SEISMIC RISK ASSESSMENT FOR DUE DILIGENCE

2030 Harrison Street
San Francisco, California
1 May 2026

SGH Project 268064

PREPARED FOR
Ryan Miller Architects
345 2nd Street East
Sonoma, CA 95476

PREPARED BY
Simpson Gumpertz & Heger Inc.
4695 MacArthur Court, Suite 500
Newport Beach, CA 92660
O: 949.930.2500

1 May 2026

Mr. Ryan Miller
President
Ryan Miller Architects
345 2nd Street East
Sonoma, CA 95476

Project 268065 – Seismic Risk Assessment, 2030 Harrison Street, San Francisco, CA

Dear Mr. Miller:

Attached please find our seismic risk assessment report for the above-named asset (the Subject Property). During the property survey and research, our property surveyor met with agents representing the Subject Property, or agents of the owner, and reviewed the property and its history. The report was completed in general conformance with ASTM Guide E2026-24 and ASTM Guide E2557-24, and according to the terms and conditions authorized by you.

We prepared the report for Ryan Miller Architects. Its employees, agents, successors and assigns, direct client, and/or the lenders, may rely upon this seismic report in evaluating a request for a mortgage financing (the "Mortgage Loan") to be secured by the property. This information may also be relied upon by an actual or prospective purchaser, transferee, assignee, or servicer of the Mortgage Loan or a portion thereof, any actual or prospective investor (including agent or advisor) in any securities evidencing a beneficial interest in or backed by the Mortgage Loan, any rating agency actually or prospectively rating any such securities, any indenture, trustee, and any institutional provider(s) from time to time of any liquidity facility or credit support for such financing. In addition, this report or a reference to this report may be included or quoted in any offering circular, private placement memorandum, registration statement or prospectus, and Simpson Gumpertz & Heger Inc. (SGH) agrees to cooperate in answering questions by any of the above parties in connection with a securitization or transaction involving the Mortgage Loan and/or such securities. This seismic report has no other purpose and should not be relied upon by any other person or entity.

SGH is an independent contractor, not an employee of either the issuer or the borrower, and its compensation was not based on the findings or recommendations made in the report or on the closing of any business transaction.

Thank you for the opportunity to be of service. Should you have questions or require additional information, please contact the undersigned.

Sincerely yours,

James A. McDonald, S.E. (CA)
Principal
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Encl.

EXECUTIVE SUMMARY

We summarize our seismic risk assessment of Redstone Building, located at 2030 Harrison Street in San Francisco, California, in this report. We performed our assessment at the request of Mr. Ryan Miller, President of Ryan Miller Architects.

Simpson Gumpertz & Heger Inc. performed a Level 1 Seismic Risk Assessment as defined by ASTM E 2026-24, *Standard Guide for Seismic Risk Assessment of Buildings,* and ASTM E 2557-24, *Standard of Practice for Probable Maximum Loss (PML) Evaluations for Earthquake Due-Diligence Assessments*. In accordance with these standards, Level 1 assessments are intended for evaluation and classification of the financial risks from earthquake damage to real estate improvements for use in financial transactions.

The property consists of a three-story and four-story building. The three-story Original Building was reportedly built in 1907 and the Addition Building was built after 1907 and before 1950. Other than this addition, no additions to the buildings were observed or reported, but we observed evidence of a limited seismic retrofit of both buildings.

James McDonald, S.E. performed the site visit and prepared this report. No construction drawings were available for our review, but floor plans for the buildings' current configuration were provided for our review. No geotechnical report was available for our review.

We expect the site to remain stable but the site has a potential stability issue. Based on publicly available information, the site is potentially subject to liquefaction. The site is not traversed by known faults and is not mapped in an Alquist-Priolo Fault Zone. The risk for fault rupture is low. The site is relatively flat and is not mapped in a geologic hazard zone for landslides. We judge that the risk for landslides is low. Site seismicity is high.

The buildings have slightly redundant and continuous lateral systems. The aspect ratio of the Original Building is high potentially creating high diaphragm stresses. The Original Building is crawl space construction.

In the event of strong shaking, e.g., 10% in 50 years (475-year earthquake), moderate repairable earthquake damage may occur, but we expect the buildings to remain stable. **Thus, we do not expect global or local stability issues in a major earthquake.**

We computed the loss values using the Thiel-Zutty method. Our analyses included the specific building characteristics identified during our assessment. **Building damageability is summarized as follows**:

Summary of PML Values

Structure	Ground Motion[1]	SEL %	SUL %
Original Building	10% in 50 years (475-year)	15	27
Addition Building	10% in 50 years (475-year)	10	17
Site Aggregate	10% in 50 years (475-year)	**14**	**23**

SEL is scenario expected loss. SUL is the scenario upper loss. See Section 8 for definitions.

In determining these, we assumed that the site would remain stable for the considered earthquake.

Table of Contents

Executive Summary

CONTENTS **Page**

APPENDICES

1. INTRODUCTION

Client: Ryan Miller Architects

Project Address: 2030 Harrison Street, San Francisco, CA 94103

Project Lat/Long: Lat: 37.76437 / Long: -122.41327

Building Description

The property is located on a triangular-shaped site on the northwest corner of Harrison Street and 17th Street in San Francisco, California. It includes a three-story and four-story building with a sole tenant. Figure 1 depicts the site plan.

The three-story triangular shaped Original Building, built in 1907, measures 63 ft in the east-west direction and 157 ft in the north-south direction. The four-story trapezoidal shaped Addition Building, built before 1950, measures 71 ft in the east-west direction and 29 ft in the north-south direction. The addition mimics the story heights and exterior wall appearance.

The Original Building is a heavy timber wood framed structure with a crawl space. The foundation consists of concrete stem walls with strip footings and concrete pedestal footings.

The Addition Building is a cast-in-place concrete building with concrete slabs, beams, columns and walls. The ground floor of the Addition Building is a slab on grade. The foundations are concealed but assumed to consist of strip footings at the walls and spread footings at the concrete columns.

For a more comprehensive description of the buildings, see Section 4. For photographs, see Photos 1 to 40 in Appendix A.

Purpose of Assessment

The purpose of the seismic risk assessment is to provide information for making financial decisions related to the buildings.

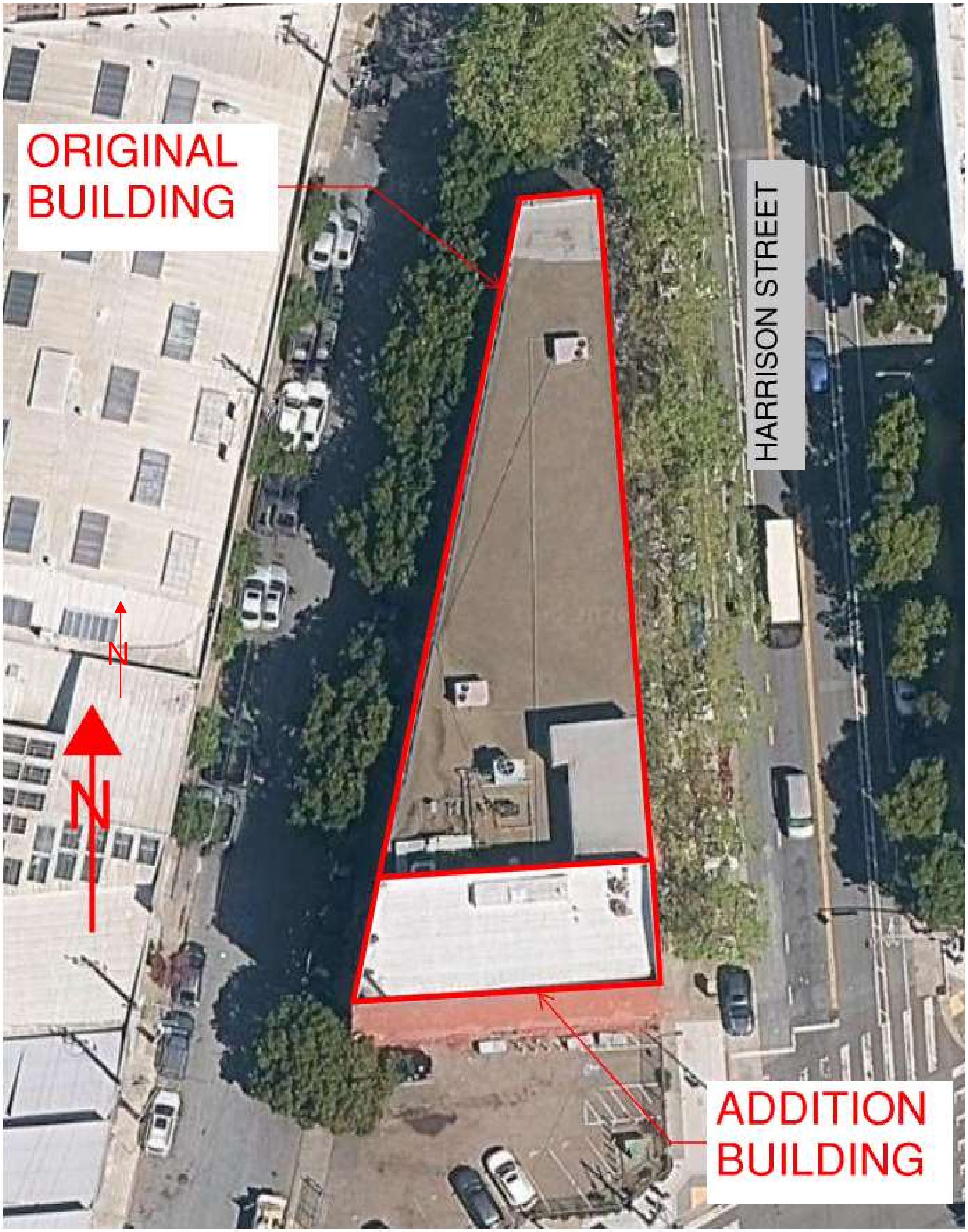

Figure 1 – Site Plan

2. OBJECTIVE

The objective of our assessment is to provide our opinion concerning the probable performance of the structure in future earthquakes based on a limited scope of work.

