced core as required for reducing seismic hazard.
3. Wood decay at gutters and soffits.		Replace missing or severely deteriorated components in-kind.
4. Missing glazing putty, broken lites and localized dry-rot at wood window sashes.		Fully restore or replace deteriorated sashes in-kind.
5. Localized deterioration and alterations to exterior siding and trim.		Restore existing wood siding and trim where feasible and replace localized areas where deteriorated beyond repair.
6. Peeling paint at wood siding and trim.		Remove all existing coatings (including abatement where required) and repaint.

Condition	Photo	Recommendation
7. Concrete stairs and landing at front entrance does not match original building plan or adjacent construction.		Consider reconstructing entrance stairs with wood framing per the original building plan and historic photograph.
8. Partially collapsed wood decking at rear of home. Framing constructed with pressure-treated lumber which is not original to the home.		Remove and replace framing with new deck or access ramp in conjunction with planned restoration.
9. Existing wall framing has no sheathing for lateral load resistance.		Install plywood sheathing shear panels on the interior side of the framing. Upgrade can be concealed behind new interior finishes.
10. URM footings pose potential seismic hazard.		Replace brick footings with reinforced concrete and anchor to seismically-retrofitted wall panels above.

1. INTRODUCTION

Simpson Gumpertz & Heger Inc. (SGH) was retained by SmithGroupJJR (SmithGroup) to perform an initial assessment of the building enclosure and structure at 221 North Mathilda Avenue. We understand the building will be restored as part of the broader property development plan, which is currently in the design and permitting stages. As requested, our assessment includes the exterior envelope and building structure. Given the historic significance of the home, we understand the Secretary of the Interior's Standards will apply. Our assessment did not include a review of the interior, mechanical, electrical, and plumbing conditions which we understand will be addressed separately by SmithGroup. Although potential programming options for the home and levels of possible repair are still in developmental stages, we understand the preliminary redevelopment plans anticipate completing comprehensive repairs to the home as required for repurposing and use on the revitalized site. Based on the above project conditions, we assume the Secretary of the Interior's Standard for Rehabilitation will apply to this portion of the project.

The purpose of our investigation was to evaluate the current condition of the building envelope, including roofing, exterior walls and windows, and structural components to provide preliminary repair recommendations, including considerations for alignment with the Secretary of the Interior Standards. The following report includes a summary of our investigation including reviews of pertinent documents, onsite observations, and our preliminary recommendations for rehabilitation.

1.1 Scope of Assessment

The scope of our assessment included the following tasks:

- Review available documents pertaining to the existing building components and planned renovations, including pertinent architectural and structural drawings.
- Perform a detailed visual survey of the existing building conditions, including roofing, exterior walls and windows, and typical structural details where accessed through exploratory openings.
- Develop as-built drawings for the building structure and exterior.
- Select appropriate areas for cutting and patching to provide a more detailed examination of the concealed existing structure and building envelope components.
- Categorize our preliminary recommendations for the proposed rehabilitation plan.

- We did not perform water testing or other performance testing during this phase of the building evaluation.

2. BACKGROUND

2.1 Building Description

This single-story house was completed in 1906 according to the City of Sunnyvale Heritage Resources Inventory. The structure is wood-framed with a steep-slope roof deck underlying asphalt composite and wood shake shingles. The unreinforced brick foundation provides a crawl space beneath the structure. All elevations of the building are composed of wood teardrop siding on the exterior and plaster on the interior. The windows are wood-framed with single-pane glass.

2.2 Information by Others

2.2.1 Document Review

The following documents were provided to SGH for review:

- Historical and Architectural Evaluation dated 23 June 2015 by Archives & Architecture.
- Property Condition Assessment dated 13 May 2015 by AllWest Environmental.
- Historic building plan included in the above references.

2.2.2 Information from Others

A summary of pertinent information contained in the above reports is provided below:

- Archives & Architecture determined the subject home meets the State of California's and the City of Sunnyvale's criteria to be a designated resource.
- A photo and building plan excerpted from the referenced work by Wolfe & McKenzie show what is believed to be the original front porch and staircase on the east elevation. The plan also references a rear staircase that differs from the current construction at this location.
- Allwest's Property Condition Assessment report classified the structural condition as "Poor". AllWest categorizes a poor rating as uniformly rundown in appearance with damaged building features.

3. FIELD OBSERVATIONS

SGH engineers visited the site on 25 and 26 February 2016 to survey and document the existing conditions of the building envelope and structural components (Photos 1 – 4). Our field investigation included visual survey of the exterior facade and investigative openings to determine as-built construction. All openings were performed with the assistance of South Bay Construction.

3.1 Building Enclosure

3.1.1 Roofing

We observed the following roofing conditions:

- Deteriorated and missing shingles at various locations throughout the steep-slope roof. We observed three different shingle types, including two varieties of composite asphalt single and wood shake roofing beneath them (Photo 5).
- Wood shake is also visible from within the attic and is the first layer of roofing installed over the skip sheathing. The sheathing is not continuous and there is no underlayment (Photo 6).
- Staining on the wood framing below the roof level. Numerous buckets have been placed within the attic space below the roof to capture water entering through the roof (Photo 6).
- Damage and staining on the interior ceiling finishes in several locations (Photo 7).
- Severely deteriorated wood gutter that is severely dry-rotted and has fallen off the structure in various locations (Photo 8).
- Missing mortar and deteriorated flashings at the brick chimney above the roofline (Photo 9).
- Damaged or missing rain water leaders in some locations. They appear to be painted galvanized sheet metal (Photo 11).

3.1.2 Exterior Walls and Windows

We observed the following typical exterior conditions (Refer to Photo 10 for a summary of typical exterior features):

- There is a concrete stairway and landing at the front entrance (Photo 1). The design and detailing of the stairs does not match the adjacent construction.
- Localized areas with damaged or missing soffits (Photos 12 and 13).

- Peeling paint on the wood siding and trim at all elevations (Photos 14 – 16). Generally, we did not observe deterioration or wood rot to the siding, although there are some localized exceptions.
- Peeling paint and failed sealants at various window frames and sashes (Photo 17); however, wood frames are generally sound with only localized deterioration or dry-rot.
- Separate joinery at sashes, and localized dry-rot and missing trim (Photos 18 – 20).
- Deteriorated or missing glazing putty. Several lites are broken or missing glazing (Photo 20).
- Some windows have awning style screens attached from the exterior (Photo 21). The screens are missing in some windows (Photo 22).
- There is a window and door frame located on the east elevation with moldings that do not match the typical window details used elsewhere throughout the home (Photo 23).
- Severely deteriorated wood deck on the north elevation. It is in a partial state of collapse and constructed in places with pressure treated lumber (Photo 24).
- The exterior wall framing is generally in sound condition with little or no evidence of dry-rot or other notable defects observed at the test openings (Photos 25 – 28).
- Lack of a weather barrier and internal wall flashings behind the wood siding. There is no insulation.

3.2 Structural

3.2.1 General

We observed the following conditions pertaining to the structural system (Photos 29 – 31):

- The framing members are generally sound and in good condition.
- Walls are typically framed with 2x4 studs.
- The framing lumber is typically rough sawn.
- The lateral load-resisting system consists of straight-sheathed diaphragms and wood stud walls sheathed with straight siding and/or gypsum plaster over wood lath in conjunction with some diagonal let-in bracing.

3.2.2 Roof and Ceiling

We observed the following conditions pertaining to the roof framing and ceiling:

- Roof framing consists of 1x6 spaced, straight sheathing over 2x4 rafters spaced at approximately 24 in. on center. There is a 2x4 vertical or diagonal kicker under alternating rafters. The base of the kickers is generally located over an interior wall below, but in some locations the kickers are supported on ceiling joists.
- Ceiling framing consists of 2x4 joists at approximately 16 in. on center. The joists rest on top the interior wall top plate and on 1x ribbon members let into the exterior wall studs.
- The ceiling joists frame into the exterior walls approximately 2 ft below the roof rafters.

3.2.3 First Floor and Crawl Space

We observed the following conditions pertaining to the first floor and foundations:

- First floor framing consists of tongue and groove sheathing over 2x8 joists, which span between the walls at the exterior and 6x6 girders on the interior. The girders are supported on wood posts.
- Two floor joists have been cut to make space for the heater unit in the crawl space.
- The first floor is elevated over a crawl space and is supported on ~3 ft tall cripple walls. The height of the crawl space varies from approximately 4 ft to approximately 6 ft.
- The cripple wall on the southwest corner of the building leans approximately 2° out of plumb.
- Foundations consist of URM footings or isolated brick masonry pier blocks.
- The stud walls are not bolted to the brick foundations.

4. DISCUSSION

4.1 Building Enclosure

4.1.1 Roofing

There are pervasive signs of staining and localized deterioration below the roof level, particularly at the eaves. There are also a large number of buckets and cans placed within the attic space below the roof, suggesting leakage has been ongoing for some time. The roof should be replaced in order to protect the house from further deterioration. While the original roof type is not known, consideration should be given to replacing with wood shake which is located below the composite shingle overlay. Use of a wood shake roof will require consideration of the local fire code requirements, which may limit the use of combustible materials for roofing or require the use of fire retardants, etc.

The wood gutter should be replaced where missing or severely deteriorated to match the existing ogee profile. We also recommend the gutter be lined with a protective flashing or coating to enhance the durability of the rebuilt materials. We are unsure if the galvanized sheet metal rain water leaders are original, however, based on their condition, we recommend replacing these elements to ensure the rain water system will perform effectively.

The brick chimney extending through the roof also displays signs of disrepair. Our visual survey did not include access to closely observe the chimney; however, from the ground it is apparent the missing and severely deteriorated mortar between the brick is a direct result from long-term weathering (and lack of maintenance). The chimney is believed to be unreinforced brick masonry and, therefore, will warrant structural strengthening or reconstruction to reduce the risks of damage (or collapse) in an earthquake.

The large overhangs provided by the roof eave offers good protection for most of the soffit except for the gutter and wood fascia located near the face of the eave. With less protection, the ends of the panels are in worse condition than sheltered members near the dentil. Some localized replacement of the soffit panels will be required.

4.1.2 Exterior Walls and Windows

The teardrop wood siding is in relatively good condition considering the age of the building. From our investigative openings, we confirmed the exterior wall construction does not include a weather

barrier or insulation, which is typical for construction of this period and location. Uninsulated walls with no sheathing and lap siding provide a high drying potential; thus, small amounts of water infiltrating the wall cavity have the opportunity to evaporate before causing permanent damage to the structure. Many buildings constructed in the Bay Area around this time were built with decay resistant wood species, such as redwood, which may also help explain the lack of dry-rot and other deterioration which was not present within the various wall openings we conducted. Since the high drying potential of this particular assembly is most likely contributing to the successful performance of the building, we do not recommend altering the original exterior wall design from a building enclosure perspective.

