

March 19, 2018

Mr. Gregory Park  
Senior Leasing Specialist  
UCLA Real Estate  
10920 Wilshire Boulevard, Suite 810  
Los Angeles, CA 90024

**Re: *University of California Seismic Rating for 4343 Lankershim Boulevard***

Dear Gregory:

Nabih Youssef Associates (NYA) have performed an Independent Review of the 3-story office building located at 4343 Lankershim Boulevard in North Hollywood. The review consisted of a site visit to observe the existing condition of the exposed structural elements, identification of potential falling hazards that pose a significant life or safety risk to occupants, a review of structural drawings and an ASCE 41-13 Tier 1 and deficiency only Tier 2 evaluation.

**Description:**

The building is irregular-shaped in-plan with three stories above grade and two subterranean levels of parking. The building was completed in 1994 and likely designed to the 1988 edition of the Uniform Building Code.

The roof and typical floors are constructed of 1½" or 3" metal deck with ¾" lightweight concrete fill spanning to wide flange steel beams and girders. The steel beams and girders are supported by wide flange steel columns that are spliced at every other floor and are continuous to the ground floor. Interior steel columns are directly supported by reinforced concrete columns below. Perimeter steel columns are supported by reinforced concrete ledger beams and retaining walls.

The ground floor and elevated subterranean parking level are constructed of one-way reinforced concrete slabs spanning to reinforced concrete beams that are supported by reinforced concrete columns at the interior and reinforced concrete retaining walls along the perimeter. The concrete columns and walls are continuous to the foundation. The foundation system consists of shallow isolated footings supporting interior columns and continuous strip footings supporting retaining walls. A 4" thick reinforced concrete slab on grade forms the P2 level.

The lateral-force-resisting system consists of the metal deck and concrete fill roof and floors acting as structural diaphragms to transfer seismic inertial forces to the distributed welded steel moment frames, reinforced CMU and concrete shear walls. The typical moment frame connection consists of field-welded full-penetration joints of the frame beam flanges to the columns flanges. This connection detail is the typical "pre-Northridge" type connection that was standard practice at the time of construction.

The building was subjected to strong ground motion during the 1994 Northridge Earthquake. Recorded ground motion near the site indicates peak ground acceleration greater than 0.2g.

**Observation:**

A site visit was performed by Gregory Truscott of NYA on February 28, 2018, to observe the condition and characteristics of the building. Observations were limited to visible areas of the structure. The building structure appeared to be in general conformance with the original structural drawings, no

significant structural alteration was observed. The building generally appeared to be in good condition and there were no obvious signs of structural distress.

Mechanical and electrical equipment were observed to be generally anchored and piping systems generally braced. The curtain wall system of the building consists of stucco finish and an aluminum mullion system with laminated glass. No falling hazards were observed on the exterior of the building.

### **Evaluation:**

The building is located on a flat site and is not susceptible to landslide. The site is not located within an Alquist-Priolo Earthquake fault zone – a geologic zone where surface rupture may occur. The site is located in an area recognized by the State of California where historic occurrence of liquefaction, or local geological, geotechnical and groundwater conditions indicate a potential for permanent ground displacement. However, USGS regional liquefaction hazard maps indicate that the site is located in a region of low susceptibility to liquefaction.

An ASCE 41-13 Tier 1 and deficiency only Tier 2 assessment was performed assuming a site soil classification D, and design spectral acceleration at short period and one second period for BSE-1E, 1.028g and 0.559g, respectively.

The building has the following noncompliant characteristics:

