

MEMORANDUM

To: Town of Fraser
Attn: Catherine Trotter, Town Planner
From: Tim Gagnon, P.E.
Date: June 11, 2018
RE: Elk Creek Filing No. 5 – Development Permit and Final Plat Submittal

The following documents were reviewed by Bowman Consulting, for the Development Permit and Final Plat submittal for the Elk Creek Filing No. 5 at Grand Park Subdivision:

1. Construction Plans: “Elk Creek at Grand Park Addendum No. 5 Construction Plans” from TKE, dated 05/07/18
2. Development Permit: “Elk Creek at Grand Park Filing No. 5” from Terracina Design, dated 05/16/18
3. Final Plat: “Elk Creek at Grand Park Filing No. 5,” from David Evans and Associates, dated 05/29/18
4. Estimated Costs: “Engineer’s Opinion of Probable Cost – Elk Creek at Grand Park – Addendum 5” from TKE dated 05/07/18

Based on our review of these documents, we do not recommend Final Plat Acceptance until the following comments are addressed.

General Review Comments

1. We need to review the Geotechnical Report when it becomes available.
2. It appears that the 4-foot wide sidewalk that was previously proposed as a part of the Preliminary Plat submittal has been removed from the Final Plat submittal. Did the Town staff and Board approve this change?

Review Comments for Development Plan and Construction Plans

3. The road cross section in the construction plans will need to be updated once final geotechnical pavement section recommendations are received.
4. A water valve should be added on the south side of the water main tee on CR 72 and on the west side of the water main tee at Elk Ranch Road.
5. The detention pond needs to include a hard-surfaced access for maintenance purposes.

Review Comments for Final Plat

6. The 100-year pond water surface encroaches into Lots 3 and 4 and will require a permanent drainage easement within these lots included on the plat which indicates this area for maintenance purposes and as a no disturbance area.
7. An easement shall be included that encompasses the hard-surfaced pond access indicated on the construction plans.

Review Comments for Drainage Calculations

8. Drainage calculations are needed for DP 1 to properly size the proposed 18-inch culvert.
9. It is unclear how drainage from drainage basin DA – 03 is getting conveyed to the pond.
10. The detention pond sizing calculations are based on soil type 'A' and will need to be verified by the geotechnical report findings or a NRCS Soils Survey Report reference.
11. The EDB calculation spreadsheet shows a need for 0.097 acre-feet of storage but the stage storage calculations and plans only appear to provide 0.072 acre-feet of storage.
12. Drainage basin DA01 has five developed lots with in this ½-acre basin but is indicated as only 5% overall imperviousness. Please clarify.

Review Comments for Cost Estimate

13. The costs for the detention pond do appear to be included, including outlet structure, berm grading, (hard-surfaced) access, etc.
14. The unit costs in general are too low almost across the board. Construction bids recently received by the Town do not support these lower unit costs.

Please contact us if you have any questions or comments.