

UC Seismic Evaluation – Portola Building

Date: 10/30/2020
UC Campus: UCLA
Building Name: Portola Building
Building Address: 460 Portola Plaza, Los Angeles, CA 90095
CAAN ID: 4404
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: IV

Plan Image or Aerial Photo



Exterior Elevation Photo



Site location coordinates (decimal):

Latitude: 34.070240
 Longitude: -118.441806

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

ASCE 41-17 Model Building Type³:

Longitudinal Direction: W2 – Wood Frames
 Transverse Direction: W2 – Wood Frames

Number of stories:

Above grade: 1
 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: Uniform Building Code 1973 Edition

Retrofit Building Design Code and Year: N/A

Cost Range to Retrofit (if applicable)⁴: N/A

“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 Frank O. Gehry Associates, Inc., “Placement & Career Planning Center”, dated June 9, 1975

Scope for completing this form:

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

Brief description of structure:

The 1-story building has an area of approximately 16,714 square feet and was built in 1976. The building is irregular-shaped in-plan with re-entrant corners.

Foundation System: The typical foundation system consists of continuous concrete strip wall footing with 6”-12” in thickness and concrete spread footing with 12” in width.

Structural System for Vertical (gravity) loads: The ground floor consists of 4” minimum thick concrete slab on grade. The roof consists of plywood sheathing supported by 2x wood joists spanning to glued laminated girders. The girders are supported by wood posts and steel pipe columns that are continuous to the foundations.

Structural System for Lateral (seismic/wind) loads: The roof plywood sheathing act as diaphragms to transfer seismic forces to wood shear walls in each direction.

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

⁴ Assume a complete retrofit conforming to the current UC Seismic Safety Policy. Note this range includes all construction costs, including code upgrades (e.g., ADA, fire and life safety, mechanical, electrical, plumbing) triggered by the seismic retrofit. No specific estimate is required to be supplied at this time (i.e., provide an approximate cost to retrofit using Low, Medium, High or Very High cost-range categories). It is acknowledged that such a cost range is assumed to be based only on the engineer’s rough estimate and is not intended to require input from a professional cost estimator. For estimation purposes, CSEs may judgmentally determine an approximate cost range for seismic retrofits based on recent relevant experience, and then apply a multiplier to approximate total construction costs.

Site-specific Ground Motion Study? N

Site-modified Spectral Response (0.2s), Hazard Level BSE-1E, S_{XS} : 0.897

Site-modified Spectral Response (1.0s), Hazard Level BSE-1E, S_{X1} : 0.517

Estimated Fundamental Period (seconds):

- Longitudinal Direction: 0.11s
- Transverse Direction: 0.11s

Falling Hazards Assessment Summary: None observed.

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: N/A

Comments and Additional Deficiencies: N/A

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