3. SCOPE OF WORK

We performed a Level 1 Seismic Risk Assessment as defined by the ASTM E 2026-24 *Standard Guide for Seismic Risk Assessment of Buildings* and ASTM E 2557-24 *Standard of Practice for Probable Maximum Loss (PML) Evaluations for Earthquake Due-Diligence Assessments*. A Level 1 assessment in accordance with these standards is intended for evaluation and classification of the financial risks from earthquake damage to real estate improvements for use in financial transactions.

We performed the following scope of work:

- Performed a walkthrough to observe the condition and general configuration of the buildings.
- Reviewed available structural drawings, geotechnical reports, test reports, seismic evaluations, and condition assessments.
- Performed seismic loss estimates for the building in accordance with requirements for a Level 1 Seismic Risk Assessment per ASTM Standards E 2026-24 and ASTM E2557-24.
- Prepared this written report of our findings.

The scope did not include review of every component and detail but rather focused on those elements judged by our professional experiences to be most important, most frequently overlooked, and most representative of the general quality. Actual building gravity and seismic resistance characteristics are not assessed fully since detailed inspection and in-depth analysis were not part of the scope. Information not available and hidden construction quality conditions could alter the expected seismic vulnerability of the building from that assumed in the report. Users of this report must accept that defects may exist that we did not observe and are not included in our assessment. The loss estimation process reflects uncertainty in both the seismic environment and the building's performance. There is no assurance that damage observed to the building in a future earthquake will be more or less than the estimated loss values given.

3.1 Documents Available for Our Review

- Drawings
  - Building Floor Plans, 2030 Harrison Street, San Francisco, CA, 94103, dated 27 October 2025 by A&A Graphic Services, Inc.
- Previous Seismic Reports and Condition Assessments
  - None

3.2 Site Visit

James McDonald, S.E. of Simpson Gumpertz & Heger Inc. (SGH) performed a site visit on 17 April 2026. Mr. McDonald observed the exteriors, representative unoccupied and occupied interior areas, mechanical and electrical rooms, and roofs. SGH was accompanied by and interviewed Sara Silver, President Executive Assistant with University Games. Much of the structural framing is concealed by architectural finishes limiting observations.

Ms. Silver reported minor building condition issues and the concrete spalls exposing corroded reinforcing steel on the south wall of the Addition Building. She also indicated the surrounding sidewalks have reverse slopes that drain runoff water toward the building.

We observed many Original Building heavy timber beams and columns with large checking cracks. We judge these cracks to not be seismically significant but some of the cracks may merit repair or member strengthening for serviceability and gravity loads.

4. BUILDING DESCRIPTIONS

4.1 General

While the Original Building and the Addition Building floor heights match, we did not observe a seismic gap between the buildings. We could not observe the potential structural (seismic) connection between the buildings, but engineering practice at the time would not have typically designed a strong connection between the buildings. Hence, we presume if the structures have any seismic connection, it is not sufficiently effective to significantly alter the seismic response of either structure. Therefore, we evaluated the Original Building and Addition Building as separate structures.

Table 1 – Building Description

Structure	Building Footprint Shape	Approx. Plan Dim. (ft)	Stories	Total Floor Area (sq ft)
Original	Triangular	63 x 157	3	18,660
Addition	Trapezoidal	29 x 71	4	7,660
Total				**26,320**

4.2 Date Retrofitted/Modified

We observed retrofit steel braced frames on all floors on the east and west sides in the Addition Building and a retrofit first story steel moment frame on the north side in the Original Building. While our permit search did not reveal the date of construction, we presume the retrofit was completed in the early 1990s.

4.3 Building Exterior

Both structures have similar, matching, exteriors: stucco covered walls with punched windows.

4.4 Construction

The Original Building is a heavy timber wood framed structure. The roof and floors consist of plank sheathing over roof and floor joists supported by heavy timber beams. The beams are supported by wood columns. The exterior walls and interior partitions are wood framed walls with plaster and stucco.

The Addition Building is a cast-in-place reinforced concrete bearing wall building with concrete beam and slab roof and floors. The roof and floors are supported by concrete walls and concrete columns.

There is no perceptible seismic gap between the Original and Addition Buildings but there are no other adjacent buildings.

4.5 Foundations

No information was available from the original construction drawings regarding the building foundations. We had limited observation and based on the construction type and date of construction presume the following. For the Original Building, the foundation consists of concrete stem walls with strip footings and concrete pedestal footings. For the Addition Building, the foundations are concealed but assumed to consist of strip footings at the walls and spread footings at the concrete columns.

5. GEOTECHNICAL

5.1 Reports Reviewed

No geotechnical reports were available for review. Our geotechnical information is based on our knowledge and information available on public websites.

5.2 Soil Profile

We assumed the site classification to be S_D.

5.3 Groundwater

The ground water level, based on nearby reported water levels, is estimated to be less than 10 feet below ground surface.

5.4 Liquefaction Susceptibility

The site is in a zone mapped as having potential for liquefaction due to strong ground shaking per the Earthquake Zones of Required Investigation Map published by the California Geological Survey (CGS).

We assume the potential for surface manifestation from liquefaction within the existing building footprint to be moderate and not a substantial stability hazard.

5.5 Landslide Susceptibility

The site is relatively flat. The site is not located within a California Seismic Hazard Zone for landslides. Landslide susceptibility is low.

5.6 Proximity to Faults

The building is not located within an Alquist-Priolo Special Study Zone. We consider the probability of fault rupture to be very low.

5.7 Seismicity

Faults affecting the site are summarized in Table 2. The expected seismicity at the site can be obtained from online applications by inputting the coordinates and soil profile for the site. For a site with a known S_D profile, the short-period spectral acceleration for two-thirds of the maximum considered earthquake is 1.21g, while the 1 sec-period spectral acceleration is 1.18g using ground motions for ASCE 7-22, *Minimum Design Loads for Buildings and Other Structures*, referenced in 2022 California Building Code (CBC). The short-period spectral acceleration corresponds to a peak ground acceleration (PGA) of approximately 0.64g for the current code-specified design level earthquake. The PGA for an earthquake with a 475-year return period is 0.48g according to data available on the USGS website. The short-period spectral acceleration is applicable to these buildings: three-story buildings with concrete and masonry shear walls. The reported loss values are associated with a 475-year return period earthquake.

Table 2 – Major Faults Affecting Site

Fault	Maximum Magnitude	Closest Distance (km)	Maximum MMI[1]
N. San Andreas	8	11	IX-X
San Gregorio	7.5	17	IX-X
Hayward-Rodgers Creek	7.3	18	IX

[1] MMI is the Modified Mercalli Intensity – a measure of ground motion intensity based on human perception of motion and observed damage. See the MMI Scale in Appendix E.

6. CODES/JURISDICTION

6.1 Original Design Code

Based on the dates of construction, we judge the following design codes for the structures:

- Original Building: 1906 Building Law of the City and County of San Francisco
- Addition Building: Unknown based on unknown date of construction
- Seismic retrofits: Unknown based on unknown dates of construction

6.2 Jurisdiction

- San Francisco, California

6.3 Current Applicable Building Code

- 2025 CBC and 2024 International Building Code with local amendments

6.4 Mandatory Upgrades

The City of San Francisco has no ordinances for mandatory seismic upgrade of these buildings.

7. SEISMIC ASSESSMENT OF STRUCTURAL SYSTEMS

We performed a structural assessment of the primary systems essential to provide seismic-force resistance for the buildings and those systems susceptible to earthquake-induced damage based on information obtained from the site walkthrough, limited spot-check calculations where we deemed appropriate, and a review of the available drawings.

We summarize our findings and conclusions for each element of the seismic-resisting system and systems susceptible to earthquake-induced damage, if any, below.

7.1 Basis of Design

Based on the dates of construction, we judge the following basis of design.

7.2 Horizontal Resisting Elements

For the Original Building, the wood-sheathed roof and floors act as horizontal diaphragms to transfer lateral loads to the shear walls. The roof and floors have wood sheathing, presumably wood planks. The shear wall sheathing is concealed by architectural finishes. but we presume limited number of solid piers have diagonal wood sheathing. The building is long and narrow and relies on interior transverse partition walls to brace the roof and floor diaphragms.

For the Addition Building, the reinforced concrete roof and floor slabs act as horizontal diaphragms to transfer lateral loads to the concrete shear walls and the steel braced frames. The diaphragm has slightly less than a 2.5 to 1 aspect ratio which is satisfactory for a concrete diaphragm.

The diaphragms of the two buildings align and because the Addition Building is a relatively stiff building, we do not expect significant pounding damage.

7.3 Vertical Resisting Elements

The primary vertical load resisting systems for the Original Building are the exterior shear walls supplemented by interior partition walls and the first story, north wall retrofit steel moment frame. The shear wall sheathing is concealed by architectural finishes, but we presume by the limited number of solid piers that the piers have diagonal wood sheathing. The exterior stucco and interior plaster will also contribute to the shear walls' strength and stiffness. We observed an example of cripple wall bracing in the very limited crawl space access. We could observe very few sill plate conditions at the foundation but presume the sill plates are bolted to the foundation.

The primary vertical load resisting systems for the Addition Building are the north and south exterior reinforced concrete shear walls and the east and west steel chevron braced frames. The shear walls and braced frames are continuous and full height of the structure. The shear walls and braced frames transfer loads to the foundation.   supplemented by interior partition walls and the first story, north wall retrofit steel moment frame. masonry and reinforced cast-in-place concrete shear walls.

7.4 Foundations

Although the foundations are concealed, based on the framing types and the date of construction, we presume the foundations for interior columns consist of shallow spread footings. The foundations for the exterior walls consist of continuous strip footings. We did not observe significant cracking or signs of settlement around the buildings.

7.5 Summary of Seismic Performance

The buildings' seismic force resisting system appears typical for the vintage of design and construction. The Addition Building's south shear wall has some cracking and spalling but the condition is not likely to play a significant role in the building's seismic response.

The buildings have modestly redundant seismic systems except the second and third stories at the north wall of the Original Building. The lateral systems are full height and continuous. The seismic retrofits significantly improve the buildings' expected performance.