Similarly, the window frames generally appear to be in relatively sound condition and suitable for restoration. However, the window sashes and associated glazing is in generally much poorer condition, with split joinery and failed glazing putties occurring throughout. Based on our observations, it may be feasible to restore the existing window frames in-place; however, this assumption requires further assessment and confirmation by a window restoration subcontractor. The sashes will most likely require removal for comprehensive restoration, or replacement if repairs to the existing materials are determined to be impractical.

There is an existing window and door on the north elevation that is not shown in the original floor plan (see Appendix C). Furthermore, the moldings at these elements do not match the typical detailing of the home. From these observations, it appears the above-mentioned window and door is likely part of a renovation that took place after original construction. Consideration should be given to removing later modifications and restoring the house to its original fenestration design.

The deteriorated wood deck at the rear of the home is built from pressure treated wood which was not available at the time of the original construction. Furthermore, the original floor plan indicates a small stairway where the deck is currently. Based on these observations, we do not believe the rear deck was original to the home and appears to be an undocumented alteration.

4.2 Structural

We evaluated the primary structural framing elements. We used current building code loads and allowable lumber stress in our evaluation. We estimated the lumber grade based on visual observation, but did not grade it according to lumber grading standards.

We found the following elements structurally deficient:

- Typical roof rafters without kickers.
- Ceiling joists carrying kickers.
- Kickers supporting roof rafters.
- Some of the first floor girders.

The deficiencies we found are not uncommon for houses and other small, light-framed structures of this vintage. Framing was generally done empirically (seat-of-the pants).

5. CONCLUSIONS

5.1 Building Enclosure

Based on our observations during the visual survey and investigative openings, we conclude the following:

- The roof is deteriorated to the extent it requires removal and replacement. The replacement should include insulation and meet applicable fire codes for a historic restoration.
- The gutter requires complete removal and replacement. The attached rain water leaders should be replaced as well to ensure a reliable rain water collection system.
- The soffit will require partial removal and replacement. We project approximately 30% of the soffit will require replacement while the rest will require exterior coating repair to be performed in place.
- The wall cladding is performing adequately in the current condition. The exterior finish requires comprehensive removal of all existing coatings and sealants as required for repainting.
- The windows are largely salvageable; however, new sashes and glazing may be required to address damage.
- The concrete stairs and landing at the front of the home appears to be an undocumented alteration and not part of the original home design.
- The wood deck located at the rear of the home is in poor condition and should be demolished or replaced. There is currently not enough documentation available to determine the details of the original rear porch and stairway.

5.2 Structural

We formed the following conclusions pertaining to the framing of the building:

- The existing unreinforced brick footings pose a seismic hazard and should be upgraded to reduce this risk to the asset.
- All typical roof rafters require intermediate support via new kickers or posts.
- The existing ceiling joists are inadequate for carrying the loads from the roof kickers.
- The exterior stud walls are adequate as-is for vertical loads, but require structural sheathing to provide lateral resistance under seismic loads.

6. PRELIMINARY RECOMMENDATIONS

6.1 Building Enclosure

The following repair scope summarizes our recommendations for replacing the roof and restoring the cladding system.

6.1.1 Roofing Systems

We have the following preliminary recommendations pertaining to roofing:

- Remove all layers of existing roofing to expose the skip sheathing and make necessary framing repairs.
- Install 1/2 in. plywood sheathing over restored roof framing, as required for application of a waterproofing underlayment.
- Install new roofing system, perimeter flashings and wood gutters in-kind with existing. Assume a fire retardant wood shake roofing system installed over ventilated cribbing per the recommendations of the Wood Shake Manual. An example of the recommended assembly is provided in Appendix C.2. The use of a wood shake roofing system will require review and approval with the local fire code, which is beyond the scope of this assessment.
- Replace sheet metal flashings at brick chimney and repoint all exposed mortar joints above the flashings 100%. Consider sheet metal chimney cap (or spark arrestor) subject to review and approval by City Planning.

6.1.2 External Walls and Windows

We have the following preliminary recommendations pertaining to the exterior walls and windows:

- Remove all layers of existing coatings and sealants as required to expose exterior wood siding and trim for restoration. Test for potentially hazardous materials and perform abatement as specified (by others).
- Restore areas of dry-rot and other damage with an appropriate exterior-grade wood patching compound suitable for painting. Remove and replace in-kind isolated areas of wood siding and trim that are beyond repair.
- Repair and repaint existing window frames. Remove sashes as required for comprehensive refurbishment of wood framing, glazing putties, and damaged or missing lites. We recommend retaining a window restoration specialist to assist the project team in determining the feasibility of restoring the existing sashes or if replacement in-kind will be required where original. Consider either restoring or infilling the non-matching window and door located on the east elevation.

- Consider reconstructing the front entry stairs with a wood framed staircase in-kind with the original architectural plan for the home.
- Prime and paint all exterior wood siding and trim. Assume an exterior-grade primer and two-coat acrylic finish system.

6.2 Structural

Following our structural evaluation, we recommend the following work be performed to strengthen the structure:

- Provide new concrete foundations. A concrete stem wall should replace the existing brick wall foundation in the crawl space. See S201.
- Add framing at heater opening at first level. A frame should be provided around the heater unit in the crawl space to properly close the opening. See S202.
- Add 1/2 in. plywood sheathing along the inside faces of the cripple walls and the first floor/attic exterior walls. See S202.
- Add 1/2 in. plywood sheathing placed directly over the existing 1x6 boards at roof. See S204.
- Replace existing roof kickers with 4x4 posts at approximately 8 ft on center. The posts should support all typical roof rafters. See A305.
- Add 3-1/2x16 LVL beams at each end of 4x4 roof posts. See A305.
- Add steel sleeve along the inside of the unreinforced brick chimney.

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APPENDIX A

Photographs



South elevation of the building.



Photo 2

East elevation of the building.



West elevation of the building.



Photo 4

Northwest corner of the building where the stair entrance to the deck is located.



Roofing consists of asphalt singles over wood shake over steep sloped wood framing.

Note wood gutter located at lower right.



Photo 6

Staining on the wood and numerous buckets placed in attic below roofing.



Interior damage due to water intrusion through the roof.



Photo 8

A location where the wood gutter and fascia had fallen off the structure.

The brick chimney has missing or deteriorated mortar.



Photo 9

East elevation of the building.

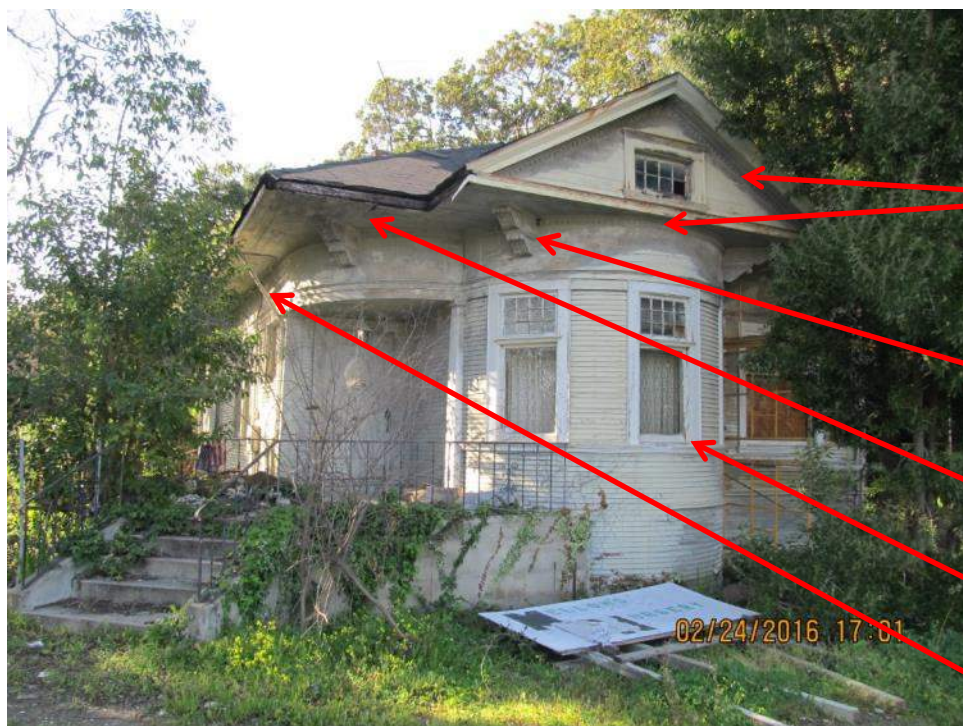
The wood dentil occurs below the soffit on all elevations and along the attic line on the east elevation.

Decorative brackets only located on the east elevation.

Wood soffit.

Wood framed windows with single pane glazing.

Rainwater leaders.





Damaged rainwater leader. Several rainwater leaders are missing.



Photo 11

Soffit damage requiring repair.



Sections of the gutter, fascia and soffit construction has fallen off in various locations.



Photo 13

The paint is chipping on the decorative brackets.

Note sheet metal patch installed over portion of bracket.



The wood dentil appears to be in good condition, requiring only localized refurbishment and repainting.



Photo 15

The exterior coating is peeling off the wood siding.



The window framing is in good condition.



Photo 17

Joinery in operable window sash is separating.



Missing and deteriorated glazing putty.



Photo 19

A window with a missing lite that will require replacement.



Some windows have awning screens installed to the exterior.

At other locations, there are no screens or they are missing.



Photo 21

Some screens have fallen off the building due to deterioration of the external bracket fixing them in place.



A window and door with trim that does not match the typical details used elsewhere on the home.



Photo 23

The wood stairs to the deck are severely deteriorated.



Investigative building
envelope opening
location 1.

Investigative building
envelope opening
location 2.



Photo 25

Interior view of
investigative building
envelope opening
location 1.

Investigative opening
shows wall cavity is in
good condition.



Photo 27

Interior view of
investigative building
envelope opening
location 2.





Investigative structural opening location 1.
Reference Appendix B for location.



