GEOLABS, INC.
Geotechnical Engineering and Drilling Services

June 21, 2012
W.O. 3348-20

Mr. Wayne Wada
Esaki Surveying and Mapping, Inc.
1610 Haleukana Street
Lihue, HI 96766

Subject: Geotechnical Engineering Evaluation
Pi`ilani Mai Ke Kai Subdivision, Phase 2
Anahola, Kauai, Hawaii

References: 1) Report by Geolabs, Inc. dated January 25, 1995
entitled "Geotechnical Engineering Exploration,
Anahola Residence Lots – Unit 6,
Anahola, Kauai, Hawaii"

2) Grading Plans by Esaki Surveying and Mapping, Inc.
dated 3/27/12, for State of Hawaii Department of Hawaiian Home Lands,
Pi`ilani Mai Ke Kai Subdivision, Phase II,
Anahola, Kauai, Hawaii,
TMK: (4) 4-8-16: 03 & (4) 4-8-22: 89

Dear **Mr. Wada:**

In accordance with our proposal dated February 10, 2012 we have evaluated the proposed grading in conjunction with our previous subsurface exploration findings. Based on our review, it is our opinion that the proposed grading development is feasible from a geotechnical engineering standpoint.

Project Considerations

The Pi`ilani Mai Ke Kai Subdivision project site is in the Anahola area of Kawaihau in the eastern coast of the Island of Kauai, Hawaii. The proposed development generally consists of subdividing the site into approximately 193 single-family residential lots under three phases of construction. The mass grading and infrastructure installation work for the Phase I portion was completed in 2008. Phase 1 of the project included the development of 80 lots with the installation of new utilities including water and drain lines, as well as construction of new roadways including the Kuhio Highway Improvements. It is now desired to proceed with the Phase 2 site development and house construction of the

project. The Phase 2 portion of the development is located in the south-central portion of the site and consists of 51 lots.

The grading plans indicate that cuts and fills up to about 15 feet are planned to meet the finished lot grades. Basically, the northern portion will be cut to fill the southern portion. The deepest fills will be over the existing drainageway that crosses the site in an east-west direction.

Subsurface Conditions

The borings from our previous exploration generally encountered stiff residual soils over saprolite (completely weathered basalt) to about 20 feet, the maximum depth drilled. The natural moisture content of the soils were close to the optimum moisture but increased with depth.

Recommendations

The recommendations presented in our 1995 report are still valid and should be followed.

We anticipate that the bottom of the drainageway that extends through the southern portion of the site will be underlain with soft sediments. After clearing and grubbing, the soft sediments should be removed down to stiff soil prior to filling. The soft sediments removed may be re-used as fill provided it is moisture conditioned and organic and oversized material is removed.

The subsurface exploration disclosed that the soils within about 10 feet from existing grade may be close to the optimum moisture content. However, the deeper soils may have natural moisture contents above the optimum and require drying to meet the compaction requirements.

Closure

We appreciate the opportunity to be of continued service to you on this project. If you have questions or need additional information, please contact our office.

Respectfully submitted,

GEOLABS, INC.

By _____
Clayton S. Mimura, P.E.
President

CLAYTON S. MIMURA
LICENSED PROFESSIONAL ENGINEER
No. 4176-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION.

_____ 4-30-14
SIGNATURE EXPIRATION DATE OF THE LICENSE

CSM:cj

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