In a moderate earthquake, damage will occur in the form of cracking and minor local spalling of concrete over reinforcing and in the wood framed walls minor cracking. In a major earthquake, cracking of walls would likely be significant to the point of having significantly reduced lateral capacity, and the roof and floor diaphragms may experience moderate damage. We would expect the buildings to maintain sufficient vertical load carrying capacity to remain stable in a code level earthquake.

For economic consequences, refer to the discussion in Section 8, Seismic Loss Estimate.

8. SEISMIC LOSS ESTIMATE

We performed a Level 1 Probable Maximum Loss (PML) evaluation for the Subject Property. The earthquake due diligence assessment is in conformance with the scope and limitations of ASTM E 2026-24, *Standard Guide for Seismic Risk Assessment of Buildings,* and ASTM E 2557-24 *Standard of Practice for Probable Maximum Loss (PML) Evaluations for Earthquake Due-Diligence Assessments.* The determined loss values are presented in Table 3.

Loss values are estimates of damage repair costs resulting from earthquake ground shaking. They are expressed as the ratio of the estimated cost to repair the building divided by the total replacement cost of the building. The ratio is multiplied by 100 to be expressed as a percentage. The loss values do not include the cost of replacing contents, losses due to fire or water, or business interruption losses.

The loss value terminology as defined by ASTM E 2026 is presented below.

- **Probable Loss (PL)**: Earthquake loss to the building systems that has a specified probability of being exceeded in a given time period
- **Scenario Loss (SL)**: Earthquake loss to the building systems associated with specified earthquake events on specific fault(s) affecting the building
- **Scenario Expected Loss (SEL)**: Expected value of scenario loss for the specified ground motion of the earthquake scenario selected
- **Scenario Upper Loss (SUL)**: Scenario loss that has a 10% probability of exceedance due to the specified ground motion of the scenario considered.

Ground shaking intensity is defined as shaking at the site that has specified probability of exceedance during a specified number of years.

We computed the PMLs using the Thiel-Zutty (TZ) method. Our analyses include the effects discussed in Section 7, Seismic Assessment of Structural Systems.

The SEL values for the site are for the 475-year scenario shaking. In determining these we assumed that the buildings are located on a site with a uniform soil profile.

Table 3 – Summary of PML Values

Structure	Ground Motion[1]	SEL %	SUL %
Original Building	10% in 50 years (475-year)	15	27
Addition Building	10% in 50 years (475-year)	10	17
Site Aggregate	10% in 50 years (475-year)	**14**	**23**

9. RECOMMENDATIONS

Voluntary seismic retrofit measures can be implemented to reduce a building's damageability. A partial seismic retrofit to address the open north elevation of the Original Building at the second and third story levels would reduce the building's damageability. We recommend considering the following limited measures to reduce the structure's seismic risk:

- Add narrow shear walls at the north wall at the second and third story at the Original Building.

These recommendations are conceptual and require refinement for planning purposes. Our opinion of the probable construction costs to implement the recommendations is approximately $40,000.

Note that these recommendations are separate and in addition to the condition-related repairs to the Addition Building's south wall, the Original Building's heavy timber framing repairs, and the surrounding grade slope towards the building. These potential repairs are outside the scope of the seismic evaluation.

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Appendix A

Photographs

Photo 1

Addition, right, and Original Building, left, west elevation viewed from south.

Photo 2

West elevation with Original Building to left and Addition Building to right.

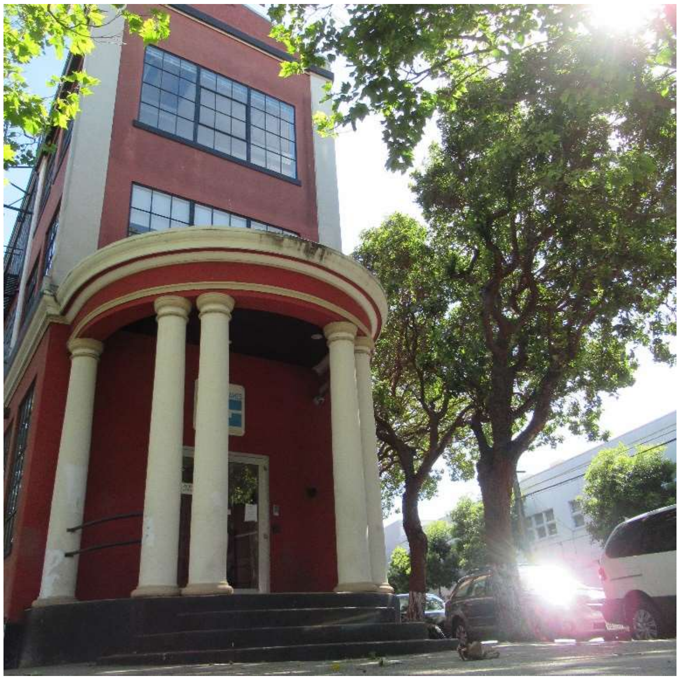


Photo 3

Original Building north elevation that comes to narrow wall.

Photo 4

Original Building, right, and Addition Building, left, east elevation viewed from north.

Photo 5

Addition, left, and Original Building, right, east elevation viewed from south.

Photo 6

Addition Building south and east elevation. Note 3rd floor steel braced frame.

Photo 7

West and south elevation primarily of Addition Building.

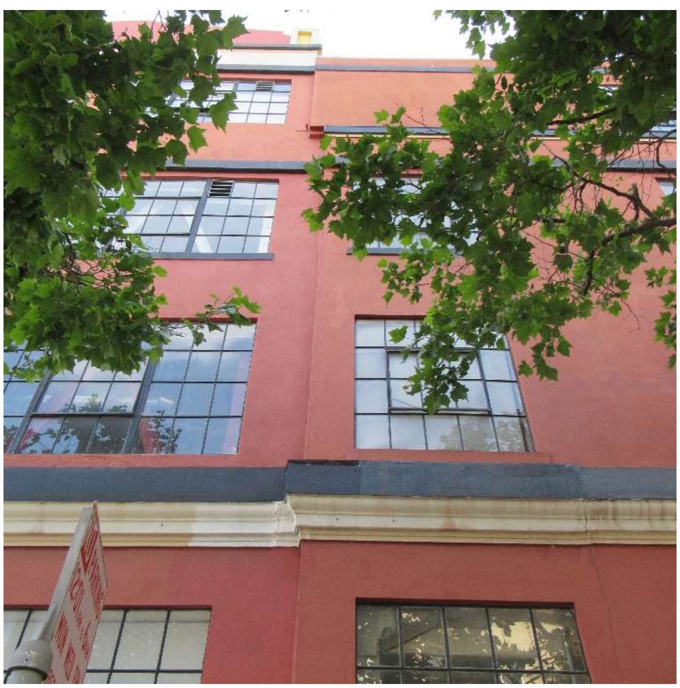


Photo 8

Exterior joint of Addition Building to left and Original Building to right.

Photo 9

Stucco cracking at Original to Addition Building joint due to minor differential movement.

Photo 10

Original Building solid piers, one in foreground and one in background, to provide shear walls.

Photo 11

Original Building west sidewalk that slopes down, negative slope, towards building due to tree root growth.

Photo 12

Overall view of flat roof with Original Building in foreground and Addition Building in background. The Addition Building fourth story visible in background.

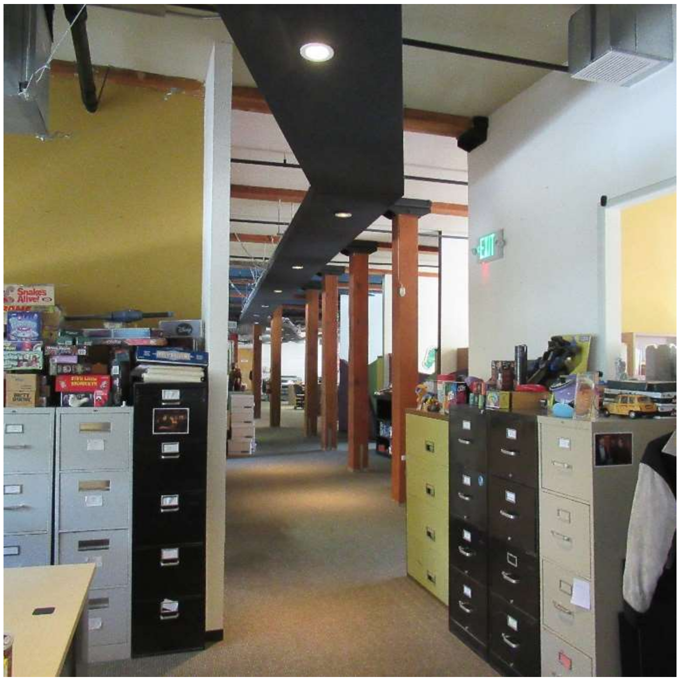


Photo 13

Original Building typical second floor exposed framing of wood columns and beams.

Photo 14

Original Building north wall third story with knee braces to stiffen wall.

Photo 15

Original Building north wall second story with no apparent seismic retrofit.

Photo 16

Original Building first story retrofit steel moment frame building's north end.

Photo 17

Original Building north wall first story welded steel moment frame beam-to-column joint.

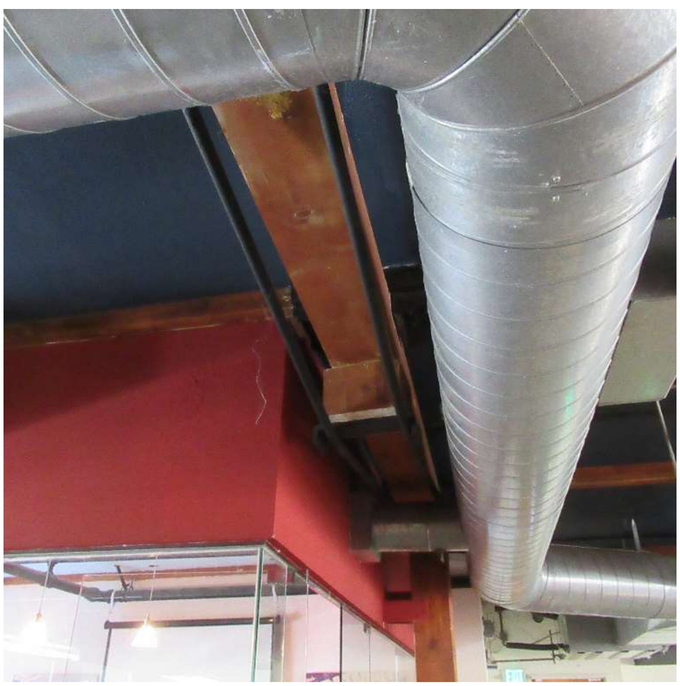


Photo 18

Original Building king post with steel tension rods to support beam at removed column.