Photo 29

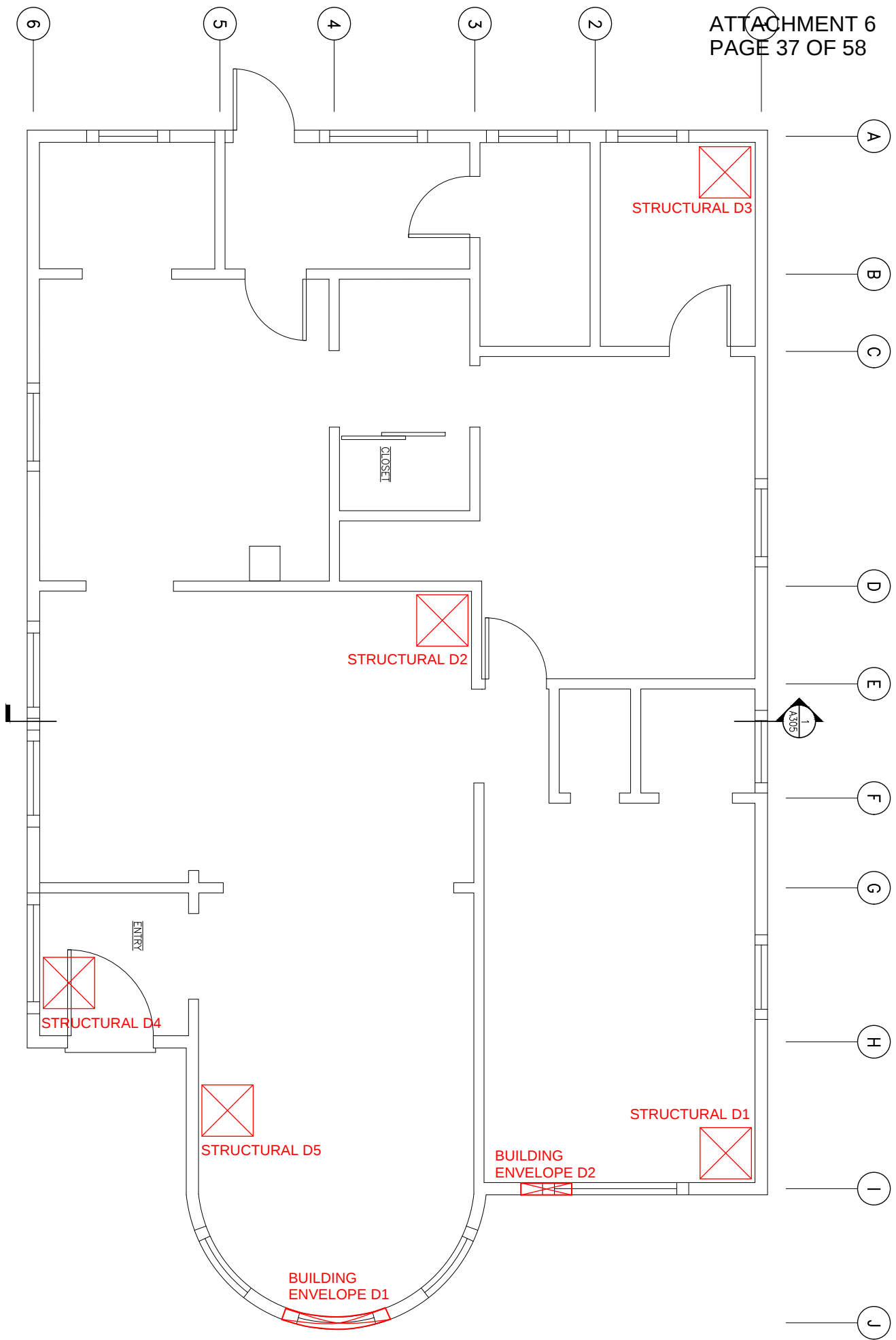
Investigative structural opening location 3.
Reference Appendix B for location.



Investigative structural opening location 4. Reference Appendix B for location.

APPENDIX B

Destructive Testing Reference Plan



1

FIRST FLOOR PLAN

APPROX. SCALE: 3/8"=1'-0", V.I.F.

APPENDIX C

C.1

Schematic Repair Recommendations

- 1

REMOVE ALL LAYERS OF (E) ROOFING AND INSTALL (N) FIRE-TREATED CEDAR SHAKE ROOFING SYSTEM:
A) FIRE TREATED WOOD SHAKE
B) 1" NAILING STRIP
C) 2" x 4" SPACERS 16" O.C.
D) WATERPROOF UNDERLAYMENT
E) 1/2" PLYWOOD SHEATHING (SEE S204)

2

REMOVE AND REPLACE WOODEN GUTTER TO MATCH EXISTING (LINE WITH WATERPROOFING COATING - KEMPER SYSTEM 2K-PUR).

3

CONCRETE STAIR LANDING (SUSPECTED NON-ORIGINAL).

4

REPOINT (E) BRICK MASONRY CHIMNEY 100% AND INSTALL SHEET METAL CAP FLASHING (SEE A305 FOR ADDITIONAL STRUCTURAL REQUIREMENTS) OR RECONSTRUCT IF REQUIRED FOR RELOCATION.

5

REMOVE AND REPLACE LOCALIZED DAMAGED SOFFIT SHEATHING (ASSUME ~30%).

6

REMOVE ALL LAYERS OF (E) WALL COATINGS TO EXPOSE EXISTING WOOD FINISHES. PERFORM LOCALIZED SIDING REPLACEMENT (ASSUME ~10%) AND REPAINT ALL LOCATIONS (ASSUME PRIME COAT AND 2 FINISH COATS).

7

REMOVE AND REPLACE (E) RAINWATER LEADERS TO MATCH (E), ASSUME PAINTED GSM.

8

REMOVE, RESTORE AND REINSTALL (E) WINDOW FRAMES AND SASHES, INCLUDING NEW LITES (WHERE REQUIRED), GLAZING PUTTY AND PAINT. WHERE SASHES ARE DAMAGED BEYOND REPAIR, REPLACE IN-KIND WITH (E).

9

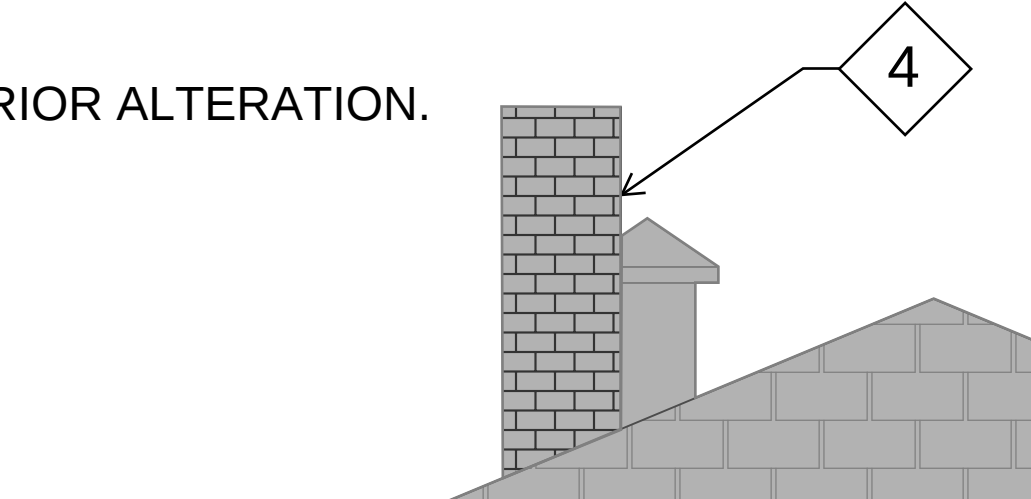
DEMO (E) URM FOUNDATION AND REPLACE WITH (N) REINFORCED CONCRETE STRUCTURE ANCHORED TO (N) INTERIOR SHEAR WALLS.

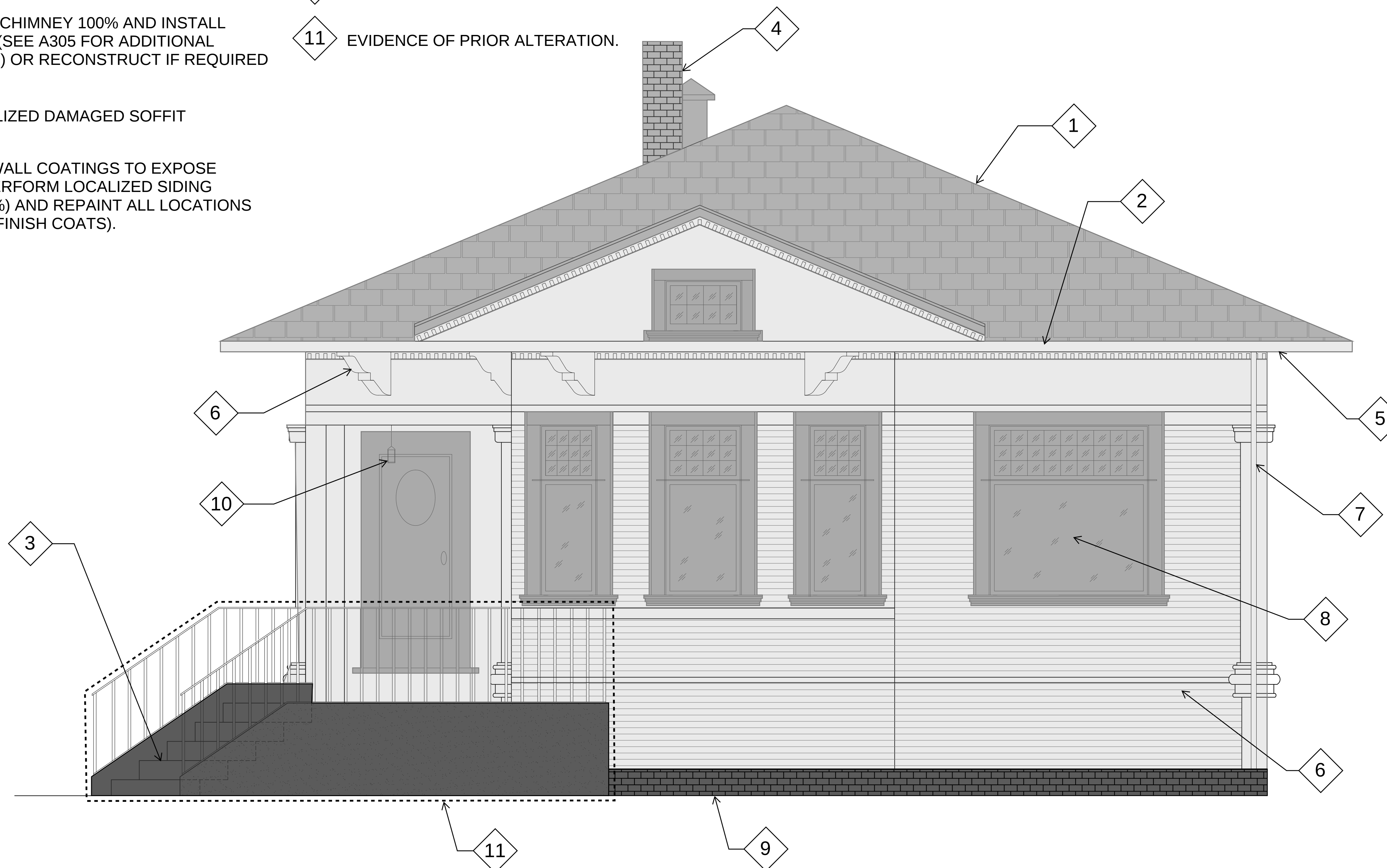
10

LIGHT FIXTURE (UNKNOWN ORIGIN).

11

EVIDENCE OF PRIOR ALTERATION.





