



BUILDING REPORT REQUIREMENTS ASCE 41-17 TIER 1 SEISMIC EVALUATIONS

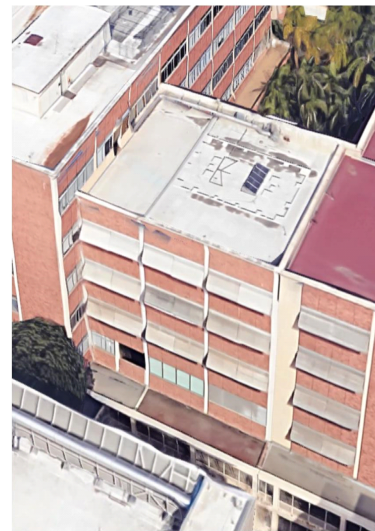
BUILDING REPORT

- 1) UC Campus: [Los Angeles](#)
- 2) Building Name: [Math Sci Bldg - Addition South Wing](#)
- 3) Building CAAN ID:
- 4) Auxiliary Building ID: [4359.2](#)
- 5) Date of Evaluation: [8/27/2020](#)
- 6) Evaluation by: [Englekirk, TAS](#)
- 7) Seismic Performance Rating and Basis of Rating: [V, ASCE 41-17 Tier 1](#)

MATH SCIENCE BUILDINGS KEY PLAN



8) Plan Image or Aerial Photo



9) Exterior Elevation Photo

- 10) Site Location
 - (a) Latitude Decimal Coordinates: [34.0695771](#)
 - (b) Longitude Decimal Coordinates: [-118.4427578](#)
- 11) ASCE 41-17 Model Building Type and Description
 - (a) Longitudinal Direction: [S1 and S1a: Steel moment-resisting frame](#)
 - (b) Transverse Direction: [S1 and S1a: Steel moment-resisting frame](#)
- 12) Number of Stories
 - (a) Above grade: [4](#)
 - (b) Below grade: [0](#)
- 13) Original Building Design Code & Year: [UBC-1964](#)
- 14) Retrofit Building Design Code & Year (if applicable):
- 15) Cost Range to Retrofit (if applicable): (Low, Medium, High or Very High): [Medium](#)



Comments: [Deficient moment frame connections. The building is supported by the Boelter Hall Annex.](#)



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) [None](#)

Seismic design acceleration parameters of interest:	
For BSE-1N	1.631 and 0.827
For BSE-1E	0.897 and 0.517

19) Estimated Fundamental Period (seconds)

- (a) Longitudinal: [0.99](#)
- (b) Transverse: [0.99](#)

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, frame beam/column connection deficiency noted](#)
- (b) Load Path: [No deficiency noted](#)
- (c) Adjacent Buildings: [Yes, deficiency noted. The gap provided between the main structure of Addition and South Wing is 6" while the gap required per Tier 1 checklist is around 12".](#)
- (d) Weak Story: [No deficiency noted](#)
- (e) Soft Story: [No deficiency noted](#)
- (f) Geometry (vertical irregularities): [No deficiency 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): [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

Moment frame connection failure due to deficient detailing. Potential uplift or sliding off at the base.

23) Seismic Retrofit Concept Sketches/Description (only required for buildings rated V or worse)

Strengthen the moment frame connections. Provide more anchors at the base of the frames to the existing concrete structure below.

Building Report Appendices

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

B) Quick Check Calculations