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January 15, 2019

Our Job Mo. 1827-001

Zacks Freedman & Patterson
235 Montgomery Street, Suite 400
San Francisco, California 94104

Attention: Sarah Hoffman, ESQ.

Ladies and Gentlemen:

Geotechnical Consultation
Review of Geotechnical Report and Design Drawings
Proposed Residential Addition
11 Gladys Street
San Francisco, California

This letter presents the results of the geotechnical consultation provided in connection with the proposed addition to the existing residence at 11 Gladys Street in the Bernal Heights neighborhood of San Francisco, California

The site, also known as Assessor's Block 5710, Lot 027, is located on the southeast side of Gladys Street, one lot south of the intersection of Gladys Street and Santa Marina Street. The site measures, in plan dimensions, 50 feet in width along Gladys Street by 25 feet in length.

We were provided with a geotechnical report entitled, "Geotechnical Investigation Report, 11 Gladys Street, San Francisco, California," prepared by Divis Consulting, Inc., and dated September 18, 2015, (DCI Project No. 15-180505), and a set of development plans of 7 sheets, entitled, "Residential Addition, 11 Gladys Street, San Francisco, CA, June 2018," prepared by Architect Mason Kirby Inc., dated October 19, 2016 and last revised November 28, 2017.

We were also provided with a letter entitled, "Appeal of CEQA Categorical Exemption Determination: File No. 181200, 11 Gladys Street," prepared by Patrick Buscovich, S.E. and dated January 4, 2019.

Present plans call for construction of an addition of about 669 square foot to the existing building, by adding a level on top of the garage and the first floor.

PURPOSE AND SCOPE OF SERVICES

The purpose of our services was to provide geotechnical consultation to you, your client, and other architect and engineering consultants, where appropriate, in the development of the residential addition. The scope of our services included a site visit, to the neighboring properties, 48 Santa Marina Street and 19 Gladys Street on January 10, 2019, and review of the three documents cited above.

In addition, we have reviewed the geotechnical investigations on the seismic retrofit of the College Hill Reservoir, on top of the hill of these properties at Gladys Street and Santa Marina Street. The investigations were performed circa 2000 under my direction and supervision.

SITE CONDITIONS

SURFACE CONDITIONS

The site of 11 Gladys Street is presently improved with a building, consisting of a garage and storage at about street level and the first floor over the garage. The building was reportedly built in 1941.

The site is located at the bottom of a steep slope. There is presently a retaining wall of up to about 7 feet to 10 feet high, situated along the southeast (rear) property line. It is believed that the subject retaining wall is known as "gravity" wall and unreinforced. Divis Consulting Inc. observed that the retaining walls were repaired and capped with concrete at some point in the past.

It appears that the site grade between 11 Gladys Street and 48 Santa Marina Street is greater than 7 to 10 feet. That is, the grade at 48 Santa Marina is much higher than the top of the retaining wall at 11 Gladys Street.

SUBSRFACE CONDITIONS

Based on the test pits examined by Divis Consulting Inc. and information from the borings and cone penetration tests performed for the 2000 geotechnical investigations, bedrock of sandstone and shale was encountered at shallow depth, on the order of 2 feet, within the site. However, we anticipate fill and colluvium overlying the bedrock would be encountered behind the "gravity" retaining wall along the southeast property line.

DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

On the basis of our site visit, and review of the September 18, 2015 report prepared by Divis Consulting Inc., it is our opinion that the subject report has been prepared in accordance with the standard of care as required by the geotechnical engineering profession.

However, it appears that the Divis report was prepared on the assumption of new construction, rather than adding another level over the existing structure. This is a significant difference, because the geotechnical recommendations for a

remodel of an existing building should take into account the condition of the existing foundations. The Divis geotechnical report does not accurately reflect the site conditions at 11 Gladys Street. For example, it does not address the condition or integrity of the existing "gravity" retaining wall.

For the scheme, as shown in the plan prepared by Architect Mason Kirby Inc., November 28, 2017 version, that has been submitted to the Planning Commission for CEQA Categorical Exemption Determination, it is our opinion that the design and construction issues associated with the residential addition by adding another level to the existing structure have not been adequately addressed.

More specifically, we recommend as a minimum the following:

- Supplementary recommendations should be provided by Divis Consulting Inc. with respect to foundation support, site preparation and grading including excavation and temporary support.
- The strengthening and adequacy of the existing structure to accommodate the additional loading should be reviewed and designed.
- The integrity of the "gravity" retaining wall along the southeast property line should be investigated. Appropriate remedial measures may be required.
- Recommendations for temporary support for the "gravity" retaining wall to accommodate any excavation in front of the wall.
- A topographic and boundary survey should be prepared for 11 Gladys Street and the neighboring properties - 19 Gladys Street and 48 Santa Marina Street.

If these steps are not taken before the Project commences, there is a risk that the "gravity" wall will fail or collapse. If the wall fails, this would destabilize the hillside above 11 Gladys Street, creating catastrophic impacts, including mud flows and large slips that would damage or destroy the improvements at 11 Gladys Street and neighboring properties. Therefore, every effort should be employed to safeguard the integrity of the gravity wall, and to mitigate these significant impacts.

In summary, it is our opinion that the November 28, 2017 plans prepared by Architect Mason Kirby Inc., do not reflect the complexity of the development and potential environmental impact to the immediate neighborhood.

We are prepared to continue providing consultation, if requested.

CLOSURE

Our services have been performed with the usual thoroughness and competence of the engineering profession. No other warranty or representation, whether expressed or implied, is included or intended in our proposal, contract or report.

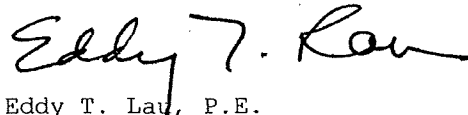
If you have any questions or require additional information, please contact us.

January 15, 2019

QUALIFICATIONS

I am registered in the State of California to practice Civil Engineering and Geotechnical Engineering. I have over 50 years of experience in providing geotechnical engineering. My practice through my professional career has been primarily in San Francisco; however, in my younger days, I was assigned to other states as well as to foreign countries, such as Indonesia, Iran, and Singapore.

Yours very truly,

A handwritten signature in black ink that reads "Eddy T. Lau". The signature is written in a cursive style with a large, stylized "E" and "L".

Eddy T. Lau, P.E.
Reg. Civil Engineer 019897
Reg. Geotechnical Engineer 506
Expiration 09/30/2019