1 EAST ELEVATION

SCALE: 1/2"=1'-0"

SIMPSON GUMPERTZ & HEGER
Engineering of Structures
and Building Enclosures

Simpson Gumpertz & Heger Inc.
100 Pine Street, Suite 1600
San Francisco, California 94111
main: 415.495.3700 fax: 415.495.3550
www.sgh.com

Boston
Los Angeles
New York
San Francisco
Washington, DC

Consultant

	03/29/16	PROGRESS	
No.	Date	Description	By

221 NORTH MATHILDA PRELIMINARY BUILDING ASSESMENT

221 N. MATHILDA AVE.
SUNNYVALE, CA 94086

Project

EAST ELEVATION

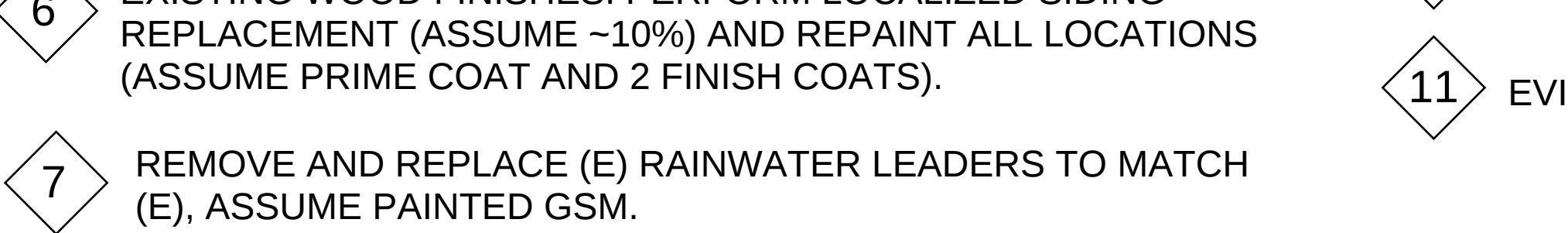
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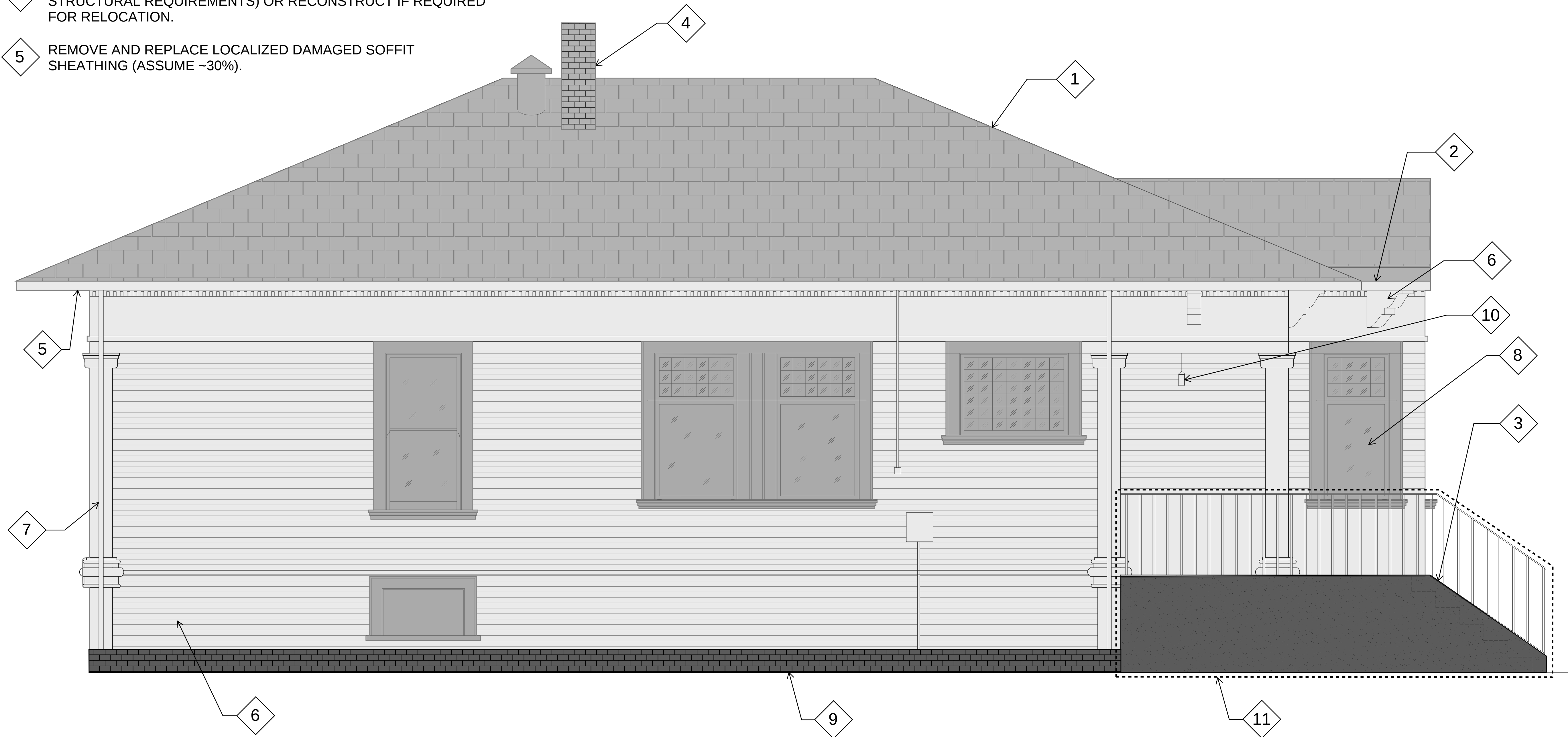
Commission 167047.00	Checked LJD/JEM	Date 03/29/16
Drawn PA	Approved KAK	Scale 1/2" = 1'-0"

	Drawing No	
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A301

- | | | |
|---|--|---|
| <p>1 REMOVE ALL LAYERS OF (E) ROOFING AND INSTALL (N) FIRE-TREATED CEDAR SHAKE ROOFING SYSTEM:
A) FIRE TREATED WOOD SHAKE
B) 1" NAILING STRIP
C) 2" x 4" SPACERS 16" O.C.
D) WATERPROOF UNDERLAYMENT
E) 1/2" PLYWOOD SHEATHING (SEE S204)</p> <p>2 REMOVE AND REPLACE WOODEN GUTTER TO MATCH EXISTING (LINE WITH WATERPROOFING COATING - KEMPER SYSTEM 2K-PUR).</p> <p>3 CONCRETE STAIR LANDING (SUSPECTED NON-ORIGINAL).</p> <p>4 REPOINT (E) BRICK MASONRY CHIMNEY 100% AND INSTALL SHEET METAL CAP FLASHING (SEE A305 FOR ADDITIONAL STRUCTURAL REQUIREMENTS) OR RECONSTRUCT IF REQUIRED FOR RELOCATION.</p> <p>5 REMOVE AND REPLACE LOCALIZED DAMAGED SOFFIT SHEATHING (ASSUME ~30%).</p> | <p>6 REMOVE ALL LAYERS OF (E) WALL COATINGS TO EXPOSE EXISTING WOOD FINISHES. PERFORM LOCALIZED SIDING REPLACEMENT (ASSUME ~10%) AND REPAINT ALL LOCATIONS (ASSUME PRIME COAT AND 2 FINISH COATS).</p> <p>7 REMOVE AND REPLACE (E) RAINWATER LEADERS TO MATCH (E), ASSUME PAINTED GSM.</p> <p>8 REMOVE, RESTORE AND REINSTALL (E) WINDOW FRAMES AND SASHES, INCLUDING NEW LITES (WHERE REQUIRED), GLAZING PUTTY AND PAINT. WHERE SASHES ARE DAMAGED BEYOND REPAIR, REPLACE IN-KIND WITH (E).</p> <p>9 DEMO (E) URM FOUNDATION AND REPLACE WITH (N) REINFORCED CONCRETE STRUCTURE ANCHORED TO (N) INTERIOR SHEAR WALLS.</p> | <p>10 LIGHT FIXTURE (UNKNOWN ORIGIN).</p> <p>11 EVIDENCE OF PRIOR ALTERATION.</p> |
|---|--|---|





HST_A200

1 SOUTH ELEVATION

SCALE: 1/2"=1'-0"

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	03/29/16	PROGRESS	
No.	Date	Description	By

