

Project No. **7125.500.102**

August 31, 2010

Mr. Bill Scott Silver Springs LLC 2999 Oak Road, Suite 400 Walnut Creek, Ca. 94597

Subjects:

Green Valley Road/Deer Valley Road Turn Lanes and

Spring Valley Parkway - Onsite El Dorado County, California

SUPPLEMENTAL SLOPE DESIGN REVIEW

Reference:

ENGEO; Geotechnical Report for Silver Springs Residential Development and

Offsite Improvements, El Dorado County, California, Project No. 7125.5.001.01;

February 1, 2006.

Dear Mr. Scott:

With your authorization, we performed a design review of the 1:1 (horizontal:vertical) cut slope proposed for the Green Valley Road/Deer Valley Road Turn Lane Project, and the fill slope detail for Spring Valley Parkway. We were provided with the proposed project plans by TLA Engineering and Planning.

GREEN VALLEY ROAD/DEER VALLEY ROAD TURN LANES

According to our review of the TLA plan sheets 5, 6, 14, and 15, the east side of the proposed Green Valley Road project will require the existing approximately 1½:1 slope to be cut back to 1:1between approximately Stations 246+75 and 247+75, with a maximum height of approximately 8 feet. The slope will return to a 1½:1 slope over a distance of 25 feet on each side. A 3-foot wide setback from the toe of the slope to the edge of pavement is shown on the plans.

Our Certified Engineering Geologist visited the site on August 26, 2010 to observe the exposed slope conditions. The rock conditions observed at the surface of the existing slope are generally thinly bedded/foliated metavolcanics that display a highly variable range of weathering. Some bands of rock exposed are relatively strong and moderately weathered, whereas other portions of the rock are completely weathered and can be crumbled by hand. The bedding/foliation dips steeply into the slope in a favorable geometry to lessen the potential for block failure or global instability of the slope. Based on these observations, we confirm the conclusions of Section 3.9 in the above referenced geotechnical report as applicable to the proposed 1:1 slope between approximately Stations 246+75 and 247+75. Weathering and raveling of the new slope face will likely occur more frequently than experienced with the original, less steep slope. This may result in greater accumulation of material at the toe of the slope over time, which will require occasional maintenance. It is our opinion that the proposed 3-foot wide set back distance from the toe of the slope to the edge of pavement is minimal; however, we understand a minimum 6 foot wide paved shoulder will also be constructed along roadway. The shoulder will provide additional buffer from the toe of slope.

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We should be retained to observe the new cut slope during construction to observe the newly exposed material and verify there are no global stability concerns.

SPRING VALLEY PARKWAY - ONSITE

For contractor bidding purposes, we understand the El Dorado County plan reviewer has commented to include keying and benching depths on the "Placement of Fill on Natural Slope Detail" plan sheet 17 for the Spring Valley Parkway – Onsite project. The 2-foot minimum key and bench depths provided in Section 4.8.2 of the referenced geotechnical report are appropriate to use on the detail for bidding purposes. Deeper keys or bench widths may be required depending on the actual soil conditions and the existing slope geometry encountered during grading. We recommend the detail reflect the specific language of the recommendations provided in Section 4.8.2. We recommend we be allowed to review the detail after revisions are completed.

If you have any questions or comments regarding this letter, please call and we will be glad to discuss them with you.

Sincerely,

ENGEO Incorporated

Kyle Bickler, PE

Mark M. Gilbert, GE

Cc: Mr. Ed Henderson at TLA Engineering & Planning