- **Adjacent Building** – Per architectural drawings, there is a one inch separation from the single-story masonry building to the south. The roof of the adjacent building does not appear to align with the 2<sup>nd</sup> floor. There is a 10½" thick reinforced concrete wall along the interface with the adjacent building at the first floor. The wall appears to have adequate strength to resist pounding from the adjacent building.
- **Vertical Irregularities** – 3<sup>rd</sup> floor moment frame column is discontinuous. This condition was considered in the LDP analysis.
- **Geometry** – Perimeter moment frames are set back at 3<sup>rd</sup> floor. This condition was considered in the LDP analysis.
- **Torsion** – Reinforced CMU and concrete wall along grid line E are stiffer than the steel moment frames resulting in torsional response. Effect was considered in the LDP analysis.
- **Moment Resisting Connections** – Moment connections do not develop the strength of adjoining members. This is common for pre-Northridge connections.
- **Panel Zones** – Panel zones do not have the shear capacity to develop 0.8 times the sum of the flexural strengths of the girders framing in at the face of the column. Results of LDP analysis indicate panel zones are adequate.
- **Strong Column – Weak Beam** – The percentage of strong column-weak beam joints in each story of each line of moment frames is less than 50%. This is common for buildings of this vintage, as strong column-weak beam joints was not a design requirement.
- **Compact Members** – Not all frame members satisfy desirable compact section requirements. This is common for buildings of this vintage, as compactness was not a design requirement.
- **Reinforcing Steel** – The ratio of reinforcing steel area to gross concrete area is less than prescribed limits.

The building has a complete load path to transfer seismic forces to the foundations.

**Conclusion:**

Based on observations made during our site visit and the results of the ASCE 41-13 Tier 1 and deficiency only Tier 2 assessment, the expected earthquake performance of the building corresponds to the University of California seismic rating of "IV" ("Fair").

Sincerely,

**NABIH YOUSSEF & ASSOCIATES**



Nabih Youssef, S.E.  
Principal

Enclosure

**References:**

Structural drawings for Lankershim Office Building, Michael M Salehi, Inc., Consulting Structural Engineers (90-137).

Seismic Evaluation and Retrofit of Existing Buildings, ASCE/SEI 41-13, American Society of Civil Engineers, 2014.

State of California Earthquake Zone of Required Investigation Burbank Quadrangle, California Geological Survey.

University of California Seismic Safety Policy, May 19, 2017.



Photo 1 – Northeast Elevation



Photo 2 – East Elevation



Photo 3 – North Elevation



Photo 4 – Southwest Elevation



Photo 5 – Adjacent Building

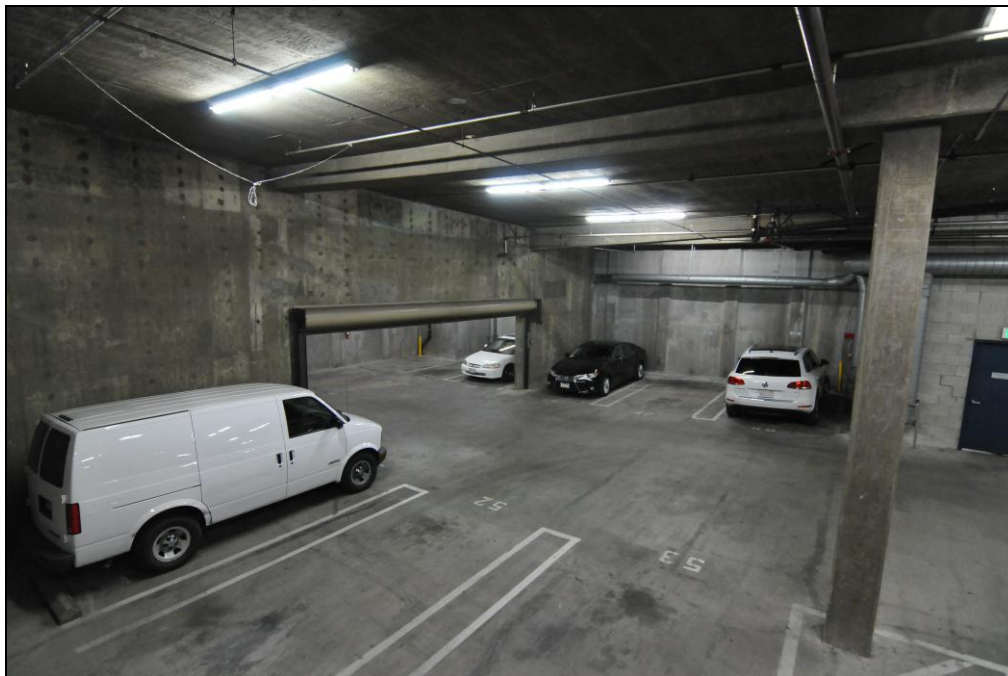


Photo 6 – Concrete Framing and Walls



Photo 7 – Typical Steel Framing and Concrete Shear Wall



Photo 8 – HVAC Units on Roof