221 NORTH MATHILDA PRELIMINARY BUILDING ASSESMENT

221 N. MATHILDA AVE.
SUNNYVALE, CA 94086

Project

SOUTH ELEVATION

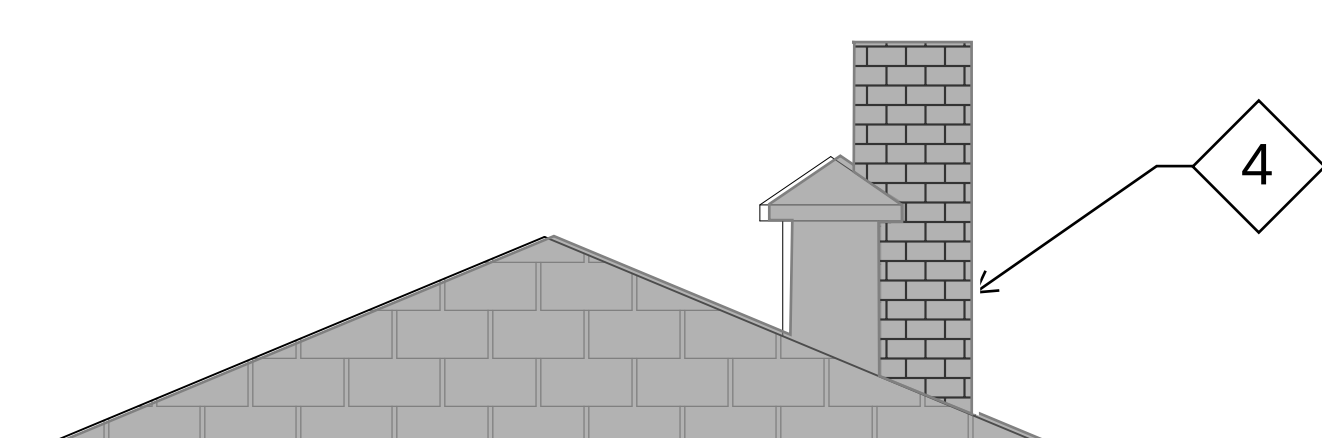
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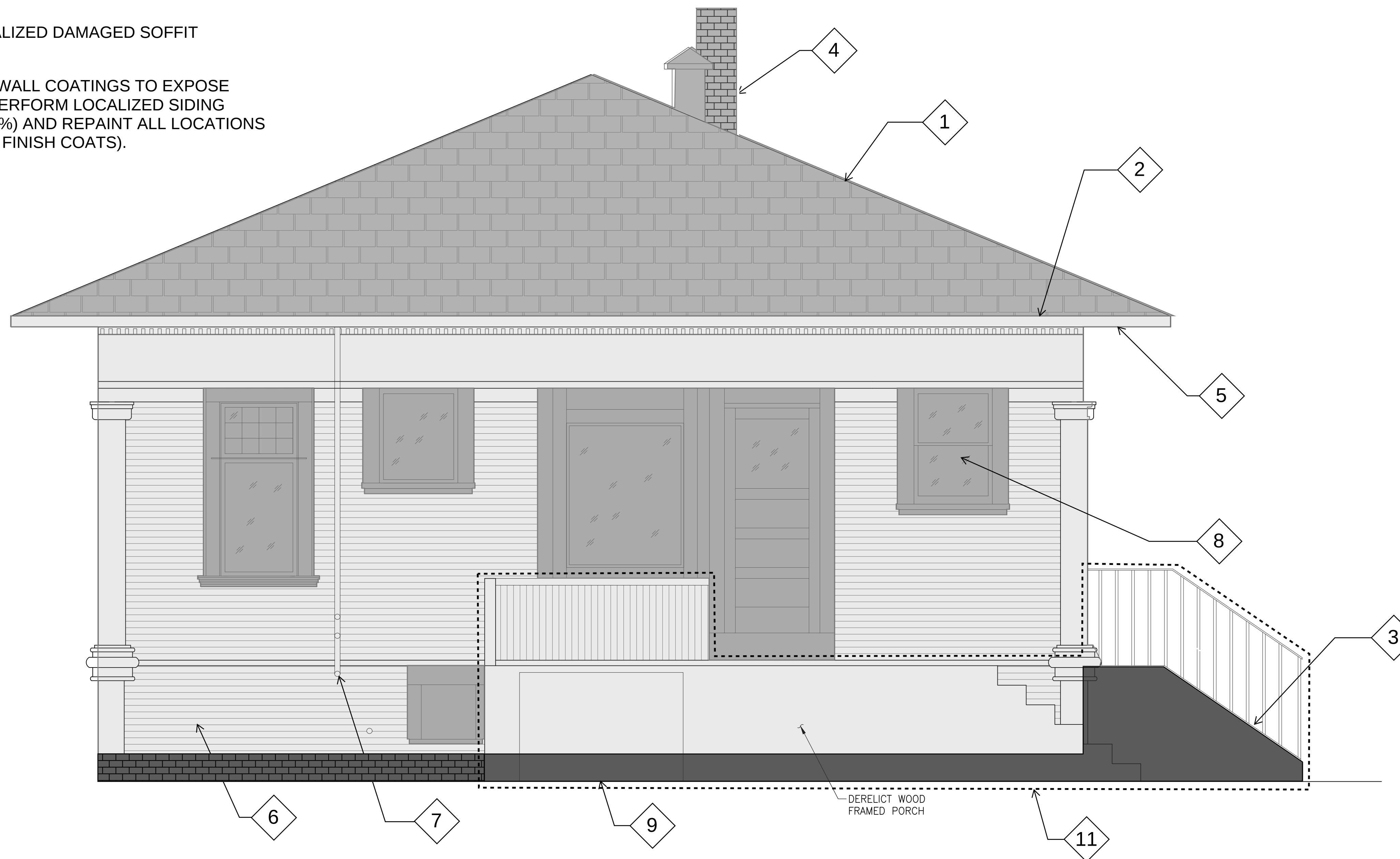
Commission 167047.00	Checked LJD/JEM	Date 03/29/16
Drawn PA	Approved KAK	Scale 1/2"=1'-0"

	Drawing No	
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A302

- | | |
|--|---|
| <p>1 REMOVE ALL LAYERS OF (E) ROOFING AND INSTALL (N) FIRE-TREATED CEDAR SHAKE ROOFING SYSTEM:
A) FIRE TREATED WOOD SHAKE
B) 1" NAILING STRIP
C) 2" x 4" SPACERS 16" O.C.
D) WATERPROOF UNDERLAYMENT
E) 1/2" PLYWOOD SHEATHING (SEE S204)</p> <p>2 REMOVE AND REPLACE WOODEN GUTTER TO MATCH EXISTING (LINE WITH WATERPROOFING COATING - KEMPER SYSTEM 2K-PUR).</p> <p>3 CONCRETE STAIR LANDING (SUSPECTED NON-ORIGINAL).</p> <p>4 REPOINT (E) BRICK MASONRY CHIMNEY 100% AND INSTALL SHEET METAL CAP FLASHING (SEE A305 FOR ADDITIONAL STRUCTURAL REQUIREMENTS) OR RECONSTRUCT IF REQUIRED FOR RELOCATION.</p> <p>5 REMOVE AND REPLACE LOCALIZED DAMAGED SOFFIT SHEATHING (ASSUME ~30%).</p> <p>6 REMOVE ALL LAYERS OF (E) WALL COATINGS TO EXPOSE EXISTING WOOD FINISHES. PERFORM LOCALIZED SIDING REPLACEMENT (ASSUME ~10%) AND REPAINT ALL LOCATIONS (ASSUME PRIME COAT AND 2 FINISH COATS).</p> | <p>7 REMOVE AND REPLACE (E) RAINWATER LEADERS TO MATCH (E), ASSUME PAINTED GSM.</p> <p>8 REMOVE, RESTORE AND REINSTALL (E) WINDOW FRAMES AND SASHES, INCLUDING NEW LITES (WHERE REQUIRED), GLAZING PUTTY AND PAINT. WHERE SASHES ARE DAMAGED BEYOND REPAIR, REPLACE IN-KIND WITH (E).</p> <p>9 DEMO (E) URM FOUNDATION AND REPLACE WITH (N) REINFORCED CONCRETE STRUCTURE ANCHORED TO (N) INTERIOR SHEAR WALLS.</p> <p>10 LIGHT FIXTURE (UNKNOWN ORIGIN).</p> <p>11 EVIDENCE OF PRIOR ALTERATION.</p> |
|--|---|





WEST ELEVATION

SCALE: 1/2"=1'-0"

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WEST ELEVATION

Drawing Title

Commission 167047.00	Checked LJD/JEM	Date 03/29/16
Drawn PA	Approved KAK	Scale 1/2" = 1'-0"

	Drawing No	
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A303

- 1

REMOVE ALL LAYERS OF (E) ROOFING AND INSTALL (N) FIRE-TREATED CEDAR SHAKE ROOFING SYSTEM:
A) FIRE TREATED WOOD SHAKE
B) 1" NAILING STRIP
C) 2" x 4" SPACERS 16" O.C.
D) WATERPROOF UNDERLAYMENT
E) 1/2" PLYWOOD SHEATHING (SEE S204)

2

REMOVE AND REPLACE WOODEN GUTTER TO MATCH EXISTING (LINE WITH WATERPROOFING COATING - KEMPER SYSTEM 2K-PUR).

3

CONCRETE STAIR LANDING (SUSPECTED NON-ORIGINAL).

4

REPOINT (E) BRICK MASONRY CHIMNEY 100% AND INSTALL SHEET METAL CAP FLASHING (SEE A305 FOR ADDITIONAL STRUCTURAL REQUIREMENTS) OR RECONSTRUCT IF REQUIRED FOR RELOCATION.

5

REMOVE AND REPLACE LOCALIZED DAMAGED SOFFIT SHEATHING (ASSUME ~30%).

6

REMOVE ALL LAYERS OF (E) WALL COATINGS TO EXPOSE EXISTING WOOD FINISHES. PERFORM LOCALIZED SIDING REPLACEMENT (ASSUME ~10%) AND REPAINT ALL LOCATIONS (ASSUME PRIME COAT AND 2 FINISH COATS).

7

REMOVE AND REPLACE (E) RAINWATER LEADERS TO MATCH (E), ASSUME PAINTED GSM.

8

REMOVE, RESTORE AND REINSTALL (E) WINDOW FRAMES AND SASHES, INCLUDING NEW LITES (WHERE REQUIRED), GLAZING PUTTY AND PAINT. WHERE SASHES ARE DAMAGED BEYOND REPAIR, REPLACE IN-KIND WITH (E).

9

DEMO (E) URM FOUNDATION AND REPLACE WITH (N) REINFORCED CONCRETE STRUCTURE ANCHORED TO (N) INTERIOR SHEAR WALLS.

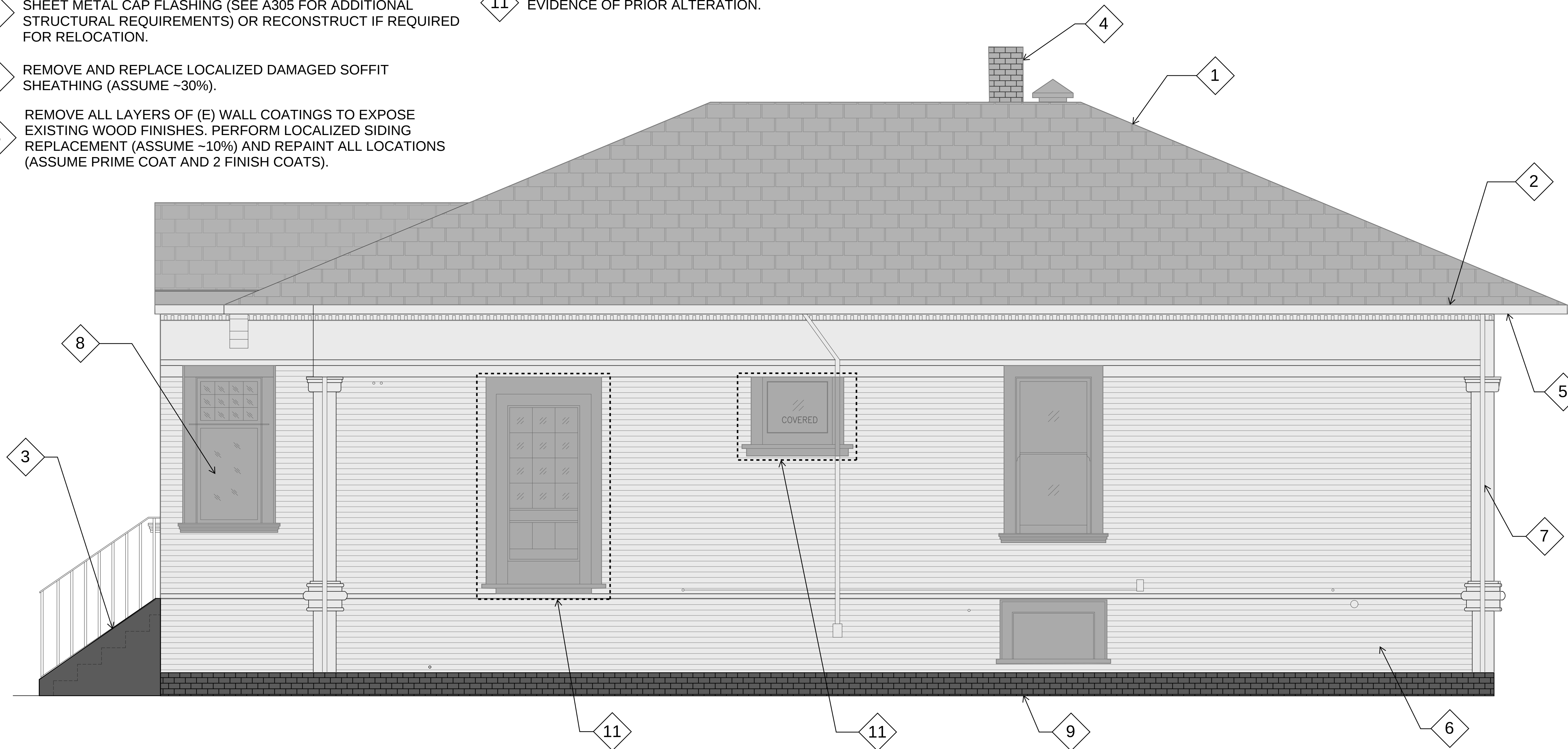
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LIGHT FIXTURE (UNKNOWN ORIGIN).

