



# GEOLABS, INC.

*Geotechnical Engineering and Drilling Services*

February 23, 2011  
W.O. 3917-110

**Mr. Michael Yamasaki, P.E.**  
**City & County of Honolulu**  
**Department of Design & Construction**  
650 South King Street, 15<sup>th</sup> Floor  
Honolulu, HI 96813

**PROGRESS REPORT NO. 21**  
**PHASE III – ADDITIONAL INSTRUMENT MONITORING**  
**KUAHEA STREET AREA MOVEMENT**  
**PROJECT NO. 97504**  
**PALOLO, OAHU, HAWAII**

Dear **Mr. Yamasaki**:

Our semi-annual Progress Report No. 21 summarizes our work efforts and the results of the additional field instrumentation monitoring conducted for the Kuahea Street Area Movement project in Palolo Valley on the Island of Oahu, Hawaii. The approximate project location is shown on the Project Location Map, Plate 1.

Our work was performed in general accordance with our revised fee proposal dated January 28, 2010 and Amendment No. 10 for Engineering Services for the Kuahea Street Area Movement Project, Contract No. F-60578, CIP No. 97504.

This progress report provides summary information resulting from our monitoring of earth movements and subsurface water levels (Phase III - Instrument Monitoring). Our report summarizes the field data and observations that were collected during three scheduled monitoring visits performed over a six-month monitoring period. This report is our first semi-annual progress report covering the twelve-month instrument monitoring period, which officially commenced August 1, 2010 and expires July 31, 2011. The three regular scheduled instrumentation-monitoring visits were conducted as follows:

- Monitoring Visit 1: September 28, 29, and 30, 2010
- Monitoring Visit 2: November 17, 18 and 19, 2010
- Monitoring Visit 3: January 18, 19, and 20, 2011