

UC Seismic Evaluation

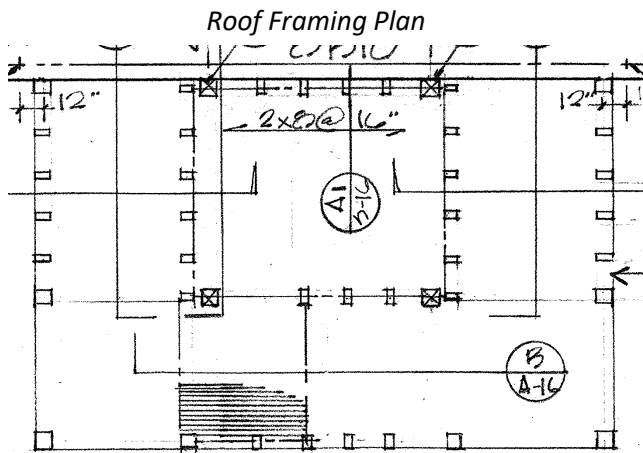
Date: 06/11/2021
UC Campus: UCLA – on campus
Building Name: Sunset Rec Center
Building Address: 111 Easton Drive, Los Angeles, CA 90024
CAAN ID: 4205A.2
Auxiliary Building ID¹: N/A



Summary of information provided by Evaluator:

Nabih Youssef Associates Structural Engineers

UCOP Seismic Performance Level² (or “Rating”) based on ASCE 41-17 Tier 1/Tier 2 evaluation findings: VI



Exterior Elevation Photo



Site location coordinates (decimal):

Latitude: 34.070524
 Longitude: -118.45107

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

ASCE 41-17 Model Building Type³:

Longitudinal Direction: W1 – Wood Shear Wall
 Transverse Direction: W1 – Wood Shear Wall

Number of stories:

Above grade: 3
 Below grade: 0

¹ Applicable only for individual buildings that are structurally separate units within a building complex. Each auxiliary building shall be designated with the main building CAAN ID with a decimal number suffix (i.e. main building CAAN ID 5534; auxiliary building CAAN ID 5534.1). Auxiliary building ID is null for a single building or the main building in a building complex.

² The designated Seismic Performance Level shall be a Roman numeral associated with the most applicable performance description from Table A.1 in Appendix A of the UC Seismic Safety Policy.

³ If a building has multiple building types in one story, the model building type should be designated based on engineering judgement as the lateral system that would have the most predominantly negative effect on the seismic behavior of the building in that respective direction.

Original Building Design Code and Year: Building Code of The City of Los Angeles 1962 Edition
Retrofit Building Design Code and Year: N/A

Cost Range to Retrofit (if applicable)⁴: Low

“Low” cost-range corresponds to a complete retrofit cost less than \$50 per square foot (sf), “Medium” cost-range corresponds to a complete retrofit cost greater than \$50 per sf and less than \$200 per sf, “High” cost-range corresponds to a complete retrofit cost greater than \$200 per sf and less than \$400 per sf, and “Very High” cost-range corresponds to a complete retrofit cost greater than \$400 per sf.

Building information used in this evaluation:

Structural drawings by John Kariotis & Associates Structural Engineers “Canyon Recreation Center”, dated 09/03/1963

Scope for completing this form:

Reviewed structural drawings for original construction and performed ASCE 41-17 Tier 1 and Tier 2 evaluation.

Brief description of structure:

The 3-story tower is primarily used to support a 3-tier stair to access adjacent buildings on various elevations on the site. The top level includes a small office space ~100 sf. The building is square in plan. The original drawings indicate a wood trellis structure above the roof which has since been removed due to deterioration of the wood members.

Foundation System: The foundation system consists of concrete grade beams supported by deep concrete piers. A 4” thick concrete slab forms the ground floor.

Structural System for Vertical (gravity) loads: The roof consists of plywood sheathing supported by wood beams which are supported by 4 wood posts. The posts are continuous to the foundation and supported by concrete grade beam and deep concrete piers.

Structural System for Lateral (seismic/wind) loads: The plywood sheathed roof and floors act as diaphragms to transfer seismic forces to light framed shear walls. The walls are continuous to the foundation.

BACKGROUND INFORMATION

Site Information:

Site Class (A-F): D; Default

Geologic Hazards (Y or N):

- Fault Rupture: N; EZRIM Beverly Hills
- Liquefaction: N; USGS
- Landslide: N; EZRIM Beverly Hills

Site-specific Ground Motion Study? N

Site-modified Spectral Response (0.2s), Hazard Level BSE-2E, S_{X5} : 1.844

Site-modified Spectral Response (1.0s), Hazard Level BSE-2E, S_{X1} : 0.943

Estimated Fundamental Period: 0.32 seconds

Falling Hazards Assessment Summary: None

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

Note: There is significant deterioration of the wood stair framing and treads due to termite damage and dry rot.

Brief Description of Anticipated Failure Mechanism:

The deteriorated exposed wood framing and treads.

Comments and Additional Deficiencies:

Due to evidence of substantial deterioration at the site, the existing wood framing cannot be relied upon to safely support the original design loads. Deteriorated wood framing increases the probability of collapse during a future earthquake.

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

Evaluation of all exposed and non-exposed wood framing to validate the in-situ material properties. Removal and replacement in kind of all deteriorated wood members.

Appendices:

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