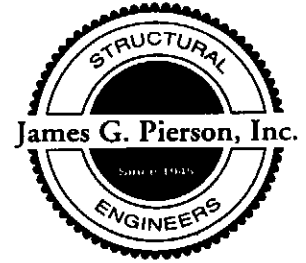


FACSIMILE TRANSMITTAL



James G. Pierson, Inc.

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To **Craig LaVielle**
Company **LaVielle Geotech**
Fax No. **503-282-7671**
Number of Pages Including this Sheet **1**

From **Peder Golberg, P.E., S.E.**
Project Title **Muller on Heather Lane**
Project no.
Date **February 1, 2006**

MESSAGE:

Craig,

For the house addition with car deck and retaining wall located at 3425 SW Heather Lane in Portland (Mueller Residence), you called today with new soil's information.

They have over-excavated the footings for both the retaining wall and the pier footings further downhill. The uphill side has also now been protected by driven piles to keep the street loads from surcharging the excavation. Steve did the original design using hand calculations with assumed friction between the concrete and soil of 0.35 and also allowable bearing pressure of 1500 psf. Per your phone call, the allowable bearing pressure with engineered backfill (crushed gravel) can be 2000 psf. The friction factor can be 0.40 (or slightly greater).

I have had the chance to put this design onto the computer program we have for retaining walls. The original design is shown as adequate with this program. I have discussed this design and over-excavation with the general contractor today. It appears that they over-excavated about 5 ft! with the bottom of the footing excavation at 13'-11" below finished surface. They will be backfilling using the engineered fill per your direction.

I have re-checked the design of the key for sliding using 0.4 for a friction factor. With this value, the key can be 8" deep and still maintain a 1.5 factor of safety. They say they can dig the key in the gravel at 8" (but not 18" deep without major sloughing).

If you have a questions, please feel free to call and discuss.

COPY TO: file, Hawkins, James Frank

SIGNED:

A handwritten signature in black ink that reads 'Peder Golberg'.

If enclosures are not as noted, kindly notify us at once.