

October 22, 2012

Ms. Joanne Williams Senior Leasing Specialist UCLA Real Estate 10920 Wilshire Boulevard, Suite 810 Los Angeles, CA 90024

# Re: University of California Seismic Rating for 10924 Lindbrook Drive, Los Angeles

Dear Joanne:

Nabih Youssef & Associates (NYA) have performed an Independent Review of the 2-story office building with 2-levels of subterranean parking located at 10924 Lindbrook Drive in Los Angeles. The review consisted of a site visit to observe the existing condition of the exposed structural elements, review of structural drawings, identification of potential falling hazards that pose a significant life or safety risk to occupants, and a seismic risk assessment.

### Description:

The building is a 2-story pre-cast concrete office building that is irregular shaped in-plan with re-entrant corners. The building is reported to have been constructed in the late 1970's and likely was designed to the 1976 edition of the Uniform Building Code.

The roof is constructed of  $1\frac{1}{2}$ " metal deck with  $2\frac{1}{4}$ " zonolite concrete fill spanning to wide flange steel beams. The beams are supported by 5" diameter steel pipe columns and CMU walls. The typical floors are constructed of 5" or 8" thick pre-cast concrete planks with  $3\frac{1}{2}$ " concrete topping slabs. The planks span to 24"x24" pre-cast concrete beams that are supported by pre-cast concrete columns. The steel pipe columns terminate at the 2<sup>nd</sup> floor and are supported directly below by the pre-cast concrete columns that are continuous to the foundation.

The foundation system consists of isolated concrete spread footings supporting the interior columns and driven concrete piles supporting the perimeter concrete walls. A concrete slab-on-grade forms the lowest basement level floor.

The lateral-force-resisting system appears to consist of the metal deck roof and pre-cast concrete plank floors acting as structural diaphragms to transfer seismic inertial forces to reinforced CMU and concrete walls.

## Observation:

A site visit was performed by Jason Braun of NYA on October 22, 2012, to observe the condition and characteristics of the building. Observations were limited to visible areas of the structure. The building appeared to be in good condition and there were no obvious signs of distress.

The exterior of the building consists of brick veneer and storefront window system. There are some signage ornamentation and architectural appendages (awnings) that appear to be adequately connected to the structure. Thus, no significant potential falling hazards were observed.

#### **Evaluation:**

The site is not subject to the jurisdiction of the Alquist-Priolo Special Studies Zone Act. The building is founded on older alluvium that consists of medium dense to very dense sand, clay and silt that has a low susceptibility to liquefaction. Thus, the potential for earthquake induced site failure is low.

The metal deck roof connected to the CMU walls and dowels are provided to connect the concrete topping slabs to the reinforced CMU and concrete walls. Thus, the building appears to have a complete load path to transfer seismic forces to the foundations. The roof and floor diaphragms appear to have adequate strength



with no major openings. In addition, there appears to be no significant strength or stiffness irregularities in the vertical elements of the lateral system.

#### Seismic Risk Assessment:

Based on visual observations, a seismic risk assessment considering building stability, site stability, seismic ground motion hazard and building damageability was performed. The on-line seismic risk assessment tool *SeismiCat,* developed by ImageCat, Inc., for screening of buildings for seismic risk, was used. The assessment was performed to the Level 1 requirements of ASTM E-2026.

The Scenario Expected Loss (SEL) for ground shaking hazards having 10% probability of exceedance within a 50-year exposure period (BSE-1) was calculated. The SEL corresponds to the Implied Seismic Damageability, as defined by the 2011 UC Seismic Safety Policy. The SEL for the building is 15%. The report generated by SeismiCat is attached.

## Conclusion:

Based on observations made during our site visit, a review of the structural drawings, and the results of the seismic risk assessment, the expected earthquake performance of the building corresponds to the University of California seismic rating of "IV" ("Fair").

### **References:**

Architectural drawings for Villa Westwood, Charles Kober Associates, May 31, 1978.

Structural drawing for Villa Westwood, Ruthroff Englekirk, May 31, 1978.

Seismic Hazard Zone Report for the Beverly Hills 7.5-Minute Quadrangle, Los Angeles County, CA, prepared by State of California, Department of Conservation Division of Mines and Geology, Report No. 035, 1998.

State of California Seismic Hazard Zone, Beverly Hills Quadrangle, March 25, 1999.

University of California Seismic Safety Policy, August 25, 2011.

# Sincerely, NABIH YOUSSEF & ASSOCIATES

Jabih Clouese

Nabih Youssef, S.E. Principal

Enclosure

cc: N. Youssef; O. Hata; File 12366.00