

COLORADO GEOLOGICAL SURVEY

1801 19th Street
Golden, Colorado 80401



Karen Berry
State Geologist

March 29, 2018

Raimere Fitzpatrick
El Paso County
Planning and Community Development
2880 International Circle, Suite 110
Colorado Springs, CO 80910

Location:
N ½ of N ½ of Section 27,
T11S, R66W of the 6th PM
39.0699°, -104.7663°

**Subject: Rollin Ridge Estates Subdivision, Preliminary Plan, El Paso County, CO;
El Paso County File # SP181, CGS Unique No. EP-18-0057**

Dear Raimere:

The Colorado Geological Survey has reviewed the subject referral. The submitted documents were: request for review (El Paso County, 3.5.18), Application (1.3.18) and Letter of Intent, Site Grading and Erosion Control Plan (JPS, 12.7.17), Soil, Geology, Geologic Hazard and Wastewater Study (Entech, 11.24.17), and various other documents. According to the Letter of Intent, the applicant plans to rezone the 57 acre property to develop 16 single-family lots at a minimum of 2.5 acres each and a 5.53 acre tract for future commercial development.

The site does not contain steep slopes, is not undermined, and does not contain, nor is it exposed to, any geologic hazards that would preclude the proposed residential and commercial use and density. However, several geologic conditions exist at this location requiring site specific investigations, detailed engineering recommendations, and careful attention during construction. We offer the following comments on these conditions.

Soil and bedrock engineering properties. Entech makes appropriate *preliminary* geotechnical recommendations based on the results of two profile holes and fourteen test pits, and limited laboratory testing. Entech identifies the potential for expansive soils at this location.

- Additional geotechnical investigations and analysis are recommended, and will be needed, once building locations are finalized, to more accurately characterize lot-specific soil and bedrock engineering properties such as expansion/consolidation potential, density, corrosion potential, etc. This information is needed to determine subgrade preparation requirements and to design individual foundations, and floor systems.

Shallow groundwater. Seasonal shallow groundwater has been identified by Entech along with the recommendations for subsurface perimeter drains. Lot-specific geotechnical investigations must determine if passive perimeter drains are adequate for each lot or if additional mitigation (underdrains) are necessary. The areas of shallow, hard bedrock can also develop perched groundwater conditions and should also be evaluated for shallow groundwater potential. Drain recommendations will be critical for mitigation of existing and/or future development of shallow groundwater on this property.

Provided these and Entech's other recommendations about on-site wastewater treatment and erosion control are strictly adhered to, CGS has no objection to approval of the Preliminary Plan as proposed.

Raimere Fitzpatrick
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Thank you for the opportunity to review and comment on this project. If you have questions or require further evaluation, please call us at 303-384-2654, or e-mail jlovekin@mines.edu.

Sincerely,

A handwritten signature in blue ink that reads "Jonathan R. Lovekin". The signature is written in a cursive style with a large initial 'J'.

Jonathan R. Lovekin, P.G.
Senior Engineering Geologist