11

EVIDENCE OF PRIOR ALTERATION.





200 1 NORTH ELEVATION

SCALE: 1/2"=1'-0"

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No.	Date	Description	Balance

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Project

NORTH ELEVATION

Drawing Title

Commission 167047.00	Checked LJD/JEM	Date 03/29/16
Drawn PA	Approved KAK	Scale 1/2" = 1' - 0"

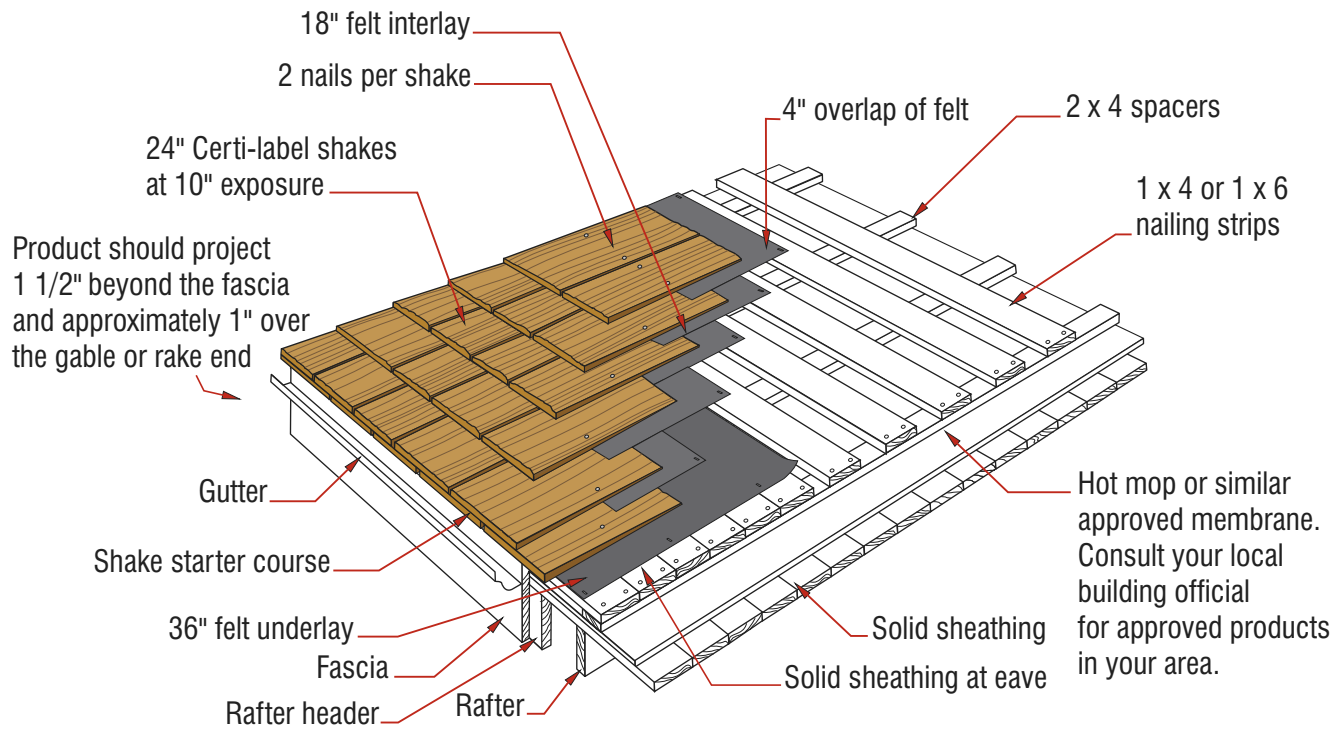
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A304

C.2

Schematic Wood Shake Roofing Detail

APPENDIX C - SCHEMATIC WOOD SHAKE ROOFING ASSEMBLY



*Excerpt from Cedar Shake and Shingle Bureau: Design and Application Manual

APPENDIX D

Existing Plan and Exterior Elevation Drawings

221 NORTH MATHILDA

PRELIMINARY BUILDING ASSESSMENT

221 N. MATHILDA AVE.,
SUNNYVALE, CA 94086

General Notes

1. Perform all work in compliance with any applicable codes, laws and regulations of all regulating agencies which have authority over any portion of the work, including the State of California Division of Industrial Safety. Coordinate work with requirements set forth in the project manual. If conflicts exist in the contract documents, contact Simpson Gumpertz & Heger Inc. (SGH) immediately for clarification.
2. Verify all dimensions, property lines, measurements and conditions in the field before beginning work. Bring any discrepancies, errors or omissions to the attention of SGH immediately.
3. Unless otherwise noted, all angles are to be right angles, all lines which appear parallel to be parallel and all items which appear centered to be centered. Contractor to be responsible for maintaining all lines true, level, plumb and square.
4. Contractor to become acquainted with all utilities, pipes and structures. Should utilities, pipes and structures not shown on the plans be found during construction, promptly notify owner's representative. Failure to do so will make contractor liable for any and all damage arising from operations subsequent to discovery of utilities, pipes and structures.
5. Owner's representative to review all layout in the field prior to construction.
6. Properly and permanently secure all attachments, connections or fasteners in conformance with the best practices of the building industry. Drawings show only special requirements to assist the contractor and do not show every detail.
7. Details shown in these drawings are typical and apply unless otherwise noted or shown. Not all conditions are fully detailed; employ similar construction methods for these conditions.
8. The project specifications form a part of the contract documents.
9. Specifications, codes and standards noted in the contract documents shall be of the latest edition, unless otherwise noted.
10. Dimensions shall not be scaled off of the drawings.
11. All work shall conform to minimum standards of the 2013 California Building Code, of any codes listed in the drawings or specifications and of any regulating agencies which have authority over any portion of the work, including the State of California Division of Industrial Safety.
12. Manufactured materials shall be approved prior to their use. All requirements of those approvals shall be followed.
13. Openings, pockets, etc. shall not be placed in structural members unless specifically detailed on the structural drawings. Notify the structural engineer when work requires openings, pockets, etc. in structural members not shown on the structural drawings.
14. The contractor shall be responsible for coordinating the work of all trades and shall check all dimensions and holes and openings required in structural members. All discrepancies shall be called to the attention of the engineer and shall be resolved before proceeding with the work.
15. The contract documents represent the finished structure. They do not indicate the method of construction. The contractor shall provide all measures necessary to protect life and property during construction.

Abbreviations

&	And
@	At
A.A.	Adhesive Anchor
A.B.	Anchor bolt
ADD'L	Additional
AFF	Above Finished Floor
AL	Aluminum
ALT.	Alternate
ARCH.	Architect
ASTM	American Society for Testing and Materials
BLKG.	Blocking
BM.	Beam
BOTT.	Bottom
BRG.	Bearing
B.S.	Both Sides
BTWN.	Between
CFM	Cubic Feet per Minute
C.J.	Control Joint
C.I.P.	Cast-in-place
C.L., ¯	Center Line
CLG.	Ceiling
CLR.	Clear
COL.	Column
CONC.	Concrete
CONN.	Connection
CONT.	Continuous
CTR.	Center
DBL.	Double
DET.	Detail
DF	Douglas Fir
DIA., ∅	Diameter
DIAG.	Diagonal
DN	Down
DWG(S).	Drawing(s)
(E)	Existing
EA.	Each
E.A.	Each Face
EIFS	Exterior Insulation and Finish System
E.J.	Expansion Joint
ELEV., EL.	Elevation
EMB., EMBED.	Embedment
EQ.	Equal
EQUIP.	Equipment
E.W.	Each Way
EXT.	Exterior
FDN.	Foundation
F.F.	Finish Floor
F.G.	Finish Grade
FHS	Flat Head Screw
FIN.	Finish
F.O.C.	Face of Concrete
F.O.M.	Face of Masonry
F.O.S.	Face of Stud
F.R.S.	Finished Roof Surface
GA.	Gauge
GALV.	Galvanized
G.L.	Grid Line
GSM	Galvanized Sheet Metal
HGR.	Hanger
HORIZ.	Horizontal
HT.	Height
ICBO	International Council of Building Officials
INT.	Interior
INV.	Inverted
JST.	Joist
L.H.	Long Leg Horizontal
L.V.	Long Leg Vertical
LWT	Lightweight
L.V.L.	Laminated Veneer Lumber

MAX.	Maximum
M.B.	Machine Bolt
MECH.	Mechanically
MFR.	Manufacturer
M.I.	Malleable Iron
MIL.	Millimeter
MIN.	Minimum
MISC.	Miscellaneous
(N)	New
N.I.C	Not In Contract
NO., #	Number
N.S.	Near Side
N.T.S.	Not to Scale
NWT	Normalweight
O/	Over
O.C.	On Center
O.D.	Outside Diameter
O.H.	Opposite Hand
OPNG.	Opening
OPP.	Opposite
OSB	Oriented Strand Board
PART.	Partial
PL., ¯	Plate
PLY.	Plywood
RAD.	Radius
R.D.	Roof Drain
REINF.	Reinforcing
REQ.	Required
RF.	Roof
R.O.	Rough Opening
RND.	Round
R.R.	Remove & Replace
S.A.D.	See Architectural Drawings
SAF	Self Adhering
SASM	Flashing Self-adhered Sheet Membrane
SCHED.	Schedule
SHT.	Sheet
SHTG.	Sheathing
SIM.	Similar
SIS	Sound Isolation Sheet
SM	Sheet Metal
S.M.D.	See Mechanical Drawings
S.O.G.	Slab on Grade
S.P.	Southern Pine
S.S.	Stainless Steel
STAGG'D.	Staggered
STD.	Standard
STIFF.	Stiffener
STL.	Steel
STRUCT.	Structural
SYMM., SYM.	Symmetrical
T&B	Top and Bottom
T&G	Tongue & Groove
TEMP.	Temperature
T.O.C.	Top of Concrete
T.O.P.	Top of Plywood
T.O.S.	Top of Steel
T.O.W.	Top of Wall
TS	Tube Steel
TYP.	Typical
U.O.N.	Unless Otherwise Noted
VERT.	Vertical
V.I.F., ±	Verify in Field
W/	With
W.P.	Working Point
W.H.S.	Welded Headed Stud
WRB	Weather-Resistive Barrier
W.T.S.	Welded Threaded Stud
W.W.F.	Welded Wire Fabric

