

September 26, 2024

PT Eagleview, LLC  
1864 Woodmoor Drive, #100  
Monument, Colorado 80132



**ENTECH**  
ENGINEERING, INC.

505 ELKTON DRIVE  
COLORADO SPRINGS, CO 80907  
PHONE (719) 531-5599

Attn: Joseph DesJardin

Re: Response to CGS Review Comments  
Eagleview Subdivision  
El Paso, Colorado  
Entech Job No. 212684

Ref: Entech Engineering, Inc., revised date August 22, 2022. *Soils and Geology Study, Eagleview Subdivision, Arroya Lane and Raygor Road, El Paso County, Colorado*. Entech Job No. 212684.

Colorado Geological Survey, date September 11, 2024. *Review Comments by the Colorado Geological Survey*.

Dear Mr. DesJardin:

Entech Engineering, Inc. (Entech) has reviewed the CGS comments dated September 11, 2024 on the Eagleview Subdivision. This letter presents our responses to the CGS comments. The CGS comments are attached to this letter. The responses to their comments are presented below:

## **ENTECH ENGINEERING, INC. RESPONSES**

**Entech Response to Comment 1:** Groundwater was not encountered in the test borings drilled on the site by Entech in 2002 during or subsequent to drilling. During site mapping completed in 2002 and verified in 2021 groundwater was not observed in any of the drainages on the site. A recent site visit was conducted on September 20, 2024 to evaluate the drainages on the site and to confirm no significant changes have occurred that would require revisions to the previously completed mapping.

Entech agrees with CGS that foundation levels should maintain a minimum separation of 3-feet from groundwater elevations. We believe a plat note stating no basements or inhabitable below-grade areas are allowed is not warranted due to the size of the lots. Additional investigation of the lots will be required prior to construction to evaluate the conditions (soil and water) in the building locations. Site specific investigations, and tactile test pit evaluations for Onsite Wastewater Treatment Systems (OWTS) will also be required for each lot prior to construction. Basement feasibility should be determined on a lot by lot basis at the proposed building location.

**Entech Response to Comment 2:** Areas mapped as seasonal shallow groundwater (sw) on Figure 6 are located within drainage easements/no-build areas and will be avoided. The main drainages on the site are within drainage easements that will not be built within. The lots are large rural lots that have multiple building locations.

**Entech Response to Comment 3:** The subdivision will consist of rural residential lots with individual OWTS and water wells. An underdrain system will not be used for the development. Additional investigation of the lots will be required to further delineate shallow groundwater impact areas prior to construction. Site specific soil and foundation investigations, and tactile test pit evaluations for OWTS will be required for each lot prior to construction. Perimeter foundation drains will be required on all lots with usable space below grade. The need for interceptor or underslab drains should be determined during each investigation. These additional drains should be installed as needed with gravity discharge or to a sump if gravity discharge is not achievable.

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We trust this has provided you with the information you require. If you have any questions or need additional information, please do not hesitate to contact us.

Respectfully Submitted,

ENTECH ENGINEERING, INC.

A handwritten signature in blue ink, appearing to read "Logan L. Langford", is written over a light blue rectangular background.

Logan L. Langford, P.G.  
Sr. Geologist

Reviewed by:



Joseph C. Goode, Jr., P.E.  
President

LLL:JCG

Encl.

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...Colorado Geological Survey	With this referral, CGS received a request to provide Review Comments (Email dated August 28, 2024); Final Plat (Rampart Surveys, LLC, August 2, 2024); Construction Documents (Kimley Horn, August 14, 2024); and other documents.	9/11/2024 11:22:52 AM
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9/11/2024 11:22:52 AM	CGS submitted comments on January 5, 2022, January 18, 2023, and July 17, 2024. Our comments have not been fully addressed. Previous test borings for this development were drilled in 2002 as provided in Entech's Soil, Geology, and Geologic Hazard Study and Wastewater Study. CGS has the following comments and recommendations.
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1. CGS recommends that groundwater monitoring/observation studies be conducted through at least the high groundwater seasons (spring and summer) if basements or below-grade areas are planned. Proposed floor levels should be at least three feet above the maximum anticipated groundwater levels and maintained year-round. If a groundwater monitoring/observation program is not performed, CGS recommends a plat note stating that no basements or inhabitable below-grade areas are allowed.

2. CGS recommends that no building construction be allowed in areas with seasonal shallow groundwater (sw of Entech's Figure 6).

3. The revised final plat (note 13) states, "In areas of potentially seasonal groundwater, foundation perimeter drains shall be installed as determined by the geotechnical engineer. Perimeter drains will be maintained by the homeowner." An underdrain system should be allowed ONLY if it can gravity discharge to a daylight outfall or is connected to an existing underdrain system that gravity discharges to a daylight outfall. CGS recommends that the plans show the underground drainage system with connections to individual underdrains for each lot. Individual foundation perimeter drains are intended to handle small amounts of intermittent, perched water and may NOT be used to mitigate persistent shallow groundwater conditions.

4. CGS recommends that Entech provide specific recommendations for the regional detention pond, such as soil/liner requirements, dewatering/stabilization methods, etc., prior to approval. If any component of the proposed detention areas/ponds will cause excess (greater than pre-development) infiltration into site soils, consultation with a geotechnical engineer is recommended to evaluate the suitability of the site soils, identify potential impacts, design/install cut-off/slurry walls, and establish minimum distances between the infiltrating detention areas, structures, and pavements.

Comments uploaded to El Paso County Development Application Review on 9/11/2024 by Amy Crandall, P.E., Engineering Geologist, Colorado Geological Survey (acrandall@mines.edu).