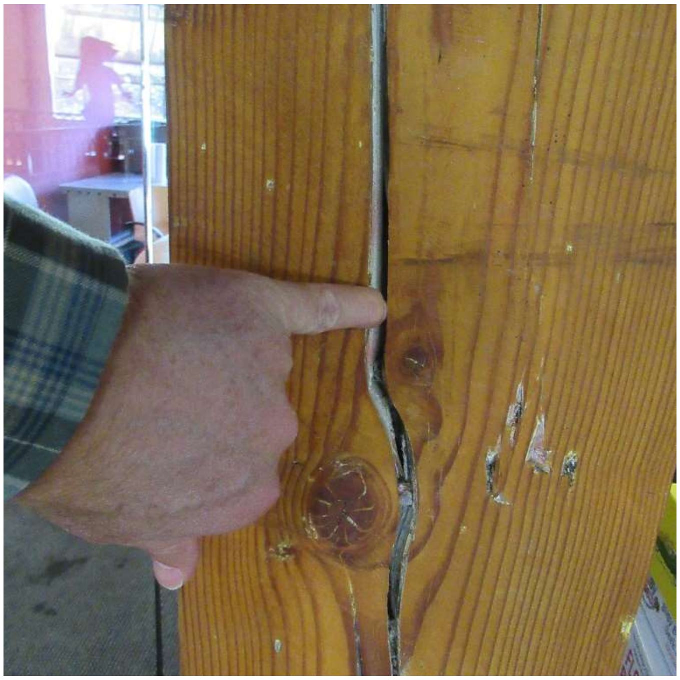


Photo 19

Original Building heavy timber column with large checking crack.

Photo 20

Original Building exposed heavy timber framing at atrium.

Photo 21

Original Building crawl space with partially cut cripple wall sheathing.

Photo 22

Original Building crawl space floor joists and beams supported by concrete pedestal.

Photo 23

Original Building beam-to-column joint with steel bearing plates.

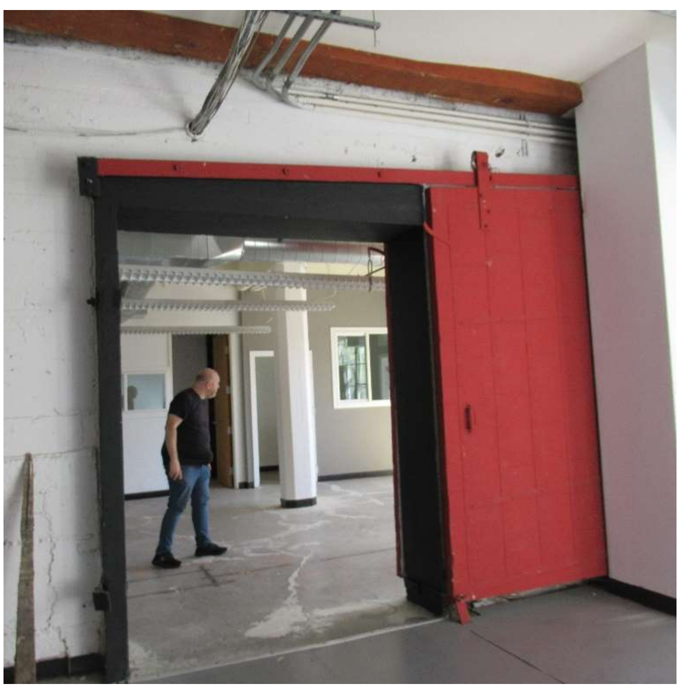


Photo 24

Original Building in foreground with transition to Addition Building in background.

Photo 25

Building joint with heavy timber wood beam of Original Building on left and concrete Addition Building to right.

Photo 26

Addition Building overall view of concrete framing with octagonal column in background.

Photo 27

Addition Building with slab step and east wall retrofit steel braced frame.

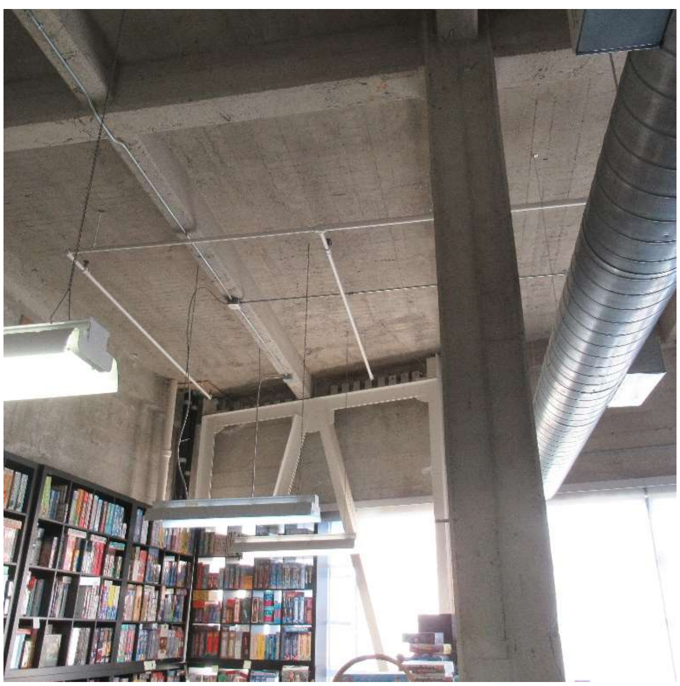


Photo 28

Addition Building exposed concrete framing with retrofit steel braced frame at west wall.

Photo 29

Addition Building damaged concrete beam exposing reinforcing steel.

Photo 30

Addition building first story steel braced frame with concrete slab patches at new columns.

Photo 31

Addition Building slab patch at third floor slab to allow steel braced frame installation.

Photo 32

Addition Building south wall concrete beam with cracking and exposed corroded reinforcing steel.

Photo 33

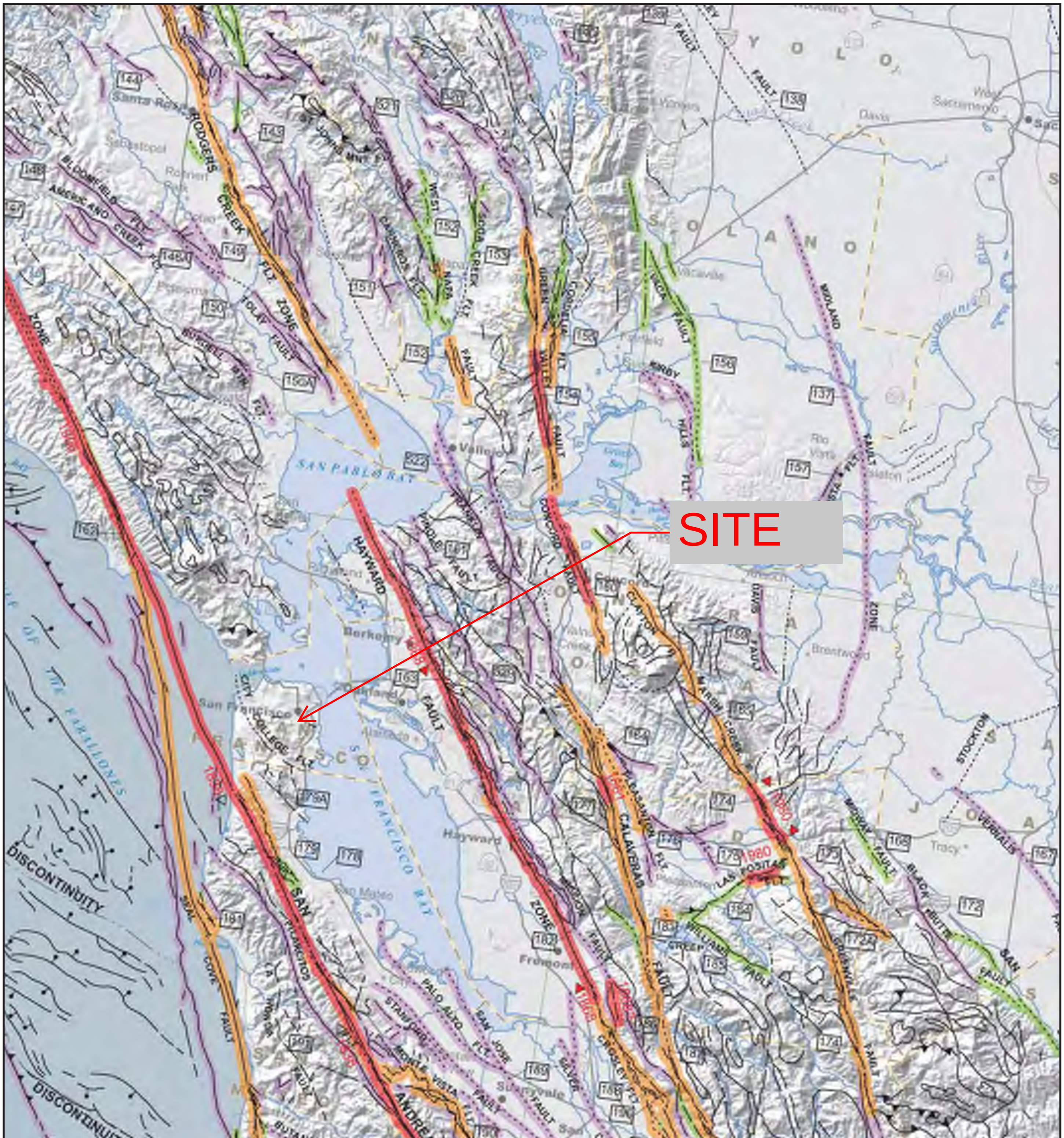
Addition Building steel braced frame connection to perimeter concrete beam.

