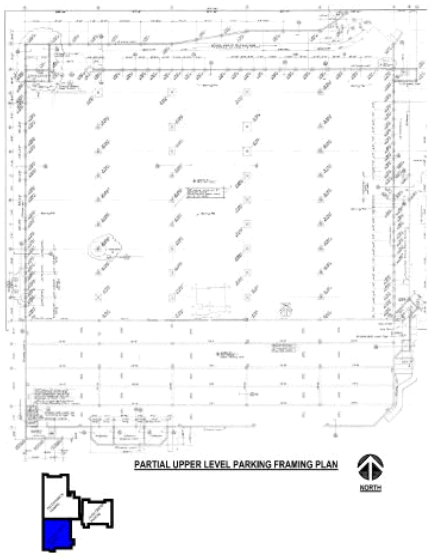
UNIVERSITY OF CALIFORNIA

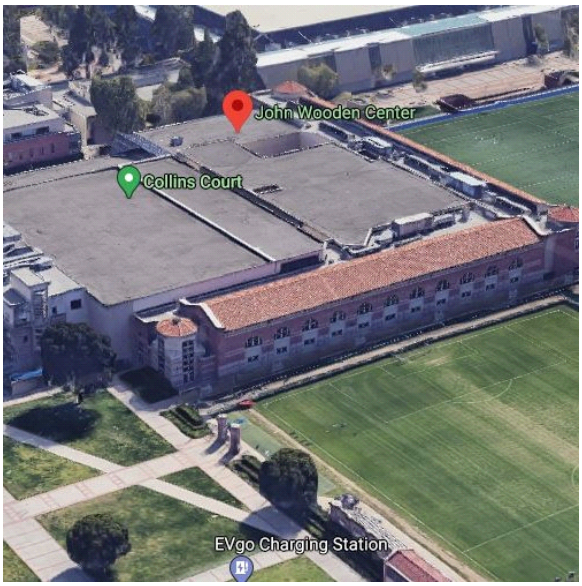
BUILDING REPORT REQUIREMENTS
ASCE 41-17 TIER 1 SEISMIC EVALUATIONS

BUILDING REPORT

1) UC Campus: Los Angeles
2) Building Name: Parking Structure 4 (Wooden Center)
3) Building CAAN ID: 4304
4) Auxiliary Building ID:
5) Date of Evaluation: 12/7/2020
6) Evaluation by: Englekirk, AB
7) Seismic Performance Rating and Basis of Rating: IV, ASCE 41-17 Tier 1



8) Plan Image or Aerial Photo



9) Exterior Elevation Photo

10) Site Location
   (a) Latitude Decimal Coordinates: 34.0725052
   (b) Longitude Decimal Coordinates: -118.4447524
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-1979
14) Retrofit Building Design Code & Year (if applicable):
15) Cost Range to Retrofit (if applicable): (Low, Medium, High or Very High): None

Comments: Parking Structure 4 in Wooden Center refers to the 2 basement levels below the Wooden Center gym. Both parking levels are underground and restrained except in the North side of the parking, where adjacent Parking structure 4 Expansion makes the perimeter wall loose and seismic forces are considered for analysis of lateral system in the N-S Direction. For the E-W direction, soil restrains all levels

of the basement and no analysis is required. For the superstructure portion of this structure (Steel braced frames) the analysis has been performed by KPFF. For the Tier 1 Wooden Center Parking Structure 4 to be consistent with KPFF analysis of the superstructure, the mass, floor height and material properties were obtained from their built model and then used for an independent seismic analysis using an Equivalent Lateral Force method with Tier 1 variables as specified in ASCE 41-17. Discontinuous interior shear walls at the 1st Parking Level are not considered to be critical for the building rating given the seismic base is located at the same level, therefore these walls will unload the seismic shear force and transfer through the diaphragm into the bearing perimeter 12 " concrete walls. Foundation dowels from vertical reinforcement in the wall, the pile caps as well as the top reinforcement in the pile caps seems to be missing from the details provided on the structural set. Although these are non-compliant items, given the weight of the superstructure above the parking and the weight of the parking concrete levels, uplift is not considered to be critical for the building and therefore these items do not pose a critical deficiency in the building rating.

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	1.629 and 0.826
For BSE-1E	0.897 and 0.517

19) Estimated Fundamental Period (seconds)
   (a) Longitudinal: 0.353
   (b) Transverse: 0.353

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

(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): 26" Concrete Shear Wall (N-S Direction) along Grid-D is discontinuous below upper parking level.
(g) 12" Concrete Shear Wall (N-S Direction) along Grid-C is discontinuous below upper parking level.
(h) Torsion: No deficiency noted
(i) Mass – Vertical Irregularity: No deficiency noted
(j) Cripple Walls: Not Applicable
(k) Wood Sills (bolting): Not Applicable
(l) Diaphragm Continuity: No deficiency noted
(m) Openings at Shear Walls (concrete or masonry): No deficiency noted
(n) Liquefaction: No
(o) Slope Failure: No
(p) Surface Fault Rupture: No
(q) Masonry or Concrete Wall Anchorage at Flexible Diaphragm: Not Applicable
(r) URM wall height to thickness ratio: Not Applicable
(s) URM Parapets or Cornices: Not Applicable
(t) URM Chimney: Not Applicable
(u) Heavy Partitions Braced by Ceilings: No deficiency noted
(v) Appendages: No deficiency noted

22) Brief Description of Anticipated Failure Mechanism
Failure of poorly confined gravity columns located below discontinuous shear walls

23) Seismic Retrofit Concept Sketches/Description (only required for buildings rated V or worse)
None recommded.

Building Report Appendices

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

B) Quick Check Calculations