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September 14, 2006

Project No. 0522-SZ50-J16

Mr. Gerald Shanahan  
151 Thunderbird Drive  
Aptos, CA, 95003

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**MAR 06 2007**

**CITY OF SCOTTS VALLEY**

Subject: Groundwater Recharge Issues  
Pinnacle View Residential Project  
APN 21-27-04 and APN 21-281-01, 02, 05, 06  
Scotts Valley, California

Dear Mr. Shanahan,

As you know, Pacific Crest Engineering Inc. (PCEI) completed a Geotechnical Investigation for the project site dated May 9, 2005. This report included the drilling of 9 test borings, ranging in depth from 5.5 to 35.5 feet. As noted within our test boring logs, bedrock was encountered within Boring No. 1 (15 feet), Boring No. 2 (18 feet), Boring No. 3 (19 feet), Boring No. 4 (29 feet), Boring No. 5 (33 feet), Boring No. 6 (11 feet), Boring No. 7 (5.5 feet) and Boring No. 9 (19 feet). Therefore, 8 of the 9 test borings completed at the project site confirm the presence of bedrock materials generally under the entire site profile, at relatively shallow depths. This bedrock material appears to be very dense (and therefore very impermeable), based on the recorded blow counts from the field sampling program (sampler blow counts exceeding 50 blows per foot).

Perched groundwater was encountered within four of the test borings at depths ranging from 2 to 20 feet, with a spring observed along the eastern edge of the parcel. It should be noted that groundwater would have likely been observed within the remaining test borings if they were left open for any significant period of time (which they were not). This perched groundwater appears to reside upon the much denser bedrock material present beneath the site.

Given the relatively shallow nature of the bedrock material which underlies the entire project site, and the perched groundwater encountered within many of the test borings (and possibly all of the test borings), it appears the existing level of groundwater recharge at the project site is very limited. Downward migration of water is impacted not only by the dense nature of the bedrock strata, but also by the presence of perched groundwater on top of the bedrock which appears to underlie the majority of the project site.

From our observations it appears that the majority of groundwater recharge occurs in the swale bordering the easterly side of the City's corporation yard and in the riparian areas adjacent to the

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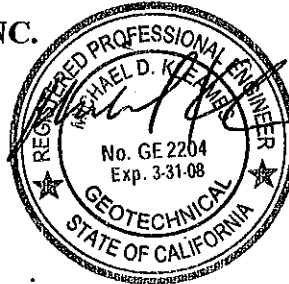
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Camp Evers Tributary to Carbonera Creek. It is our understanding that these areas are beyond the limits of the proposed project.

Should you have any questions, we can be reached at (831) 722-9446.

Sincerely,

**PACIFIC CREST ENGINEERING INC.**



Michael D. Kleames, GE  
Vice-President/Principal Geotechnical Engineer  
GE 2204  
Expires 3/31/08

Copies: 1 to Client  
3 to Mr. Gene Scothorn, Civil Consultants Group

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