

EP-24-0045 Grandview Reserve Phase 2

File No. PUDSP236

Portion of Section 21 and a portion of NE¼ Section 28, T12S, R64W, 6th P.M.

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Grandview Reserve Phase 2

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CGS previously reviewed the Grandview Phase 2, submitting comments on January 24, 2024 and March 26, 2024. We understand that Phase 2 will now include 224 townhomes and 206 duplex units on 68.62 acres. The updated referral documents include the Geologic Hazard Evaluation and Preliminary Geotechnical Investigation (CTL Thompson, Inc., Revised January 23, 2025), Letter of Intent (HR Green Development, LLC, January 17, 2025), PUD Development Plan and Preliminary Plan (HR Green, January 28, 2025), Early Grading and Erosion Control Plan (HR Green, March 8, 2024), and other documents. CGS's previous comments are generally repeated herein.

1. Based on the referral documents, the site is located within a designated FEMA floodplain (Map Numbers 08041C0556G and 08041C0552G, December 7, 2018) and plans are in process to establish new floodplain limits for Channel B. CGS understands that no platting of any lots or grading will be allowed within the floodplain limits until the Conditional Letter of Map Revision (CLOMR) is approved. **CGS recommends establishing a setback from the flood hazard boundary to reduce hazards associated with not just floodwater inundation but also erosion and scour.** CGS looks forward to reviewing the preliminary plat application once the flood limits are approved/revised.
2. The letter of Intent states (p. 9), "Due to the known high groundwater conditions there will be no basement foundations proposed within the Phase 2 project limits." Additionally, the PUD states, "No basements are proposed within the limits of this development plan." CGS agrees that no below-grade levels should be allowed within the Grandview Reserve Phase 2 Development.
3. The Letter of Intent (page 9) references a report prepared by Entech; this should be CTL Thompson, Inc.
4. CGS commends CTL for installing monitoring wells within the site. Measurements from September and October 2024 indicated groundwater depths between 0.1 and 9 feet. CGS recommends that groundwater elevations within these wells continue to be measured following early grading operations. CGS agrees with CTL (p. 9), "the measured peak groundwater depths indicate the proximity of groundwater to crawlspace level foundation systems is a concern throughout portions of the development," and with their mitigation recommendations, "Raising site grades or utilizing slab-on-grade foundation systems." The separation distance between the lowest floor levels and maximum anticipated groundwater levels (determined by the monitoring program) should be at least three feet (preferably five feet) and maintained year-round. CGS agrees with CTL, "Typical foundation drains are capable of dealing with minor surface water infiltration but are not designed as a dewatering system for groundwater."
5. Note 1 of the Soil and Geology Conditions on the PUD Development Plan states, "...where groundwater conditions are encountered within 2' of detention ponds, a clay or geosynthetic liner

is recommended.” Pond A and Pond B are located within Phase 2. CTL’s revised study does not explicitly provide recommendations for a pond liner. Their previous study (February 27, 2024) stated, “Where the design bottom elevation of a detention pond is above the depth of peak groundwater measured in monitoring wells, a pond liner could be installed to maintain separation from groundwater. Buoyancy of the liner should be taken into consideration.” However, this statement was removed from CTL’s January 23, 2025 revised study. CGS recommends that CTL review monitoring hole data in relation to the proposed detention pond grades and provide specific recommendations for the detention ponds, including the need for a pond liner, as applicable.

6. The geologic hazard note on the preliminary development plan should be incorporated into the preliminary and final plat going forward.
7. We understand that the water supply for the full buildout of Grandview Phase 2 is still unknown. The availability of groundwater for huge developments such as this can be problematic and is becoming more so due to drought and dwindling water resources. CGS recommends that the basis of assumptions of available groundwater for this project be provided to the county for review before approval of final plans.

Submitted 2/19/2025 by Amy Crandall, Engineering Geologist, Colorado Geological Survey (303-384-2632 or acrandall@mines.edu)

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