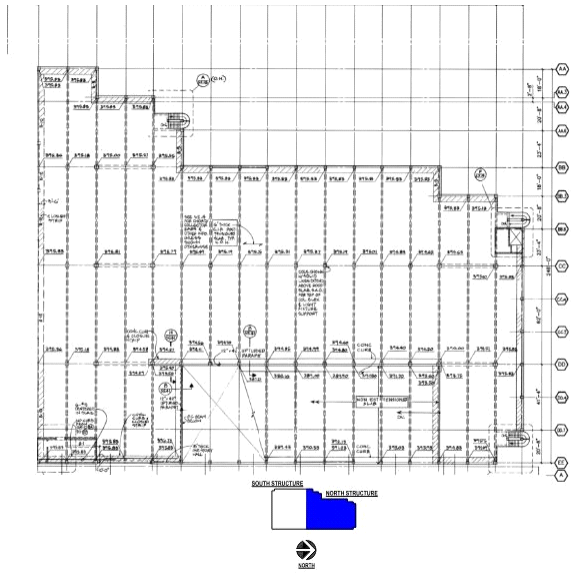




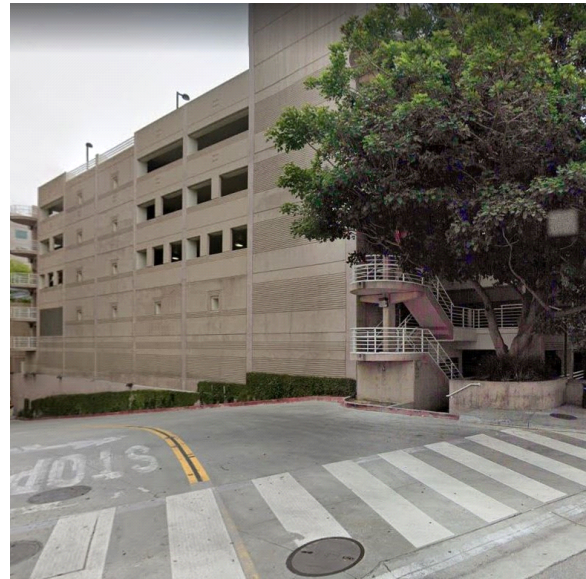
**BUILDING REPORT REQUIREMENTS
ASCE 41-17 TIER 1 SEISMIC EVALUATIONS**

BUILDING REPORT

- 1) UC Campus: [Los Angeles](#)
- 2) Building Name: [Parking Structure 1 \(North Structure\)](#)
- 3) Building CAAN ID: [4342](#)
- 4) Auxiliary Building ID:
- 5) Date of Evaluation: [11/12/2020](#)
- 6) Evaluation by: [Englekirk, AB](#)
- 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: [34.0645667](#)
 - (b) Longitude Decimal Coordinates: [-118.447689](#)
- 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: [5](#)
 - (b) Below grade: [2](#)
- 13) Original Building Design Code & Year: [UBC-1979](#)
- 14) Retrofit Building Design Code & Year (if applicable):
- 15) Cost Range to Retrofit (if applicable): (Low, Medium, High or Very High): [Medium](#)



Comments: Typical 4" Seismic Joint between both parking structures and between Medical Plaza. Separation between Parking Structure and Medical Plaza is satisfied $0.015 \times 21' = 3.78$ in. Separation between North and South Parking structure is not satisfied $0.015 \times 51' = 9.18$ in. However since all floor



levels align with adjacent building floors, pounding of floors is not considered critical. All gravity columns and their reinforcement were provided by Precast Vendor and therefore information not shown on plans.

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	1.623 and 0.823
For BSE-1E	0.895 and 0.515

19) Estimated Fundamental Period (seconds)

- (a) Longitudinal: **0.382**
- (b) Transverse: **0.382**

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): **No deficiency noted. Wall shear stress adequate for Seismic Performance Rating V**
- (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. Shear Wall Elevation on Line EE (North Half) has discontinuous wall between grid 19 and 21. Discontinuity was noted and columns were designed to accommodate ñ 250 kips of seismic forces. Tier 2 Analysis recommended to determine adequacy of the column against expected seismic forces on the lateral wall.**
- (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: **Not Applicable**
- (u) Appendages: **No deficiency noted**

22) Brief Description of Anticipated Failure Mechanism

Shear failure of lightly confined concrete gravity columns due to deformation compatibility. Shear cracking and flexural compression failure of relatively thin, lightly reinforced and inadequately confined concrete shear walls.

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

Added shear walls strength using thickened cross-section or FRP overlay or energy dissipation to reduce drift.

Building Report Appendices

- A) ASCE 41-17 Tier 1 Checklists (Structural only)
- B) Quick Check Calculations