NABIH YOUSSEF ASSOCIATES
STRUCTURAL ENGINEERS

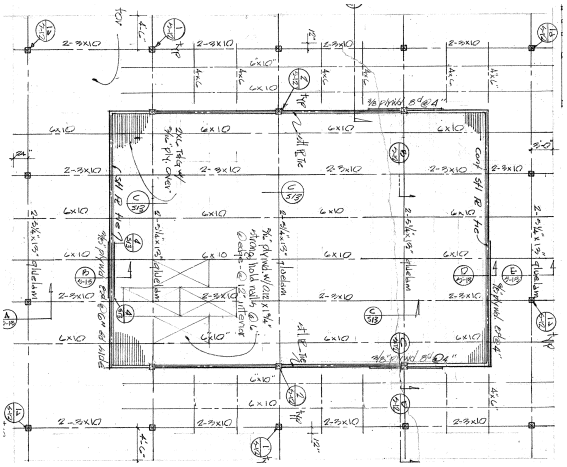
UC Seismic Evaluation

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
Auxiliary Building ID[1]:	N/A

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

UCOP Seismic Performance Level[2] (or "Rating") based on ASCE 41-17 Tier 1/Tier 2 evaluation findings: VII

Roof Framing Plan



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 Type[3]:
Longitudinal Direction: W1 – Wood Shear Wall
Transverse Direction: W1 – Wood Shear Wall

Number of stories:
Above grade: 2
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.
[1] 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.
[1] 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]: High
"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 2-story building includes a 1990 sf multi-purpose room above the 2nd floor and an exterior deck approximately 2470 sf. The building is rectangular in shape above the 2nd floor. The first floor includes 3 enclosed rooms measuring approximately 490 sf. The first-floor rooms are rectangular in plan.

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 and wood bearing walls. The interior roof beams are supported by rectangular wood posts. The wood posts and bearing walls are discontinuous at the second floor. The second floor is framed with wood decking on the exterior and plywood sheathing on the interior. The decking and floor sheathing is supported by wood beams and girders which in turn are supported by rectangular wood posts. The lower-level framing is mostly. exposed to the elements. The wood posts are supported by concrete grade beam and deep concrete piers.

Structural System for Lateral (seismic/wind) loads: The plywood sheathed roof and floor acts as diaphragms to transfer seismic forces to distributed light framed shear walls. The second-floor walls are not continuous to the foundation. There are fewer shear walls on the ground in both primary directions of the structure than the upper floors.

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_{XS}: 1.844

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

Estimated Fundamental Period: 0.21 seconds
Falling Hazards Assessment Summary: Wood Trellis surrounding the 2nd floor MPR room has significant deterioration. Many members have already been removed.

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:

The seismic demand of the light framed shear walls at the ground floor exceeds their capacity.
The second-floor beam framing supporting the wood shear walls above are significantly deteriorated due to dry rot and termite damage.
Temporary wood shoring is currently in place to provide additional vertical support for the upper framing.

Comments and Additional Deficiencies:

The existing wood framing cannot be relied upon to safely support. 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):

Provide a material assessment of all exposed and non-exposed wood framing.
Remove and replace in-kind all deteriorated wood structural members.
Provide additional shear walls in both directions at the ground floor.

Appendices:

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