Photo 34

Original Building with anchored hydraulic elevator equipment.

Appendix B

Maps – Site and Seismic



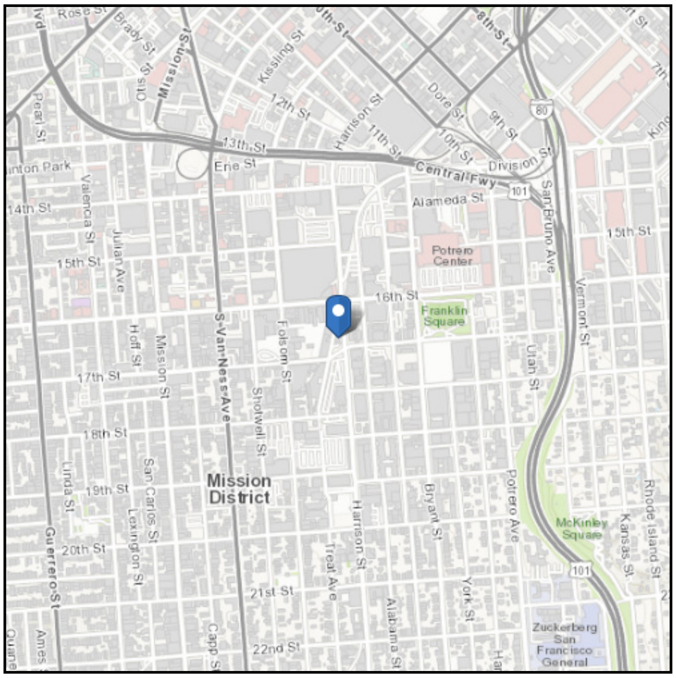
	Fault along which historic (last 200 years) displacement has occurred and is associated with one or more of the following:
	Holocene fault displacement (during past 11,700 years) without historic record.
	Late Quaternary fault displacement (during past 700,000 years).
	Quaternary fault (age undifferentiated).

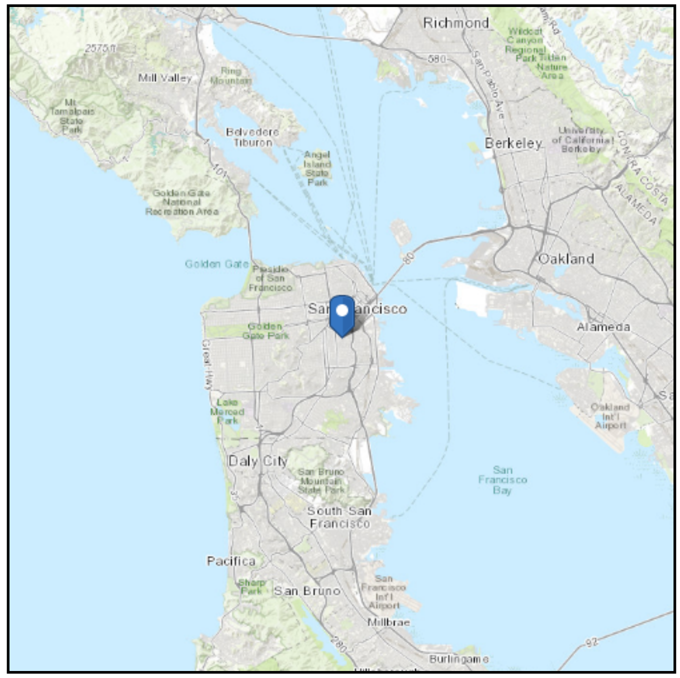
USGS REGIONAL FAULT MAP

ASCE Hazards Report

Address:
2030 Harrison St
San Francisco, California
94110

Standard:	ASCE/SEI 7-22	**Latitude:**	37.764374
Risk Category:	II	**Longitude:**	-122.413265
Soil Class:	Default	**Elevation:**	23.75873131146048 ft (NAVD 88)





Seismic

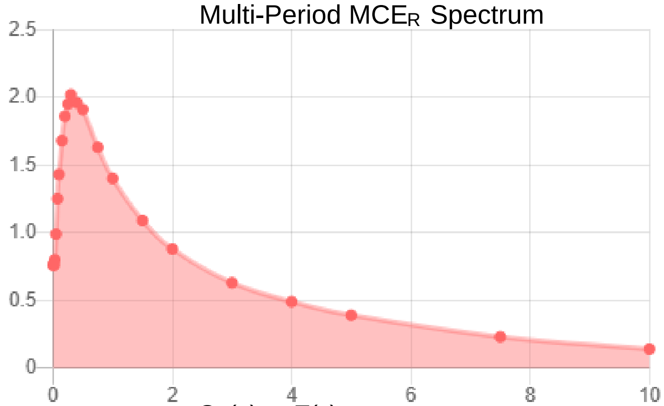
Site Soil Class: Default

Results:

PGA_M :	0.64	T_L :	12
S_{MS} :	1.82	S_S :	1.58
S_{M1} :	1.77	S_1 :	0.6
S_{DS} :	1.21	V_{S30} :	260
S_{D1} :	1.18		

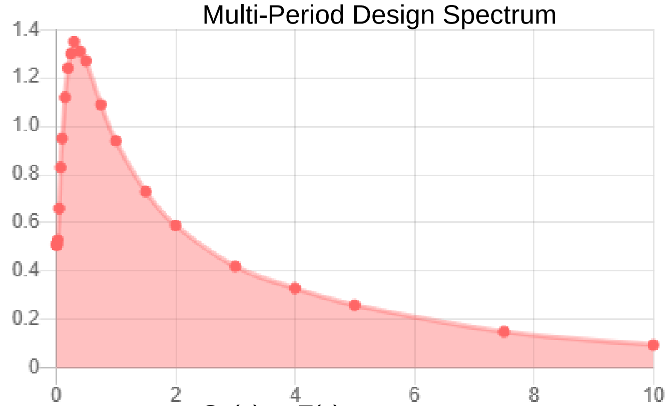
Seismic Design Category: D

Multi-Period MCE_R Spectrum



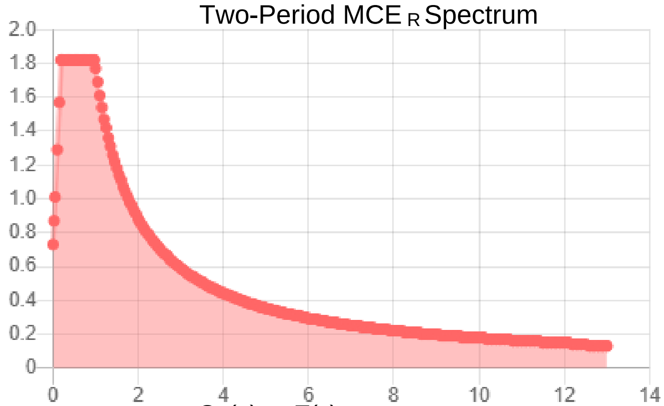
S_a(g) vs T(s)

Multi-Period Design Spectrum



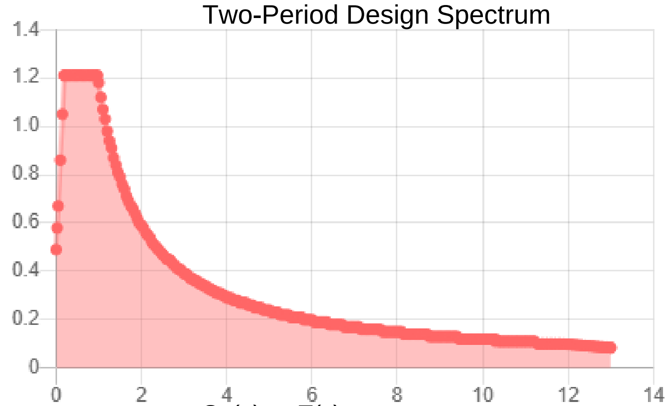
S_a(g) vs T(s)

Two-Period MCE_R Spectrum



S_a(g) vs T(s)

Two-Period Design Spectrum



S_a(g) vs T(s)

MCE_R Vertical Response Spectrum

Vertical ground motion data has not yet been made available by USGS.

Design Vertical Response Spectrum

Vertical ground motion data has not yet been made available by USGS.

Data Accessed: **Fri May 01 2026**

Date Source:

USGS Seismic Design Maps based on ASCE/SEI 7-22 and ASCE/SEI 7-22 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-22 Ch. 21 are available from USGS.

