

**UC Seismic Evaluation – 13160 Mindanao Way**

**Date:** 3/26/2020  
**UC Campus:** UCLA – off campus  
**Building Name:** 13160 Mindanao Way  
**Building Address:** 13160 Mindanao Way, Marina del Rey, CA 90292  
**CAAN ID:** N/A  
**Auxiliary Building ID:** N/A



**Summary of information provided by Evaluator:** Nabih Youssef Associates Structural Engineers

**UCOP Seismic Performance Level (or “Rating”):** IV based on ASCE 41-17 Tier 1 evaluation.

*Plan Image or Aerial Photo*



*Exterior Elevation Photo*



**Site location coordinates (decimal):**

Latitude: 33.984381  
Longitude: -118.436846

**Is this a “Partial” Building (i.e., a single structure in a complex building? (Y or N):** N

**ASCE 41-17 Model Building Type:**

Longitudinal Direction: S1A – Steel Moment Frames with Flexible Diaphragms  
Transverse Direction: S1A – Steel Moment Frames with Flexible Diaphragms

**Number of stories:**

Above grade: 3                      Below grade: 1 (partial)

**Original Building Design Code and Year:** 1979 UBC (Assumed)

**Retrofit Building Design Code and Year:** Voluntary (UC Seismic Policy), ASCE 41-13

**Cost Range to Retrofit (if applicable):** N/A

**Building information used in this evaluation:**

Structural drawings and calculations by John Labib & Associates (18512), “13160 Mindanao Way Voluntary Seismic Strengthening”, October 30, 2018.

Structural drawings by Brian L. Cochran & Associates, “Western Federal Savings Building”, June 18, 1981.

Preliminary Geotechnical Engineering Investigation for 13160 Mindanao Way and 4501-4509 Glencoe Avenue, SASSAN Geosciences, Inc. (5HAN314), March 7, 2016.

Earthquake Zones of Required Investigation Venice Quadrangle, California Geological Survey, March 25, 1999.

**Scope for completing this form:**

Review structural drawings and ASCE 41-17 Tier 1 evaluation.

**Brief description of structure:**

The 127,132 sf building is irregular-shaped in-plan with three stories above-grade and a single-partial subterranean level parking. 2-story reinforced concrete building with approximately 127,132 square feet built circa 1937. The building is irregular-shaped with re-entrant corners and setbacks, and overall dimensions of approximately 179’ by 72’.

Foundation System: The foundation system consists of shallow isolated footings supporting columns.

Structural System for Vertical (gravity) loads: The roof and floors are constructed of structural plywood spanning to TJI joists supported by tapered steel girders. The girders are supported by wide flange steel columns that are continuous to the first floor where they are directly supported by reinforced concrete columns below.

The first floor is constructed of 10” thick two-way reinforced concrete slab spanning to reinforced concrete columns that are continuous to the foundation.

Structural System for Lateral (seismic/wind) loads: The plywood sheathed roof and floors act as structural diaphragms to transfer seismic forces to distributed welded steel moment frames.

**BACKGROUND INFORMATION**

**Site Information:** Site Class (A-F): D (per geotech report)

Geologic Hazards (Y or N):

- Fault Rupture: N (CGS EZRIM Venice)
- Liquefaction: N (geotech report)
- Landslide: N (CGS EZRIM Venice)

Site-specific Ground Motion Study? N

Site-modified Spectral Response (0.2s), Hazard Level BSE-2E,  $S_{XS}$ : 1.428

Site-modified Spectral Response (1.0s), Hazard Level BSE-2E,  $S_{XL}$ : 0.889

Estimated Fundamental Period (seconds):

- Longitudinal Direction: 0.67s
- Transverse Direction: 0.67s

**Summary of Tier 1 Seismic Evaluation Structural Non-compliances/Findings Significantly Affecting Rating Determination:**

Significant Structural Deficiencies, Potentially Affecting *Seismic Performance Level* Designation:

- Lateral System Stress Check (wall shear, column shear or flexure, or brace axial as applicable)
- Load Path
- Adjacent Buildings
- Weak Story
- Soft Story
- Geometry (vertical irregularities)
- Torsion
- Mass – Vertical Irregularity
- Cripple Walls
- Wood Sills (bolting)
- Diaphragm Continuity
- Openings at Shear Walls (concrete or masonry)
- Liquefaction
- Slope Failure
- Surface Fault Rupture
- Masonry or Concrete Wall Anchorage at Flexible Diaphragm
- URM wall height to thickness ratio
- URM Parapets or Cornices
- URM Chimney
- Heavy Partitions Braced by Ceilings
- Appendages

**Brief Description of Anticipated Failure Mechanism:**

Beams are expected to hinge resulting in excessive story drifts and P-Delta moment on columns.

**Comments and Additional Deficiencies:**

Moment frames have offsets and lack redundancy at the roof level. In addition, frames are flexible. However, calculations indicate that the frames have adequate strength.

**Seismic Retrofit Concept Sketches/Description (only if above-listed rating is V or greater):** N/A

**Appendices:**

- A. ASCE 41-17 Tier 1 Checklists
- B. Quick Check Calculations
- C. JLA Structural Calculations