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CASCADE GEOTECHNICAL INC.

12911 N.E. 126TH PLACE
KIRKLAND, WASHINGTON 98034

(206) 821-5080
FAX: (206) 820-6953

May 14, 1991
Job No. 9105-03G



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JUN 4 1991

DEPARTMENT OF
COMMUNITY DEVELOPMENT

Seaspect Inc.
2737 77th Avenue Southeast #400
Mercer Island, Washington 98040

Attention: Boon Woo

Reference: Seaspect Residence
7709 West Mercer Way
Mercer Island, Washington

Dear Mr. Woo:

As requested, we visited the above site to observe an existing steep slope face of exposed soil to determine if additional exploration would be necessary. The following letter discusses our preliminary findings and provides preliminary conclusions and preliminary recommendations.

We understand from our recent conversations with Ahmed Jaddi of Millegan and Jaddi, that you would like to face the existing cut with a rockery and cover the existing slope above the cut with reinforced matting.

SITE OBSERVATIONS

The site is located at 7709 West Mercer Way on Mercer Island, Washington. The area of our field observations included a twelve (12) to fourteen and one-half (14 1/2) foot high near vertical, exposed cut face that was faced by a ten (10) to fifteen (15) foot high unreinforced, wood wall. The wood wall consisted of treated timbers and was located approximately twenty-five (25) feet to the east of the existing residence.

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At the time of our visit, a section of the wood wall had collapsed onto the existing concrete driveway. It appeared that debris sloughed from the 1(H):1(V) slope above the cut face and fallen between the steep cut face and the wall, causing the existing wood wall to fail.

We noted that the bottom two (2) to four (4) feet of the standing wood wall was bowing outward away from the cut face. This appeared to be caused by debris sloughed from above that was collecting behind the existing wood wall. The wood wall was located adjacent to the driveway, leaving a two (2) to four (4) foot gap between the wood wall and the cut face. We noted a driveway for the adjacent residence to the south that came within five (5) feet from the cut face at one point.

The soils we observed in the 1(H):1(V) slope and the near vertical cut face consisted of two (2) feet of loose, wet silty sand with some gravel overlying four (4) feet of medium dense, fine-grained sand with minor gravel. At six (6) feet below the top of the 1(H):1(V) slope, we noted three (3) feet of dense to very dense, interbedded silt and sand layers. Below the silt and sand layers, we encountered very dense silty sand with some gravel to the base of the cut.

We observed slight ground water seepage from the contact between the sand and the interbedded silt and sand layers at about six (6) feet below the top of the slope. The ground water appeared to have collected within the sloughed debris.

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CONCLUSIONS

It is our conclusion that the cut face itself is relatively stable at this time. The 1(H):1(V) slope above, however, does not appear to be stable as evidenced by the recent and past sloughing of debris. We also conclude that the 1(H):1(V) slope will continue to slough onto your property if not regraded or retained. We are also concerned with the possible movement of the neighboring driveway to the south.

RECOMMENDATIONS

We recommend the use of a retaining structure to support the cut face and slope above. We feel a retaining structure is necessary due to the close proximity of the neighboring driveway and the evidence of continuous sloughing of the slope. We recommend that we be engaged to perform additional site work which includes a subsurface investigation to provide more detailed and specific recommendations. We would be happy to provide a proposal for the additional work at your request.

It is our understanding that you would like to construct an eight (8) foot high rockery along the cut face and to cover the existing 1(H):1(V) slope with reinforced matting. This would be a temporary solution and you should understand that the existing upper slope would continue to slough.

If a rockery is constructed on the site, it should meet Mercer Island requirements and not exceed eight (8) feet in total height. We recommend that the rockery be constructed by an experienced contractor. We also recommend regrading the existing 1(H):1(V) slope above the cut face to a 2(H):1(V) slope. It is our understanding that the slope above the cut face is part of the

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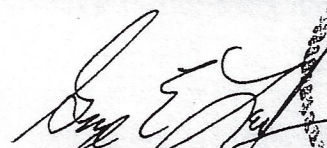
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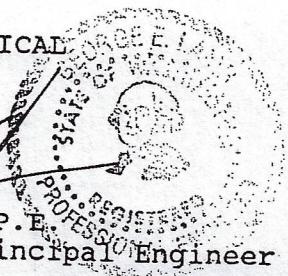
neighboring property to the east.

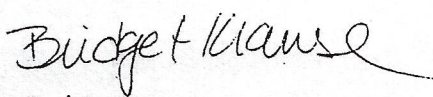
Thank you for this opportunity to work with you. Should you have any questions, please feel free to contact us at any time.

Sincerely,

CASCADE GEOTECHNICAL


George E. Lamb, P.E.
President and Principal Engineer




Bridget Krause
Engineering Geologist

BK:pg