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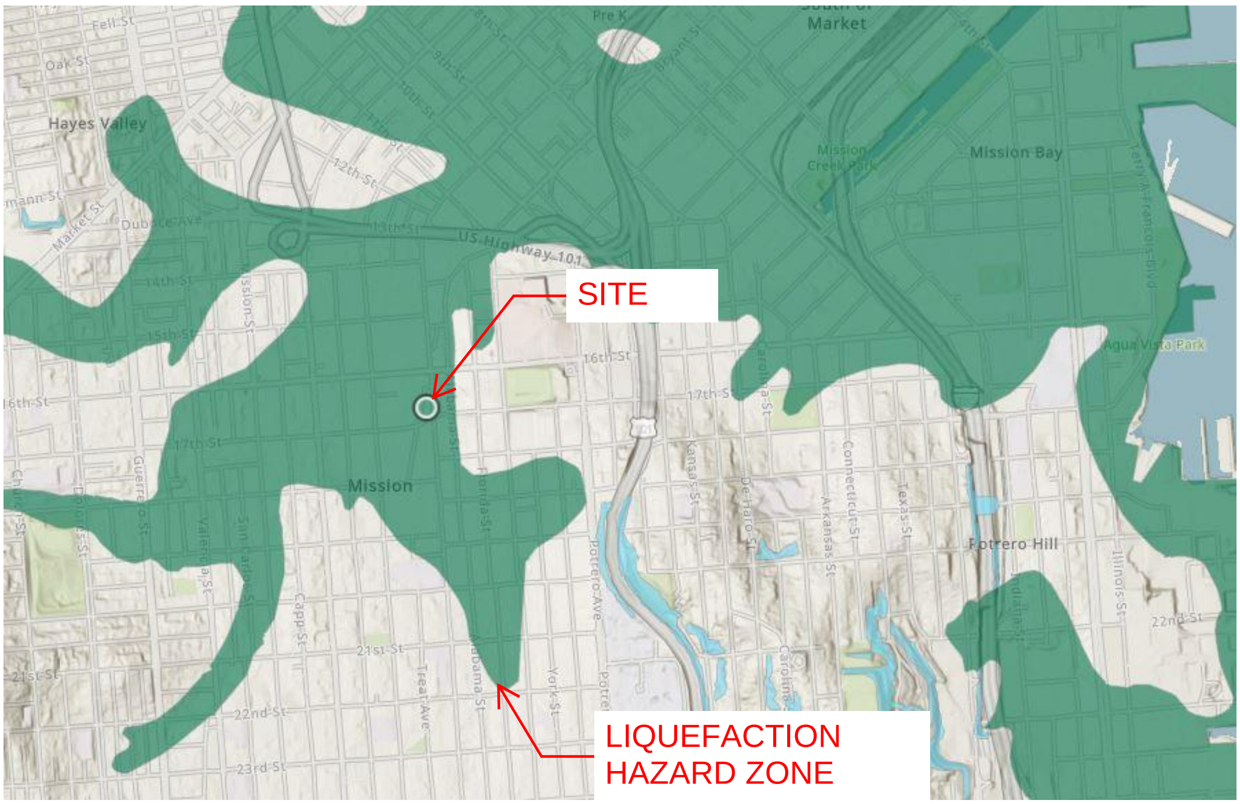
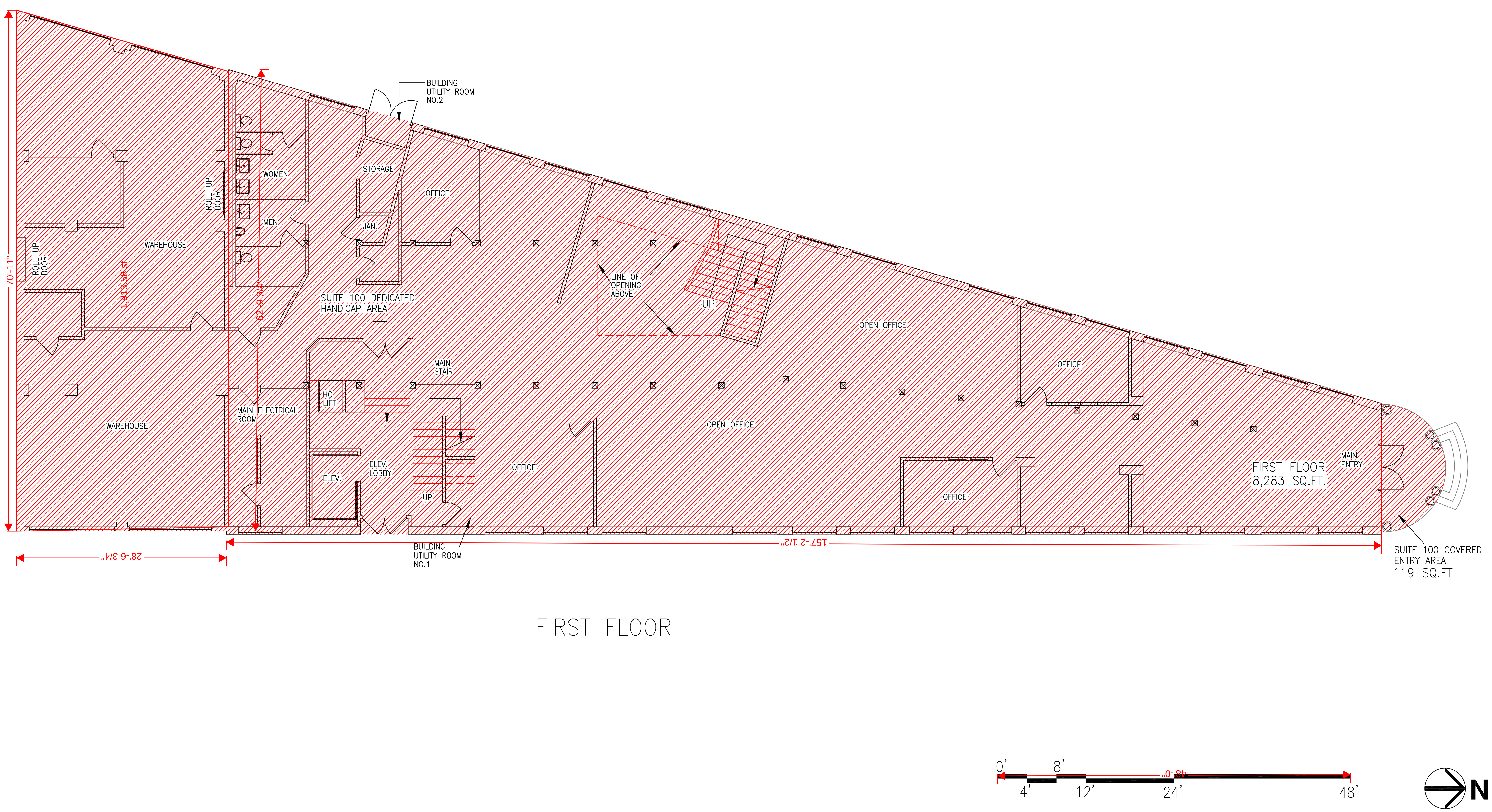


Earthquake Zones of Required Investigation
per California Geological Survey

Appendix C
Building Drawings



SINGLE OCCUPANT BUILDING DATA

FIRST FLOOR	8,402 SQ.FT.
SECOND FLOOR	7,932 SQ.FT.
THIRD FLOOR	8,283 SQ.FT.
FOURTH FLOOR	3,231 SQ.FT.
TOTAL	27,848 SQ.FT.

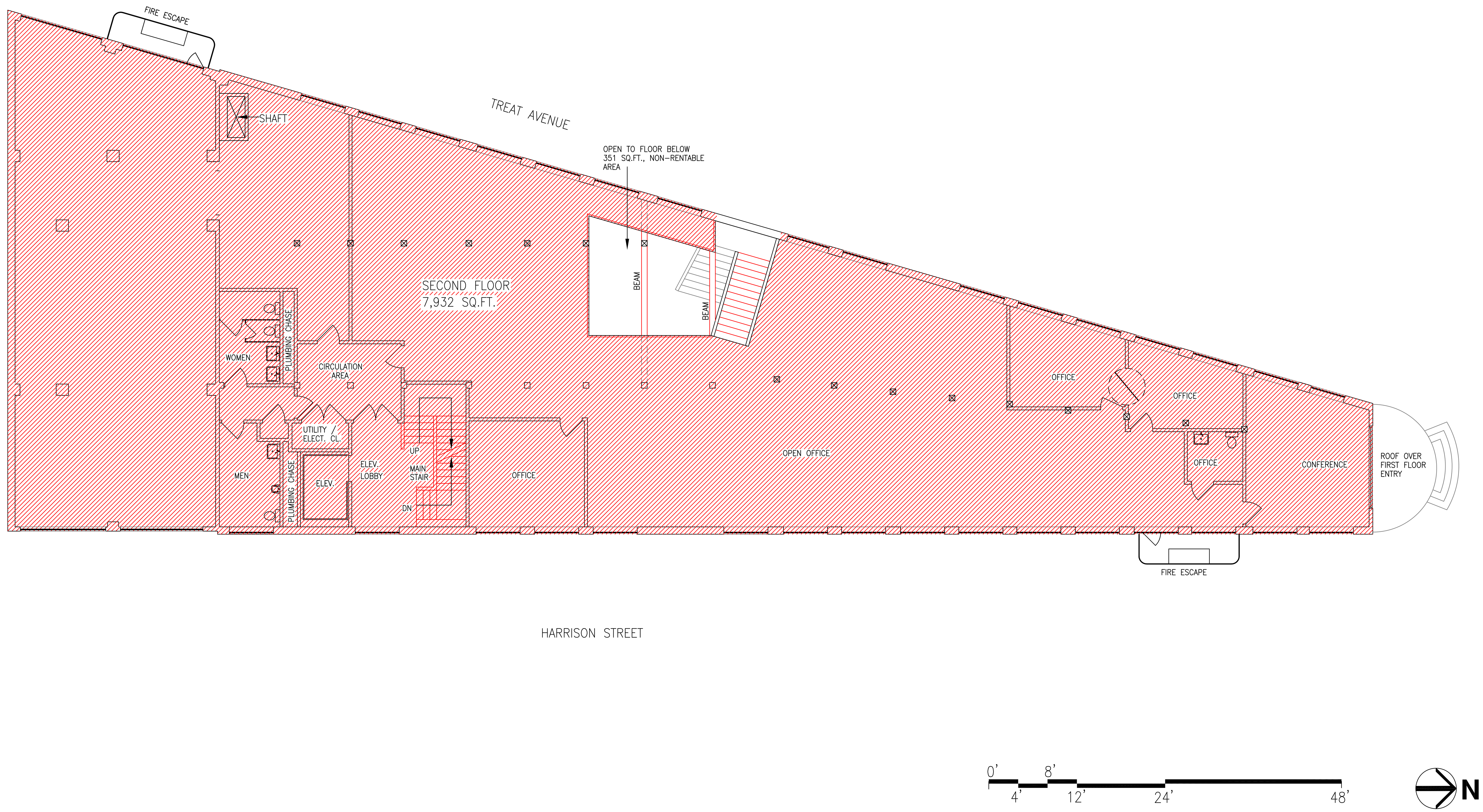
BOMA METHOD

BOMA 2024 FOR OFFICE BUILDINGS:
(ANSI/BOMA Z65.1–2024)

2030 HARRISON STREET, SAN FRANCISCO, CA
FIRST FLOOR PLAN - SINGLE OCCUPANT BUILDING

OCTOBER 27, 2025

A&A Graphic Services, inc.
2426 Homestead Circle
Richmond, CA 94806
Ph: 510-507-4729
E-mail: aa.graphicservices@yahoo.com



SINGLE OCCUPANT BUILDING DATA

FIRST FLOOR	8,402 SQ.FT.
SECOND FLOOR	7,932 SQ.FT.
THIRD FLOOR	8,283 SQ.FT.
FOURTH FLOOR	3,231 SQ.FT.
FOURTH FLOOR	27,848 SQ.FT.

