



BUILDING REPORT REQUIREMENTS
ASCE 41-17 TIER 1 SEISMIC EVALUATIONS

BUILDING REPORT

- 1) UC Campus: Los Angeles
2) Building Name: Engineering IV - Hazardous Gas Storage Facility
3) Building CAAN ID:
4) Auxiliary Building ID: 4256A.1
5) Date of Evaluation: 9/14/2020
6) Evaluation by: Englekirk, TAS/FS
7) Seismic Performance Rating and Basis of Rating: III, ASCE 41-17 Tier 1



8) Plan Image or Aerial Photo



9) Exterior Elevation Photo

- 10) Site Location
(a) Latitude Decimal Coordinates: 34.0687997
(b) Longitude Decimal Coordinates: -118.4440275
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: 1
(b) Below grade: 0
13) Original Building Design Code & Year: UBC-1988
14) Retrofit Building Design Code & Year (if applicable):
15) Cost Range to Retrofit (if applicable): (Low, Medium, High or Very High): Low



Comments: Walls experience low seismic shear stresses per the Tier 1 check. The building has a very regular geometry, with small isolated openings. No strengthening measures are anticipated.



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	1.629 and 0.826
For BSE-1E	0.897 and 0.516

19) Estimated Fundamental Period (seconds)

- (a) Longitudinal: **0.152**
- (b) Transverse: **0.152**

20) Falling Hazards Assessment Summary: **No deficiency 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):
No 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): **No deficiency noted**
- (g) Torsion: **No deficiency noted**
- (h) Mass – Vertical Irregularity: **No deficiency noted**
- (i) Cripple Walls: **No deficiency noted**
- (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: **Not Applicable**
- (u) Appendages: **No deficiency noted**

22) Brief Description of Anticipated Failure Mechanism

Shear or flexural failure in concrete shearwalls. Diaphragm overstress due to high shear demands.

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

None recommended.

Building Report Appendices

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

B) Quick Check Calculations