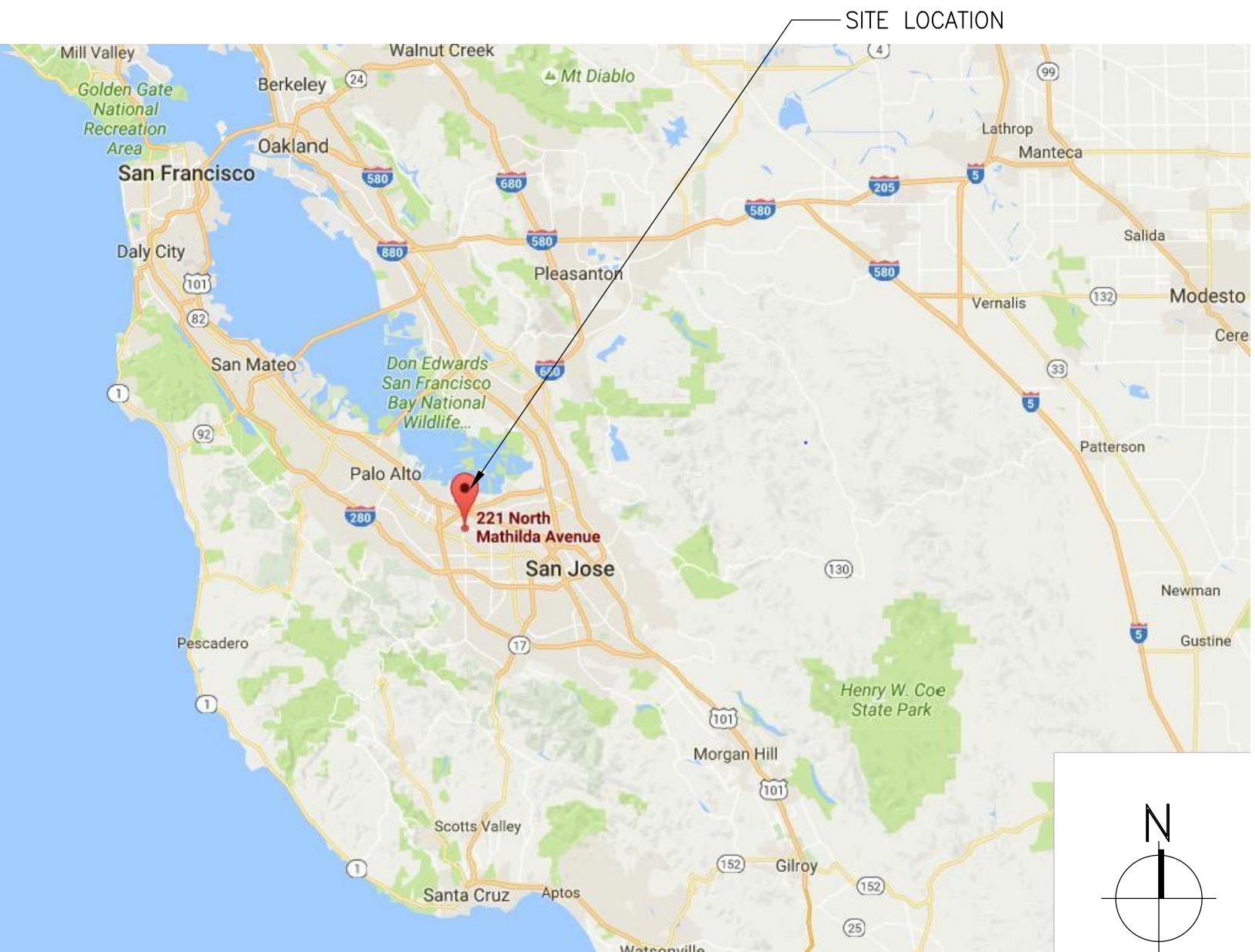
Symbols

	REVISION
	TYPICAL GRIDLINE
	BUILDING SECTION OR ELEVATION
	WORK POINT, DATUM OR CONTROL POINT, FIN. FLR. ELEVATION, S.A.D.
	DETAIL REFERENCE
	PROJECT NORTH

Drawing Index

A001	TITLE SHEET
A201	FIRST FLOOR PLAN
A202	ROOF PLAN
A301	EAST ELEVATION
A302	SOUTH ELEVATION
A303	WEST ELEVATION
A304	NORTH ELEVATION
A305	BUILDING SECTION TRANSVERSE DETAILS
A400	
S201	FOUNDATION PLAN
S202	FIRST FLOOR FRAMING PLAN
S203	ROOF FRAMING PLAN

Vicinity Map



Location Plan



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TITLE SHEET

Drawing Title

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Drawing No.

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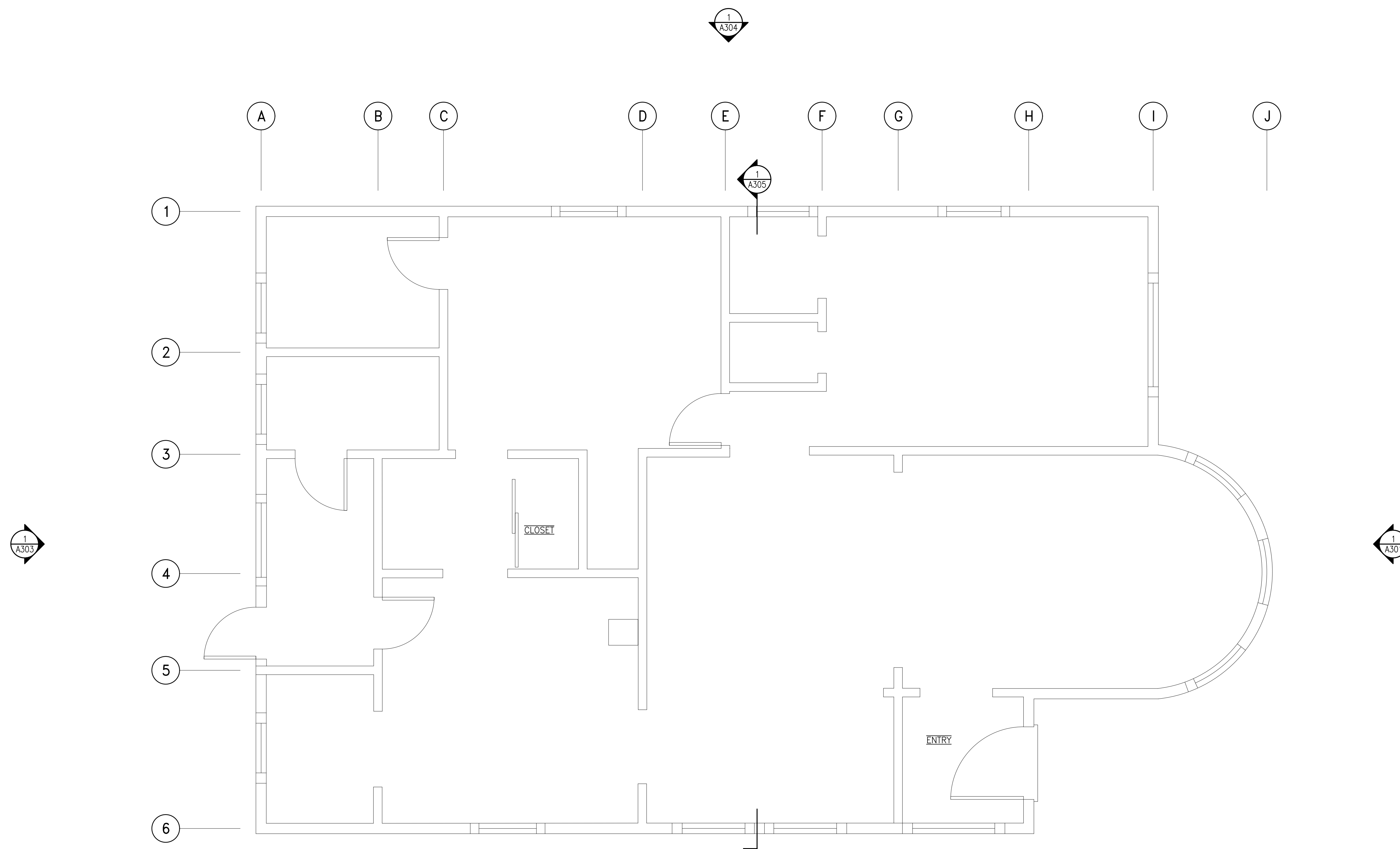
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FIRST FLOOR PLAN

Drawing Title

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Drawing No.	

A201

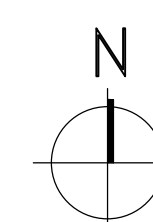


ST_A201

1

FIRST FLOOR PLAN

APPROX. SCALE: 3/8"=1'-0". V.I.F.



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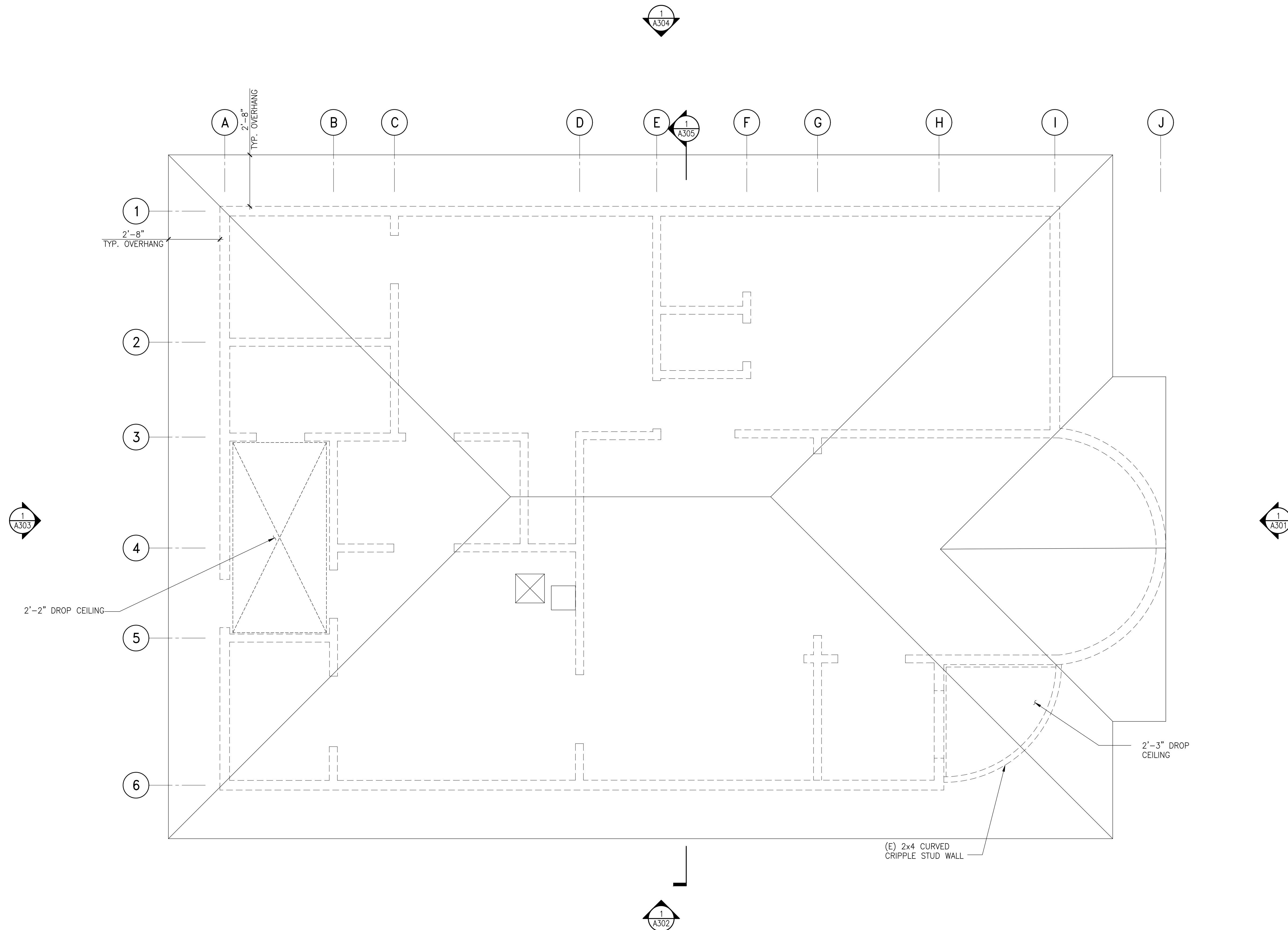
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Project