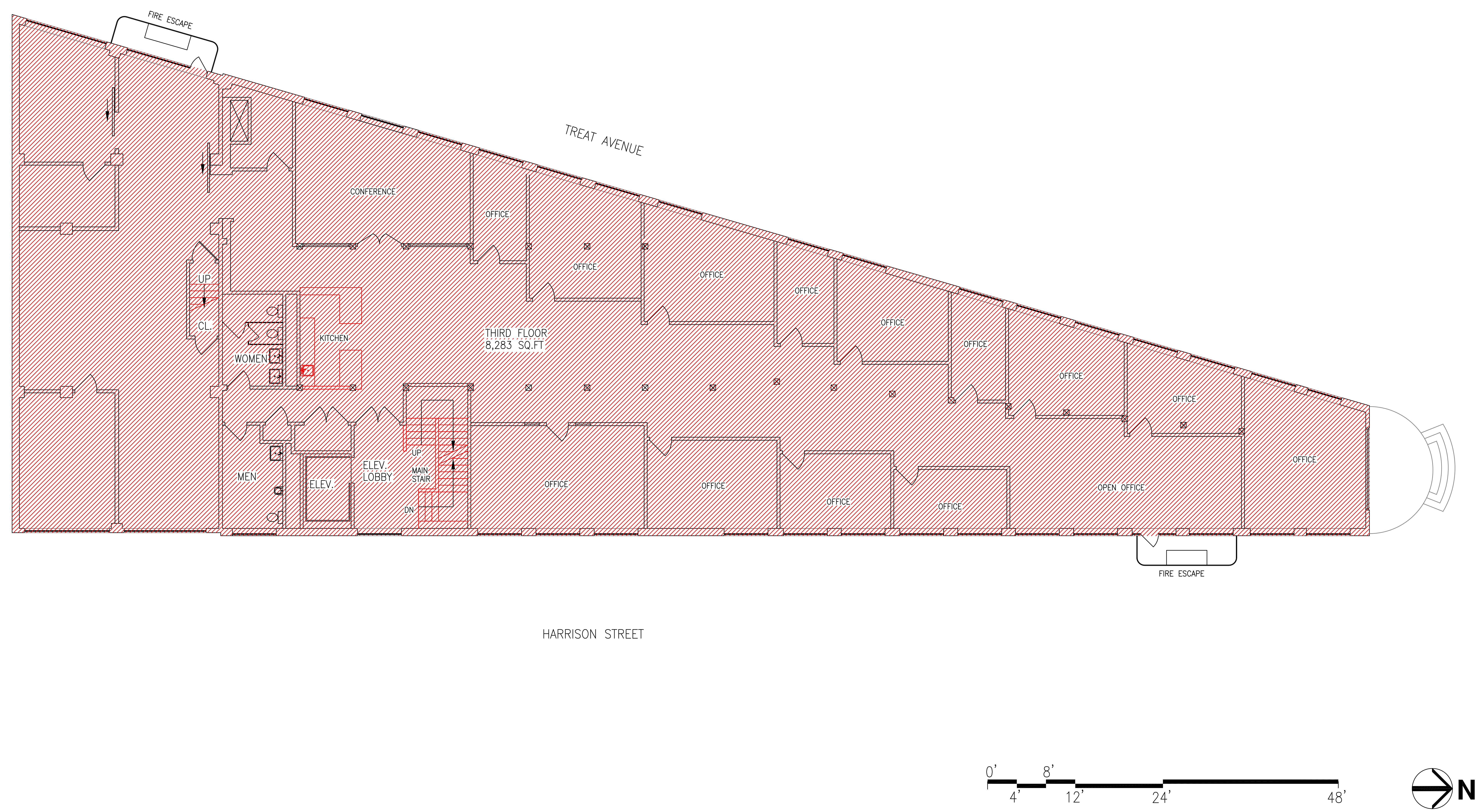
BOMA METHOD

BOMA 2024 FOR OFFICE BUILDINGS:
(ANSI/BOMA Z65.1–2024)

2030 HARRISON STREET, SAN FRANCISCO, CA

SECOND FLOOR PLAN - SINGLE OCCUPANT BUILDING

A&A Graphic Services, inc.
2426 Homestead Circle
Richmond, CA 94806
Ph: 510-507-4729
E-mail: aa.graphicservices@yahoo.com



SINGLE OCCUPANT BUILDING DATA

FIRST FLOOR	8,402 SQ.FT.
SECOND FLOOR	7,932 SQ.FT.
THIRD FLOOR	8,283 SQ.FT.
FOURTH FLOOR	3,231 SQ.FT.
FOURTH FLOOR	27,848 SQ.FT.

BOMA METHOD

BOMA 2024 FOR OFFICE BUILDINGS:
(ANSI/BOMA Z65.1–2024)

2030 HARRISON STREET, SAN FRANCISCO, CA

THIRD FLOOR PLAN – SINGLE OCCUPANT BUILDING

A&A Graphic Services, inc.
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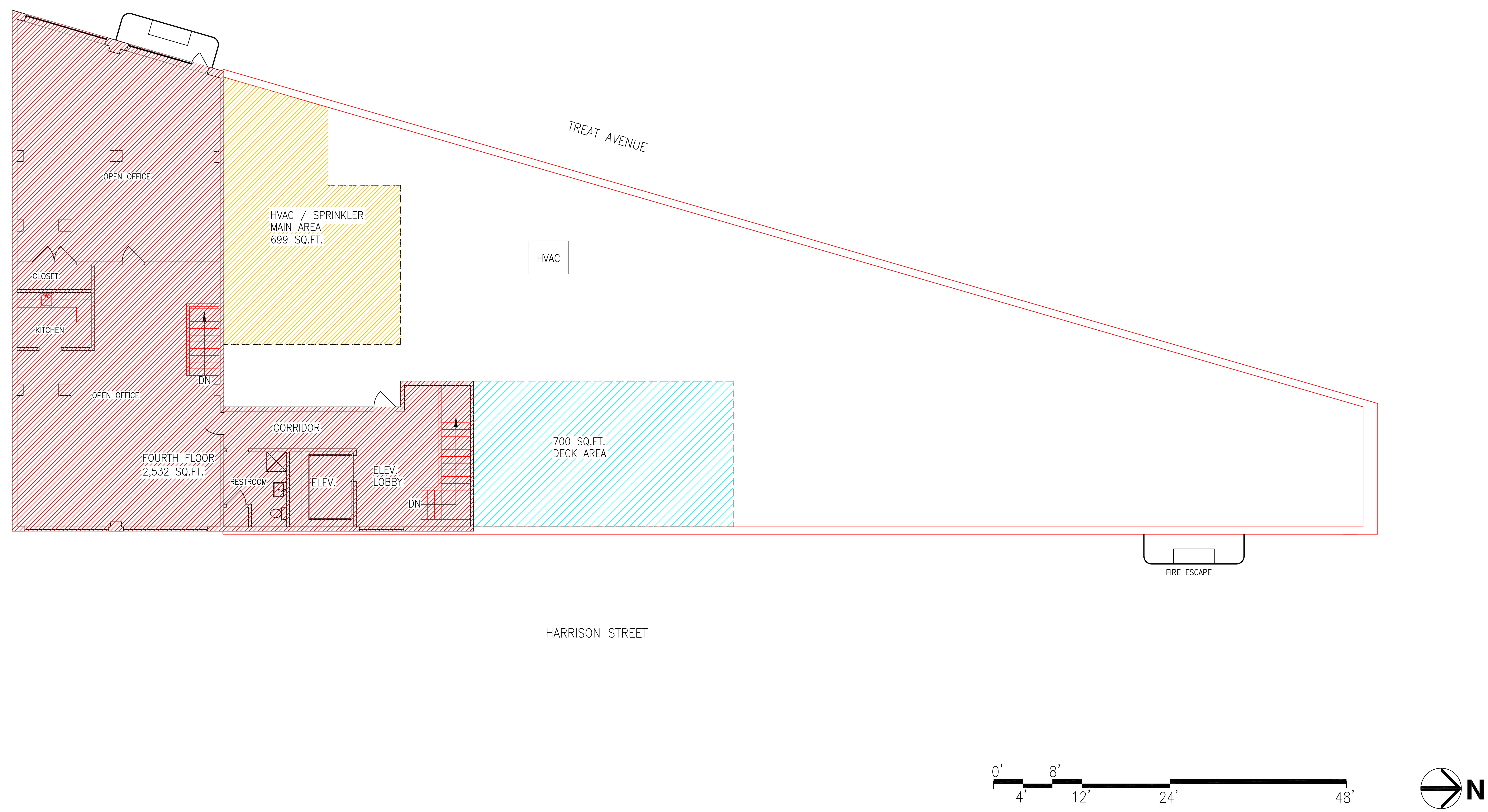

SINGLE OCCUPANT BUILDING DATA

FIRST FLOOR	8,402 SQ.FT.
SECOND FLOOR	7,932 SQ.FT.
THIRD FLOOR	8,283 SQ.FT.
FOURTH FLOOR	3,231 SQ.FT.
FOURTH FLOOR	27,848 SQ.FT.

