

July 25, 2018

Mr. Matt Ceragioli UCLA Real Estate Senior Leasing Specialist 10920 Wilshire Boulevard, Suite 810 Los Angeles, California 90024-6502

Subject: 911 Broxton Avenue, Los Angeles, CA

Seismic Screening Report JLA Job no. 18128-05

Dear Mr. Ceragioli,

Per your request, we have performed a seismic screening of the existing building located at 911 Broxton Avenue in Los Angeles, California. Our services included a review of the available record drawings and a general evaluation of the existing structural systems of the building.

## **Building Description**

The building is rectangular shaped and consists of two basement levels (lower and upper level parking) below grade, first floor (lower level shops) approximately 4' below grade, second floor (upper level shops), third level, and roof above grade. The perimeter walls below grade consist of load bearing reinforced masonry and concrete and above grade consist of load bearing reinforced masonry and concrete with brick veneer or stucco finish and windows. See Figure 1 below.

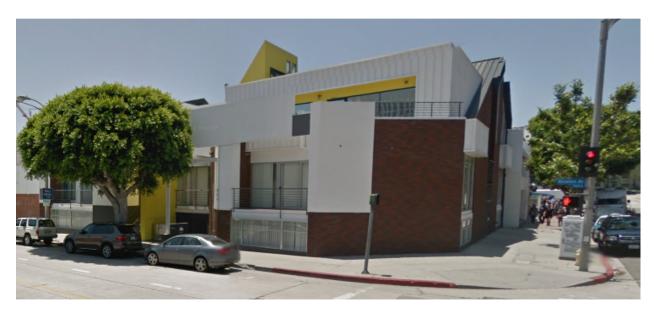


Figure 1 – Exterior View of 911 Broxton Avenue in Los Angeles, California



### **Building Structure**

The structural drawings available for review included 21 drawings (S1 to S20) prepared by Ed Workman, Structural Engineer, dated March 19, 1979 (some drawings revised January 22 and April 6, 1980), and are the basis of this report.

The building was designed in 1979 and constructed in 1980 with a structural design assumed to be based on the 1977 Los Angles Building Code (LABC). Some modifications made in 1980 to the structural design and drawings are assumed to be based on code requirements that superseded the 1977 LABC.

### Foundations and Lower Level Parking:

The lower level parking consists of a 5" thick reinforced concrete slab supported on grade. The foundations below the lower level parking slab consist of reinforced concrete spread footings at the interior reinforced concrete columns, reinforced concrete continuous footings at the perimeter masonry load bearing walls, and reinforced concrete mat foundations at the interior masonry load bearing walls.

### Upper Level Parking:

The upper level parking consists of a 9.5" thick two way reinforced concrete slab with 19.5" thick and 4' square capitals at interior columns. The concrete slab is supported by interior 16" x 30" reinforced columns and perimeter 8" and 12" thick reinforced masonry load bearing walls.

### Lower Level Shops:

The lower level shops consists of a 12" thick two way reinforced concrete slab with 22" thick and 4' square capitals at interior columns; reinforced concrete beams are provided at slab openings and slab steps. The concrete slab is supported by interior  $16" \times 30"$  reinforced columns and perimeter 8" and 12" thick reinforced masonry load bearing walls with some perimeter walls being 7.5" thick reinforced concrete.

### Upper Level Shops and Third Level:

The upper level shops and third level consist of 3/4" thick plywood supported by 2" x 12" wood joists, steel wide flange beams and steel 4" diameter pipe columns, which are supported by the lower level shop concrete slab, and interior and perimeter 8" and 12" thick reinforced masonry load bearing walls with some perimeter walls being 7.5" thick reinforced concrete.

#### Roof:

The roof consists of 1/2" thick plywood supported by 2"  $\times$  4", 10", and 12" wood joists, steel wide flange beams and steel 4" diameter pipe columns and interior and perimeter 8" and 12" thick reinforced masonry load bearing walls with some perimeter walls being 7.5" thick reinforced concrete.

