

Job No. 190388

February 21, 2024

William Guman & Associates, Ltd
731 North Weber Street, Ste 10
Colorado Springs, CO 80903

Re: Response to:
Colorado Geological Survey, comments dated November 27, 2023
El Paso County Planning and Community Development, comments received Jan. 25, 2024
Esteban Subdivision
EL Paso County, Colorado

Dear Mr. Guman:

RMG - Rocky Mountain Group prepared the "*Soil and Geology Study*" (RMG Job No. 190388, last dated April 27, 2023) for the proposed development project to consist of single-family residential lots on approximately 496.25 acres east and south of Curtis Road and Judge Orr Road, El Paso County, Colorado. The report was reviewed by personnel of the Colorado Geological Survey (CGS) and El Paso County Planning and Community Development (EPCPCD). The purpose of this letter is to provide our response to the latest CGS and EPCPCD review comments. The responses and modifications noted herein have been incorporated into our amended report.

For clarity and ease of review we have "snipped" each of the comments followed by our response.

CGS Comment:

Potential flooding and shallow groundwater are significant constraints to development. CGS recommends that the sketch plan note that no basements or below-grade inhabitable space are allowed without a yearlong monitoring program that gathers groundwater elevation data. This information will determine if an underdrain system or combination of other mitigation, such as raising site grades or garden-level basement construction, is warranted for the subdivision.

RMG Response:

It is our understanding that the plan has been updated to include a note that no basements or below-grade inhabitable space are allowed without a yearlong monitoring program that gathers groundwater elevation data.

EPCPCD Comment:

The following two comments were on page 16 of our Soil and Geology Study:

A year-long groundwater monitoring study is undertaken, and the results indicate that groundwater is sufficiently deep (greater than 15 feet) to allow basement construction;

This study should be done beforehand to determine where grading is feasible

RMG Response:

Based on the groundwater measurements included in our report, the areas where the groundwater is shallowest are low-lying areas near the drainage. Significant overlot grading is not anticipated for the site in general, and even where grading is performed we would expect these areas to be areas of "fill" rather than of "cut". As such, the expected grading (if any) would increase the separation from groundwater, rather than decreasing it. Therefore, it is our opinion that the groundwater monitoring study is not essential to determining the proposed grading.

EPCPCD Comment:

... to prevent the intrusion of water into areas below grade. A typical detail is shown in Figure 32.

State that the groundwater district has requirements regarding removal of groundwater

At the time of the site-specific subsurface soil investigations within the foundation slab elevation, an underslab drain would be considered in the foundation slab. It must be understood that subsurface drains are designed to remove moisture and not others. Therefore, the drain(s) could operate to solve moisture problems relating to foundation performance or moisture intrusion. A typical underslab drain detail is presented in Figure 33.

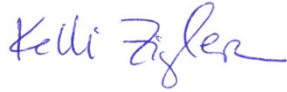
RMG Response:

A statement has been added to our revised report.

I hope this provides the information you have requested. Should you have questions, please feel free to contact our office.

Cordially,

RMG – Rocky Mountain Group



Kelli Zigler
Project Geologist

Reviewed by,

RMG – Rocky Mountain Group

Tony Munger, P.E.
Sr. Geotechnical Project Manager

