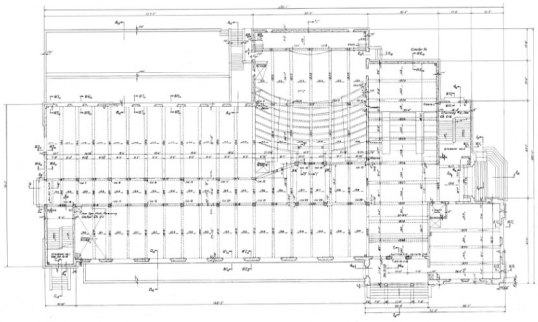
UNIVERSITY OF CALIFORNIA

**BUILDING REPORT REQUIREMENTS**
**ASCE 41-17 TIER 1 SEISMIC EVALUATIONS**

**BUILDING REPORT**

1) UC Campus: Los Angeles
2) Building Name: Dodd Hall
3) Building CAAN ID: 4213
4) Auxiliary Building ID:
5) Date of Evaluation: 7/15/2020
6) Evaluation by: Englekirk, TAS / CC
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: 34.0726629
    (b) Longitude Decimal Coordinates: -118.4392759
11) ASCE 41-17 Model Building Type and Description
    (a) Longitudinal Direction: C2 and C2a: Reinforced concrete shear walls
    (b) Transverse Direction: C2 and C2a: Reinforced concrete shear walls
12) Number of Stories
    (a) Above grade: 3
    (b) Below grade: 1
13) Original Building Design Code & Year: UBC-1946
14) Retrofit Building Design Code & Year (if applicable):
15) Cost Range to Retrofit (if applicable): (Low, Medium, High or Very High): Medium


Comments: Insufficient column confinement beneath (E) discontinuous shear walls. Vertical irregularities.

**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, CGS Maps
- (b) Liquefaction (Yes, No or Unknown) and Basis of Assessment: No, CGS Maps
- (c) Landslide (Yes, No or Unknown) and Basis of Assessment: No, CGS Maps

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

| Seismic design acceleration parameters of interest: | |
|---|---|
| For BSE-1N | 1.637 and 0.83 |
| For BSE-1E | 2.456 and 1.245 |

19) Estimated Fundamental Period (seconds)
- (a) Longitudinal: 0.51
- (b) Transverse: 0.51

20) Falling Hazards Assessment Summary: None noted.

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, other deficiency noted
- (b) Load Path: No deficiency noted
- (c) Adjacent Buildings: No deficiency noted
- (d) Weak Story: No deficiency noted
- (e) Soft Story: No deficiency noted
- (f) Geometry (vertical irregularities): Yes, vertical irregularity noted
- (g) Torsion: No deficiency noted
- (h) Mass – Vertical Irregularity: No deficiency noted
- (i) Cripple Walls: Not Applicable
- (j) Wood Sills (bolting): Not Applicable
- (k) Diaphragm Continuity: No deficiency noted
- (l) Openings at Shear Walls (concrete or masonry): No deficiency noted
- (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
Concrete gravity column failure due to deformation compatibility drift.

23) Seismic Retrofit Concept Sketches/Description (only required for buildings rated V or worse)
Upgrade to Seismic Rating Level IV: existing column strengthening below discontinuous shear walls using FRP wrapping.

Upgrade to Seismic Rating Level III: existing column strengthening using FRP wrapping at all columns. Strengthening of several existing concrete shear walls using FRP and/or shotcrete.

**Building Report Appendices**
A) ASCE 41-17 Tier 1 Checklists (Structural only)

B) Quick Check Calculations