### Lateral Load Resisting System:

The horizontal lateral system consists of the plywood diaphragms at the roof, third level, and upper level shops and the concrete slab diaphragms at the lower level shops and upper level parking and the vertical lateral system consists of the interior and perimeter 8" and 12" thick reinforced masonry load bearing walls with some perimeter 7.5" thick reinforced concrete load bearing walls.



### Seismic Evaluation Criteria

The structure was generally evaluated based on the University of California Seismic Safety Policy dated May 19, 2017. The seismic policy provides 7 seismic performance ratings: I thru VII. Please refer to attached Appendix A for info on Seismic Safety Policy & performance rating.

#### Seismic Evaluation

- The structure has a complete load path to transfer seismic forces to the foundations.
- The roof and floor diaphragms are continuous without major openings.
- Based on our review of the existing structural drawings and our conceptual evaluation of the lateral-load-resisting system, the lateral system is adequate for the size, configuration, and age of the building. A major seismic disturbance is likely to result in structural and non-structural damage that would represent low life hazards.

### Seismic Performance Rating

IV

#### Limitations

This limited seismic screening was based on our limited review of the plans. Services were performed by JLA in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions. The structural observations and recommendations represent our opinion and are not intended to preempt the responsibility of the original design consultants in any way. No other warranty, expressed or implied, is made.

If you have any questions, please do not hesitate to call us.

Yours truly,

John Labib & Associates

John Labib, S.E. President



### Appendix A

### **Expected Seismic Performance Levels**

This series of definitions was developed by the California State University, the University of California, the California Department of General Services, and the Administrative Office of the Courts from 1995 through 2009.

Table A.1. Determination of Expected Seismic Performance Level<sup>1</sup> Based on the Edition, California Code of Regulations, Part 10, California Building Code (CBC) (current edition)

Definitions based upon California Building Code (CBC) requirements for seismic evaluation of buildings using Risk Categories of CBC Table 1604A.5, depending on which applies, and performance criteria in CBC Table 317.5 <sup>2</sup>	Expected Seismic Performance Level <sup>1</sup>
A building evaluated as meeting or exceeding the requirements of CBC Part 10 Chapter 3 for Risk Category IV performance criteria with BSE-1N and BSE-2N hazard levels replacing BSE-R and BSE-C as given in Chapter 3.	I
A building evaluated as meeting or exceeding the requirements of CBC Part 10 Chapter 3 for Risk Category IV performance criteria.	П
A building evaluated as meeting or exceeding the requirements of CBC Part 10 Chapter 3 for Risk Category I-III performance criteria with BSE- 1N and BSE-2N hazard levels replacing BSE-R and BSE-C respectively as given in Chapter 3; alternatively, a building meeting CBC requirements for a new building.	III
A building evaluated as meeting or exceeding the requirements of CBC Part 10 Chapter 3 for Risk Category I-III performance criteria.	IV
A building evaluated as meeting or exceeding the requirements of CBC Part 10 Chapter 3 for Risk Category I-III performance criteria only if the BSE-R and BSE-C values are reduced to 2/3 of those specified for the site.	V
A building evaluated as not meeting the minimum requirements for Level V designation and not requiring a Level VII designation.	VI
A building evaluated as posing an immediate life-safety hazard to its occupants under gravity loads. The building should be evacuated and posted as dangerous until remedial actions are taken to assure the building can support CBC prescribed dead and live loads.	VII

Table A.2. Approximate Relationship Between UC's Historic Seismic Performance Ratings and Current Expected Seismic Performance Levels

Expected Seismic Performance Level <sup>1</sup>	UC's Historic Ratings⁵	Implied Risk to Life <sup>3</sup>	Implied Seismic Damageability <sup>4</sup>
I	Good	Negligible	0% to 10%
II	Good	Insignificant	0% to 15%
III	Good	Slight	5% to 20%
IV	Fair	Small	10% to 30%
V	Poor	Serious	20% to 50%
VI	Very Poor	Severe	40% to 100%
VII	Very Poor	Dangerous	100%

