

COLORADO GEOLOGICAL SURVEY

1801 Moly Road
Golden, Colorado 80401



Karen Berry
State Geologist

July 19, 2019

Nina Ruiz
El Paso County
Planning and Community Development
2880 International Circle
Colorado Springs, CO 80910

Location:
W½ Section 9,
T15S, R65W of the 6th P.M.
38.7562, -104.6777

**Subject: Trails at Aspen Ridge PUDSP191 (previously reviewed as Springs East at Waterview SP-17-010)
El Paso County, CO; CGS Unique No. EP-18-0011 5**

Dear Ms. Ruiz:

Colorado Geological Survey has reviewed the Trails at Aspen Ridge combined PUD/preliminary plan resubmittal. I understand the applicant currently proposes 605 SF residential lots (previously 516 lots) on 118 acres located southeast of S. Powers Blvd. and Bradley Road, east of Security-Widefield.

The available referral documents include:

- Trails at Aspen Ridge Letter of Intent (revised June 26, 2019),
- Geologic Hazard Addendum, Springs at Waterview East (Entech Engineering, Inc., April 10, 2019),
- Set of eight Trails at Aspen Ridge Grading and Erosion Control Plans (Matrix Design Group/Stantec, June 2019),
- and other documents.

CGS previously discussed concerns about insufficient subsurface information in the northeastern and southwestern areas of the site, where significant cuts are planned. **The additional borings described by Entech in their 4/10/2019 addendum are not located within the areas of concern.**

The additional borings described by Entech (two sets of two borings, both labeled TB-1 and TB-2) are located as follows:

Entech's Appendix B boring TB-1 is located near the Legacy Drive/Frontside Drive cul de sac where, according to sheet 4 of the June 2019 Grading & Erosion Control Plans, approximately 10-15 feet of fill is proposed. TB-2 is located northwest of the Legacy/Frontside cul de sac, in a commercial area outside of the Trails at Aspen Ridge development area, described on sheet 4 of the grading plans as "unplatted."

The locations of Entech's Appendix C borings are difficult to determine because of the poor quality of Figure 2, but appear to be located east of proposed Wagon Hammer Drive, outside of the currently proposed Trails at Aspen Ridge development area, within the existing Phase 1 (Not a Part)/Filing 1 Area To Remain identified on the PUD and grading plans.

Our previous comments therefore remain valid: Entech's borings in some areas of the Trails at Aspen Ridge PUD/preliminary plan do not extend to sufficient depths to provide meaningful information about soil and bedrock engineering properties and groundwater levels.

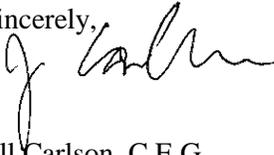
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Additional investigation, sampling, testing and analysis are needed in proposed areas of cuts exceeding about 8 feet, based on the project grading plans, to characterize subsurface conditions, determine depth and extent of overexcavation, if overexcavation is planned to reduce the use of drilled pier foundations, and to determine basement feasibility where Entech's borings did not extend to sufficient depth below planned basement floor and foundation bearing depths.

Entech has previously stated that "Overexcavation depths of 4 to 6 feet are anticipated for the site." This means 4 to 6 feet below foundation bearing elevations. For a development of the proposed density, overexcavation should be performed over the entire area within a specific construction phase determined to require overexcavation, at the grading phase of development, before wet utilities are installed. In areas of expansive soils, significant cuts and/or shallow claystone bedrock, roads will require overexcavation as well.

Thank you for the opportunity to review and comment on this project. If you have questions or require additional review, please call me at (303) 384-2643, or e-mail carlson@mines.edu.

Sincerely,



Jill Carlson, C.E.G.
Engineering Geologist