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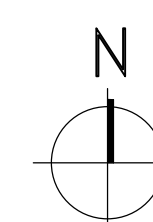
A202



HST_A202

1 ROOF PLAN

APPROX. SCALE: 3/8"=1'-0", V.I.F.





1 EAST ELEVATION

SCALE: 1/2"=1'-0"

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EAST ELEVATION

Drawing Title

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A301

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SOUTH ELEVATION

Drawing Title

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Drawing No.

A302



REF_A302

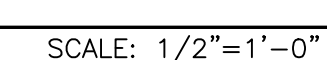
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SOUTH ELEVATION

SCALE: 1/2"=1'-0"

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San Francisco
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A303



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San Francisco
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221 NORTH MATHILDA PRELIMINARY BUILDING ASSESSMENT

Project

Drawing Title

	Drawing No.	
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A304



SCALE: 1/2"=1'-0"

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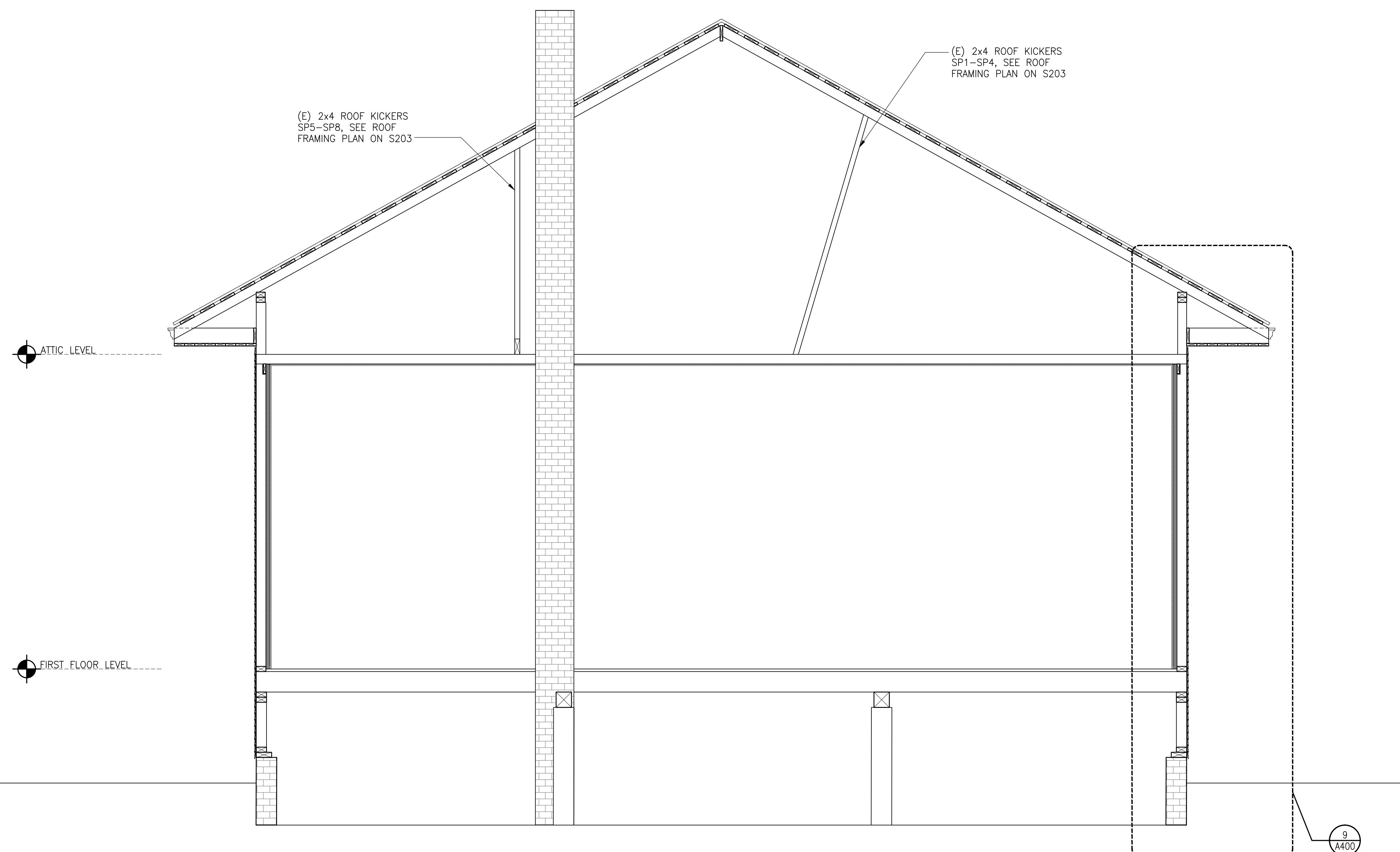
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Project

Drawing Title

	Drawing No.	
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A305



IST_A301-304

1 BUILDING SECTION - TRANSVERSE

SCALE: 1/2"=1'-0"



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Project

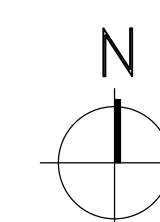
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Drawing Title

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	AS
Drawing No.	

A400



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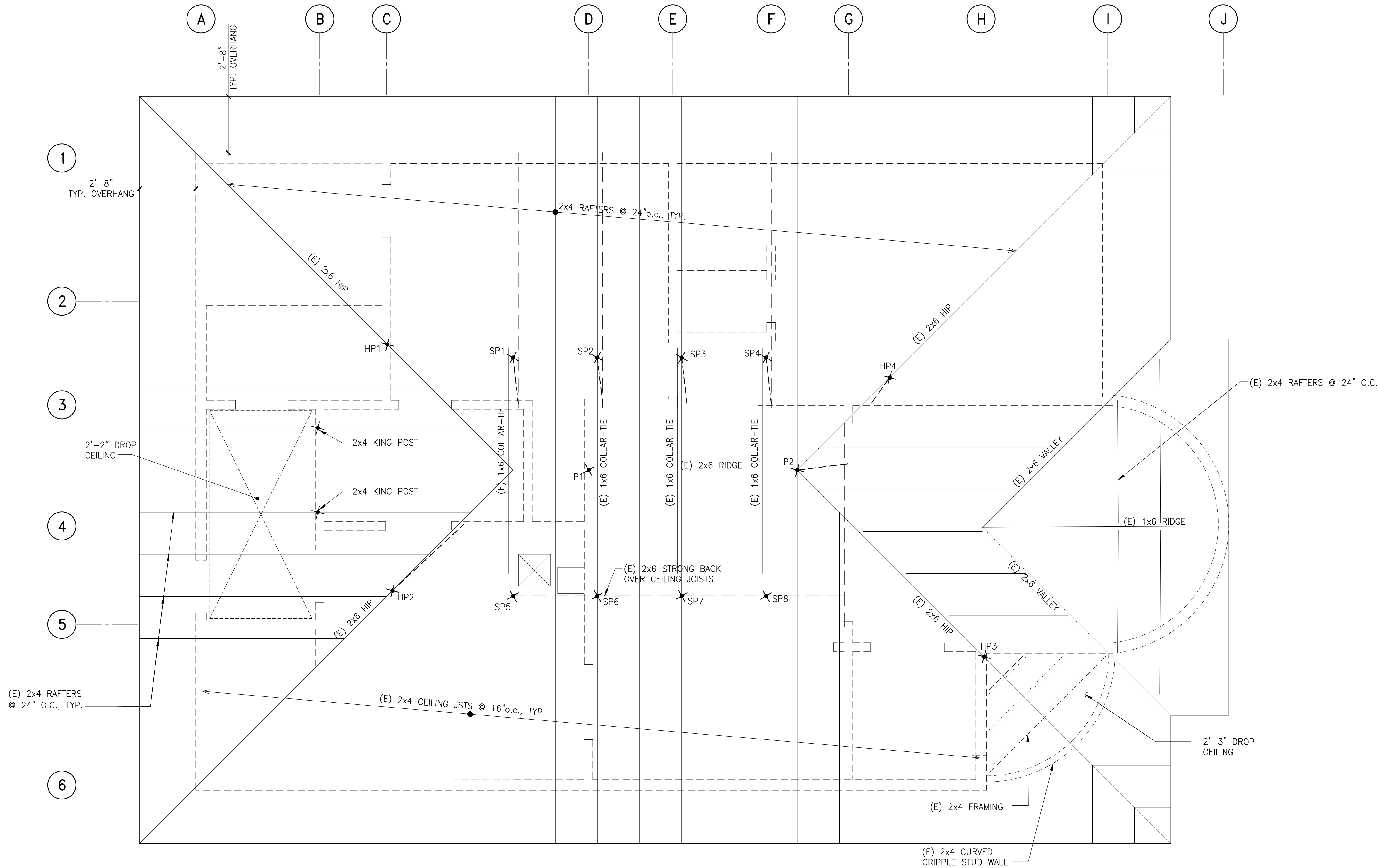
**ROOF FRAMING
PLAN**

Drawing Title

Commission 167047.00	Checked LJD/JEM	Date 09/12/16
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Drawing No.

S203



NOTE:
ALL POSTS, P, HP,
SP SHOWN 2"x4"

HST_3304

1

ROOF FRAMING PLAN

SCALE: 3/8"=1'-0"

