



April 22, 2022  
SMC6071A

TO: Camille Leung  
Senior Planner  
San Mateo County  
455 County Center, 2<sup>nd</sup> Floor  
Redwood City, California 94063

SUBJECT: **Geotechnical Peer Review of Highlands Development**  
RE: Lots 5 through 8  
Highland Estates Subdivision  
PLN2020-00412

At your request, we have reviewed the following documents in reference to the Environmental Impact Report (EIR) Addendum:

- Updated Geotechnical Engineering Study (letter) prepared by Earth Systems, Inc., dated April 8, 2022.

In addition, we have discussed the project with the Project Planner and County Geotechnical Division Staff.

### **DISCUSSION**

Previously, our office completed a geotechnical peer review and prepared draft letter dated July 29, 2021, regarding an Environmental Impact Report (EIR) Addendum for a residential construction project. In our peer review, we concluded that Cornerstone Earth Group had adequately investigated the site and evaluated site hazards, and provided mitigation recommendations in general conformance with the standard of practice within the County, and documented these findings and recommendations in their 2015 Updated Geotechnical Investigation. We also noted in communication with County Staff that the Project Geotechnical Consultant would typically perform a supplemental site reconnaissance and provide updated seismic design criteria and other recommendations, if applicable, when the project sought eventual building permit approval.

We understand that Earth Systems is assuming the role of Geotechnical Engineer of Record for the proposed project.

### **SITE CONDITIONS AND GEOTECHNICAL EVALUATIONS**

Based on our prior geotechnical peer review, we understand that the project site is characterized by a moderately steep south sloping hillside located along the northern side of Ticonderoga Road, in San Mateo County. We also understand that four lots are proposed for construction of new single-family residences and associated site improvements. To construct the residences, the Project Team proposes to perform grading to mitigate landslides identified at the site. The depth and geometry of landsliding across the site has been investigated using subsurface methods; including: 7 test pits and 2 borings at the site along with an additional test pit and boring off-site. The applicant's previous Consultant provided engineering geologic cross sections and mapping delineating their interpretation of the depth and distribution of landsliding and undocumented fill. The previous Consultant also have provided grading, drainage, and foundation recommendations intended to mitigate these site hazards. Site landslide debris is proposed to be removed and replaced as part of site grading for the proposed residences and yard areas. We understand final cut slopes will be supported by retaining walls with pier foundations, and proposed residences will also be supported by pier and grade beam foundations. The previous Consultant notes that the Contractor is responsible for maintaining temporary slopes during grading, but recommends the Contractor classify the upper 10 feet of site soils as OSHA type B soils.

We understand that Earth Systems has reviewed prior geotechnical reports and recommendations, performed a recent site reconnaissance, and provided updated seismic design parameters based on the currently adopted building code (CBC 2019).

### **CONCLUSIONS AND RECOMMENDED ACTION**

We understand that Earth Systems finds no evidence of recent grading or landsliding during their site visit and also finds that the prior recommendations for the proposed landslide repair and residential construction are still valid. We understand that appropriate documentation will be completed and submitted to the County to confirm Earth Systems as the **Geotechnical Engineer of Record** for the project. That documentation should confirm that Earth Systems has reviewed all of the Cornerstone Earth Group work included but not limited to investigation, mapping, laboratory testing, conclusions, recommendations, and that Earth Systems is in complete agreement and accepts all of the Cornerstone Earth Group findings without qualifications. If not, Earth Systems should complete whatever necessary investigation and analysis to proceed as the **Geotechnical Engineer of Record**, without qualifications.

We understand that the Project Geotechnical Consultant (Earth Systems) will review project building and grading plans for conformance with their recommendations prior to site work, in accordance with Section One requirements from the County Geotechnical Division.

We also understand the Consultant will be retained to provide construction observation services to evaluate site conditions exposed during construction, provide supplemental recommendations, as necessary, and ensure conformance with the findings of their report. Specifically, the applicant's Consultant will inspect excavations for evidence of instability and unanticipated conditions, and provide supplemental mitigation recommendations (i.e., additional subsurface drains, stable temporary slope inclinations, the need for shoring walls, etc.), if necessary.

With the understanding above we do not have geotechnical objections to approval of subject permit applications.

**LIMITATIONS**

This geotechnical peer review has been performed to provide technical advice to assist the County with discretionary permit decisions. Our services have been limited to review of the documents previously identified. Our opinions and conclusions are made in accordance with generally accepted principles and practices of the geotechnical profession. This warranty is in lieu of all other warranties, either expressed or implied.

Respectfully submitted,

**COTTON, SHIRES AND ASSOCIATES, INC.**



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DTS:CS

**COTTON, SHIRES AND ASSOCIATES, INC.**