BOMA METHOD

BOMA 2024 FOR OFFICE BUILDINGS:
(ANSI/BOMA Z65.1–2024)

2030 HARRISON STREET, SAN FRANCISCO, CA

FOURTH FLOOR PLAN - SINGLE OCCUPANT BUILDING

A&A Graphic Services, inc.
2426 Homestead Circle
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Appendix D

Seismic Loss Estimate

268064 2030 Harrison Street, San Francisco, CA

<u>Thiel Zsutty PML Estimate (SEL)</u>

Building	Original Building	
k =	0.651	
b =	0.41	
	large area wood framed buildings and other wood frames	
m =	1	
	Combined building period and site period (Table 10)	
s =	0.74	
	Soil information (Site Class D, Ss > 1.25g, Table 9)	
a =	0.64	475 yr return period
	2014 USGS acceleration data	
j =	0.606	

P = k x b x m x s x a ^ j

P =	15%	(SEL)
SUL =	27%	(SUL)

268064 2030 Harrison Street, San Francisco, CA

<u>Thiel Zsutty PML Estimate (SEL)</u>

Building Addition Building

k = 0.651

b = 0.26
Concrete shear wall without interior frame, low-rise

m = 1
Combined building period and site period (Table 10)

s = 0.74
Soil information
(Site Class D, Ss > 1.25g, Table 9)

a = 0.64 475 yr return period
2014 USGS acceleration data

j = 0.606

P = k x b x m x s x a ^ j

P =	10%	(SEL)
SUL =	17%	(SUL)

JOB #

268064

ENTRY CELL

	Relative Value (RV)	Area (sf)	Area * RV ($)	SUL*RV*A ($)	SEL*RV*A ($)	SUL (%)	SEL (%)
Original Building	1	18,660	$18,660	$5,038	$2,799	27%	15%
Addition Building	1	7,660	$7,660	$1,302	$766	17%	10%
Total		26,320	$26,320	$6,340	$3,565		
		Mathematical Aggregate		24.1%	13.5%		

CALCULATED AGGREGATE	
SEL_{agg}	**14%**
SUL_{agg}	**23%**

Appendix E

Modified Mercalli Intensity (MMI) Scale

MODIFIED MERCALLI INTENSITY (MMI) SCALE

MMI Value	*Description of Shaking Severity*	*Summary Damage Description*	*Full Description*
I			Not felt. Marginal and long period effects of large earthquakes.
II			Felt by persons at rest, on upper floors, or favorably placed.
III			Felt indoors. Hanging objects swing. Vibration like passing of light trucks. Duration estimated. May not be recognized as an earthquake.
IV			Hanging objects swing. Vibration like passing of heavy trucks; or sensation of a jolt like a heavy ball striking the walls. Standing motor cars rock. Windows, dishes, doors rattle. Glasses clink. Crockery clashes. In the upper range of IV, wooden walls and frame creak.
V	Light	Pictures Move	Felt outdoors; direction estimated. Sleepers wakened. Liquids disturbed, some spilled. Small unstable objects displaced or upset. Doors swing, close, open. Shutters, pictures move. Pendulum clocks stop, start, change rate.
VI	Moderate	Objects Fall	Felt by all. Many frightened and run outdoors. Persons walk unsteadily. Windows, dishes, glassware broken. Knickknacks, books, etc., off shelves. Pictures off walls. Furniture moved or overturned. Weak plaster and masonry D cracked. Small bells ring (church, school). Trees, bushes shaken (visibly, or heard to rustle).
VII	Strong	Nonstructural Damage	Difficult to stand. Noticed by drivers of motor cars. Hanging objects quiver. Furniture broken. Damage to masonry D, including cracks. Weak chimneys broken at roof line. Fall of plaster, loose bricks, stones, tiles, cornices (also unbraced parapets and architectural ornaments). Some cracks in masonry C. Waves on ponds; water turbid with mud. Small slides and caving in along sand or gravel banks. Large bells ring. Concrete irrigation ditches damaged.

MMI Value	*Description of Shaking Severity*	*Summary Damage Description*	*Full Description*
VIII	Very Strong	Moderate Damage	Steering of motor cars affected. Damage to masonry C; partial collapse. Some damage to masonry B; none to masonry A. Fall of stucco and some masonry walls. Twisting, fall of chimneys, factory stacks, monuments, towers, elevated tanks. Frame houses moved on foundations if not bolted down; loose panel walls thrown out. Decayed piling broken off. Branches broken from trees. Changes in flow or temperature of springs and wells. Cracks in wet ground and on steep slopes.
IX	Violent	Heavy Damage	General panic. Masonry D destroyed; masonry C heavily damaged, sometimes with complete collapse; masonry B seriously damaged. (General damage to foundations.) Frame structures, if not bolted, shifted off foundations. Frames racked. Serious damage to reservoirs. Underground pipes broken. Conspicuous cracks in ground. In alluvial areas sand and mud ejected, earthquake fountains, sand craters.
X	Very Violent	Extreme Damage	Most masonry and frame structures destroyed with their foundations. Some well-built wooden structures and bridges destroyed. Serious damage to dams, dikes, embankments. Large landslides. Water thrown on banks of canals, rivers, lakes, etc. Sand and mud shifted horizontally on beaches and flat land. Rails bent slightly.
XI			Rails bent greatly. Underground pipelines completely out of service.
XII			Damage nearly total. Large rock masses displaced. Lines of sight and level distorted. Objects thrown into the air.

Masonry A: Good workmanship, mortar, and design; reinforced, especially laterally, and bound together by using steel, concrete, etc.; designed to resist lateral forces.

Masonry B: Good workmanship and mortar; reinforced, but not designed in detail to resist lateral forces.

Masonry C: Ordinary workmanship and mortar; no extreme weaknesses like failing to tie in at corners, but neither reinforced nor designed against horizontal forces.

Masonry D: Weak materials, such as adobe; poor mortar; low standards of workmanship; weak horizontally.

Appendix F

Qualifications

James A. McDonald

P.E., S.E.
Principal
T: 213.271.1912
E: jamcdonald@sgh.com

REGISTRATIONS

Structural Engineer

AZ, CA

Civil Engineer

CA

Professional Engineer

UT

OTHER

Structural Engineer's Association of Southern California
Earthquake Engineering Research Institute

EDUCATION

University of Illinois, Champaign-Urbana, IL
M.S. in Structural Engineering, 1996

U.S. Military Academy, West Point, NY
B.S. in Civil Engineering, 1989

Jim McDonald's practice includes the structural design of education, healthcare, commercial, and residential buildings; seismic evaluation and upgrade of buildings, including power generation facilities; structural condition investigations rehabilitation of concrete, steel and wood buildings; and evaluations of bridges, condition evaluations of maritime structures, and ships.

Experience

- Simpson Gumpertz & Heger Inc. From 2010 to present.
- EBI Consulting. From 2004 to 2010.
- Myers Houghton Partners Structural Engineers (MHP). From 2002 to 2004.
- Degenkolb Engineers (DE). From 1996 to 2002.

Structural engineering projects

- **LA County Sanitation District, Terminal Island Water Reclamation Plant, San Pedro, CA.** Assessed Tank 1 to understand the condition of the primary sedimentation tank and the north end valve gallery, which are partially buried structures, and recommended repairs.
- **Orange County Sanitation District, Orange County, CA.** Designed seismic retrofits for seven buildings at Plant 1, including conducting an ASCE 41 Tier 3 analysis of the Control Center, a critical facility Risk Category IV.
- **Southern California Edison (SCE), CA.** Performed plant-wide seismic fragility analyses, including ASCE 41 evaluation and retrofit recommendations for seventeen electric generation plants, including thirteen hydroelectric plants.
- **SCE, CA.** Performed ASCE 41 Tier 1 and Tier 2 analysis of four Risk Category IV substation control buildings and developed schematic retrofit schemes to achieve immediate occupancy performance.
- **SCE Center Peaker, Norwalk, CA.** Seismic retrofit of various equipment, flat-bottom storage tanks, and enclosures at an electrical generation facility.
- **Applied Energy Services (AES) Southern California Power Plants, Alamitos and Huntington Beach, CA.** Assessed and mitigated column vibration in a newly commissioned steel-framed air-cooled condenser building, avoiding costly studies and enabling seismic upgrades at no added cost to the client.
- **City of Oxnard Riverpark Testing, Oxnard, CA.** Investigation, including coring, strength testing, petrography, and chemical analysis of potentially deteriorated storm-drain box culvert.
- **Robinson Nuclear Plant, Hartsville, SC.** Performed a one-unit seismic probabilistic risk assessment (SPRA), including all safety related structures, equipment, slopes, and dams with liquefaction and lateral spreading hazards.

Appendix G

ASTM Summary of Findings

<u>ASTM 2557-24 and E-2026-24 SUMMARY OF REPORT FINDINGS</u>

Property Name: **2030 Harrison Street**

Property Address: **2030 Harrison Street, San Francisco, CA**

Report Title and Date: **Seismic Risk Assessment, Project No. 268064.00, 1 May 2026**

Site Visit Performed By/Date: **James McDonald, S.E., CA Lic. No. S4766/17 April 2026**

Evaluation Performed By: **James McDonald, Structural Engineer, CA Lic. No. S4766/29 April 2026**

Drawings Reviewed:

- Building Floor Plans by A&A Graphic Services, Inc.

Methods to Determine Site Ground Motions and Site Stability: **USGS published information**

PML Defined As: **SEL (50% probability of exceedance in 50 years / 50% confidence level) and SUL (10% probability of exceedance in 50 years / 90% confidence level)**

Analysis Methods/Procedures Used to Determine PML: **Probabilistic analysis using Thiel-Zutty Method**

Analysis Methods/Procedures Used to Determine Building Stability: **Visual observation of the building and review of available drawings**

ASTM E2026 and E2557 Level of Investigation: **1** with scope as defined by BS 1, G 1, SS 1, D 1

The Report includes the Following Exceptions to ASTM Requirements: **None**

James A. McDonald has performed a probable maximum loss (PML) evaluation for earthquake due diligence assessment in conformance with the scope and limitations of ASTM Guide E2026 and Practice E2557 for a Level **1** assessment of **2030 Harrison Street, San Francisco, CA**. This PML evaluation for earthquake due diligence assessment has determined the **SEL_{475} to be 14%** and the **SUL475 to be 23%**. The structures **meet** the building stability requirements as determined by **the review of the visually exposed conditions, review of the available drawings, and engineering judgment** and **meet** the site stability requirements.

The undersigned hereby acknowledges that the above-referenced report is considered an engineering work product, and as such, confirms that he is qualified by licensing and experience to conduct such review. Furthermore, the report was prepared by or under the direct supervision of the undersigned as specified by state laws or codes including, but not limited to, the site visit, determination of building stability, and estimation of probable maximum loss. The information and opinions in the report are subject to the limitations and qualifications contained therein.

REGISTERED PROFESSIONAL ENGINEER
JAMES McDONALD
No. S 4766
STRUCTURAL
STATE OF CALIFORNIA

James A. McDonald, S.E.
CA License No. S4766