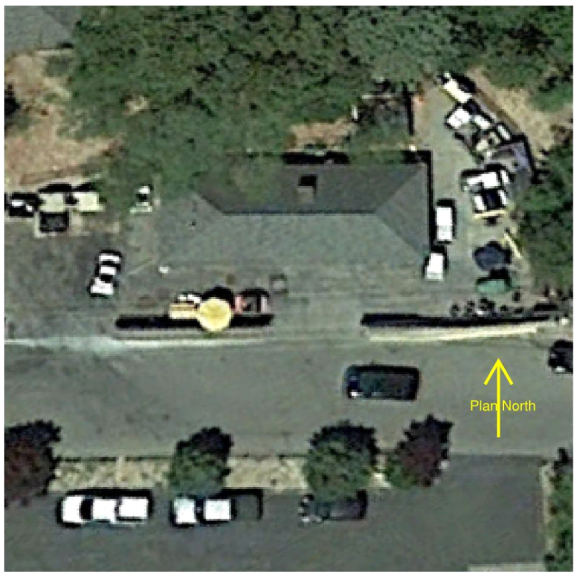
UNIVERSITY OF CALIFORNIA

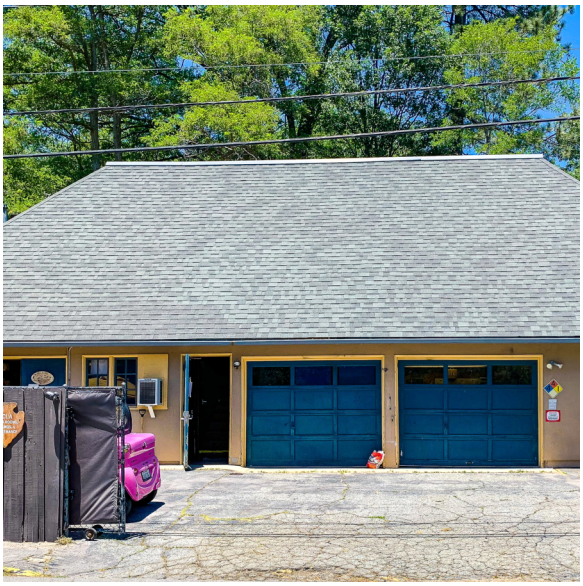
BUILDING REPORT REQUIREMENTS
ASCE 41-17 TIER 1 SEISMIC EVALUATIONS

BUILDING REPORT

1) UC Campus: Los Angeles
2) Building Name: Lake Arrowhead Maintenance Building
3) Building CAAN ID: 4201B
4) Auxiliary Building ID:
5) Date of Evaluation: 6/30/2020
6) Evaluation by: Englekirk, TAS
7) Seismic Performance Rating and Basis of Rating: V, ASCE 41-17 Tier 1



8) Plan Image or Aerial Photo



9) Exterior Elevation Photo

10) Site Location
  (a) Latitude Decimal Coordinates: 34.26653
  (b) Longitude Decimal Coordinates: -117.18521
11) ASCE 41-17 Model Building Type and Description
  (a) Longitudinal Direction: W1 and W2: Wood frame, wood shear panels
  (b) Transverse Direction: W1 and W2: Wood frame, wood shear panels
12) Number of Stories
  (a) Above grade: 1
  (b) Below grade: 0
13) Original Building Design Code & Year:
14) Retrofit Building Design Code & Year (if applicable):
15) Cost Range to Retrofit (if applicable): (Low, Medium, High or Very High): Low

Comments: This is called Facility 1. No drawings provided. UCLA records indicate building constructed in 1971. There are drawings for the adjacent Facility 2, which has a similar appearance. There is a mezzanine level. No tension member to tie walls/roof joists together at middle section. Limited shear wall length in the east&west elevations due to large door/window openings. The diaphragm sheathing of the mezzanine

consists of straight sheathing, not plywood or diagonal sheathing, and doesn't extend to the exterior walls, which creates a diaphragm discontiniuty. There is no shear blocking between the roof/floor joists to trasnfer the diaphragm load to the exterior walls.

BACKGROUND INFORMATION

Site Information

16) Site Class (A – F) and Basis of Assessment
- (a) Site Class: D
- (b) Site Class Basis: Unknown (Default)
- (c) Site Class Company: None
- (d) Site Class Report Date: None
- (e) Site Class Ref Page No.: None

17) Geologic Hazards
- (a) Fault Rupture (Yes, No or Unknown) and Basis of Assessment: No, San Bernardino County Land Use Map
- (b) Liquefaction (Yes, No or Unknown) and Basis of Assessment: No, San Bernardino County Land Use Map
- (c) Landslide (Yes, No or Unknown) and Basis of Assessment: No, San Bernardino County Land Use Map

18) Site-specific Ground Motion Study? (Yes or No) No

Seismic design acceleration parameters of interest:	
For BSE-1N	1.249 and 0.805
For BSE-1E	0.919 and 0.545

19) Estimated Fundamental Period (seconds)
- (a) Longitudinal: 0.16
- (b) Transverse: 0.16

20) Falling Hazards Assessment Summary: None noted except unanchored building contents

21) Structural Non-Compliances/Findings Significantly Affecting Rating Determination Summary
Significant Structural Deficiencies, Potentially Affecting *Seismic Performance Rating* Designation:

- (a) Lateral System Stress Check (wall shear, column shear or flexure, or brace axial as applicable): Yes, wall shear stress deficiency noted
- (b) Load Path: Yes, deficiency noted
- (c) Adjacent Buildings: No deficiency noted
- (d) Weak Story: No deficiency noted
- (e) Soft Story: No deficiency noted
- (f) Geometry (vertical irregularities): No deficiency noted
- (g) Torsion: Not Applicable
- (h) Mass – Vertical Irregularity: No deficiency noted

(i) Cripple Walls: No deficiency noted
(j) Wood Sills (bolting): No deficiency noted
(k) Diaphragm Continuity: No deficiency noted
(l) Openings at Shear Walls (concrete or masonry): Not Applicable
(m) Liquefaction: No
(n) Slope Failure: No
(o) Surface Fault Rupture: No
(p) Masonry or Concrete Wall Anchorage at Flexible Diaphragm: Not Applicable
(q) URM wall height to thickness ratio: Not Applicable
(r) URM Parapets or Cornices: Not Applicable
(s) URM Chimney: Not Applicable
(t) Heavy Partitions Braced by Ceilings: No deficiency noted
(u) Appendages: No deficiency noted

22) Brief Description of Anticipated Failure Mechanism
Failure of shear wall panels and nailing, hold-downs and/or compression posts. Excessive out-of-plane wall deflection due to lack of tension tie/diaphragm at top plate at middle portion of building.

23) Seismic Retrofit Concept Sketches/Description (only required for buildings rated V or worse)
Provide hold-downs and additional shear walls. Stiffen or tie top plate for out-of-plane loads where tension ties not provided.

Building Report Appendices

A) ASCE 41-17 Tier 1 Checklists (Structural only)

B) Quick Check Calculations