## University of California Policy Seismic Safety Policy

#### Notes:

- Expected seismic performance levels are indicated by Roman numerals I through VII. Assignments are to be made following a professional assessment of the building's expected seismic performance as measured by a CSE's experience or referenced technical standard and earthquake ground motions. Equivalent Arabic numerals, fractional values, or plus or minus values are not to be used. These assignments were prepared by a task force of state agency technical personnel, including the California State University, the University of California, the California Department of General Services, the Division of the State Architect, and the Administrative Office of the Courts. The levels apply to structural and non-structural elements of the building as contained in Chapter 3, CBC Part 10 requirements. These definitions replace those previously used by these agencies.
- 2. Chapter 3 of the California Building Code Part 10, current edition, regulates existing buildings. It uses and references the American Society of Civil Engineers Standard Seismic Rehabilitation of Existing Buildings, ASCE-41-13. All earthquake ground motion criteria are specific to the site of the evaluated building. The CBC definitions for earthquake ground motions to be assessed are paraphrased below for convenience:
- 3. BSE-2N, the 2,475-year return period earthquake ground motion, or 150% of the Maximum Considered Earthquake ground motion for the site.
  - BSE-C, the 975-year return period earthquake ground motion.
  - BSE-1N, two-thirds of the BSE-2N, nominally, the 475-year return period earthquake ground motion. BSE-R, the 225-year return period earthquake ground motion.
  - *Risk Category* is defined in the CBC Table 1604A.5. The risk category sets the level of required seismic building performance under the CBC. Risk Category IV includes acute care hospitals, fire, rescue and police stations and emergency vehicle garages, designated emergency shelters, emergency operations centers, and structures containing highly toxic materials where the quantities exceed the maximum allowed quantities, among others. Risk categories I-III includes all other building uses that include most state-owned buildings.
- 4. Implied Risk to Life is a subjective measure of the threat of a life threatening injury or death that is expected to occur in an average building in each rank following the indicated technical requirements. The terms negligible through dangerous are not specifically defined, but are linguistic indications of the relative degree of hazard posed to an individual occupant.
- 5. Implied Damageability is the level of damage expected to the average building in each rank following the indicated technical requirements when a BSE-11E level earthquake occurs. The damage includes both the structural and non-structural systems, but does not consider furnishing and tenant contents.
- 6. Historically the University of California has used the terms good, fair, poor and very poor to distinguish the relative seismic performance of buildings. The concordance of values in the table above is approximate. The former rating procedures did not provide specific performance levels as is done herein, but were sentence fragments for qualitative performance and are recalled below for historical purposes only:

A *Good* seismic performance rating would apply to buildings and other structures whose performance during a major seismic disturbance is anticipated to result in some structural and/or nonstructural damage and/or falling hazards that would not significantly jeopardize life. Buildings and other structures with a Good rating would have a level of seismic resistance such that funds need not be spent to improve their seismic resistance to gain greater life safety, and would represent an acceptable level of earthquake safety.

A *Fair* seismic performance rating would apply to buildings and other structures whose performance during a major seismic disturbance is anticipated to result in structural and nonstructural damage and/or falling hazards that would represent low life hazards. Buildings and other structures with a Fair seismic performance rating would be given a low priority for expenditures to improve their seismic resistance and/or to reduce falling hazards so that the building could be reclassified Good.

A *Poor* seismic performance rating would apply to buildings and other structures whose performance during a major seismic disturbance is anticipated to result in significant structural and nonstructural damage and/or falling hazards that would represent appreciable life hazards. Such buildings or structures either would be given a high priority for expenditures to improve their seismic resistance and/or to reduce falling hazards so that the building could be reclassified as Good, or would be considered for other abatement programs, such as reduction of occupancy.

# University of California Policy Seismic Safety Policy

A *Very Poor* seismic performance rating would apply to buildings and other structures whose performance during a major seismic disturbance is anticipated to result in extensive structural and nonstructural damage, potential structural collapse, and/or falling hazards that would represent high life hazards. Such buildings or structures either would be given the highest priority for expenditures to improve their seismic resistance and/or to reduce falling hazards so that the building could be reclassified Good, or would be considered for other abatement programs such as reduction of occupancy.