

March 1, 2022

Stig Owens, P.E.
Sekiv Solutions
14207 Pond Chase Place
Midlothian, VA 23113

**RE: Discovery Ridge Townhomes
13000 Gayton Road
FILE NO: 5553 POD2021-00469**

Dear Mr. Owens:

We have reviewed the construction plans submitted to the Planning Department on February 10, 2022.

Please address the following comments and **resubmit revised construction plans** for review. Water and Sewer Agreements that must be executed by the Owner and the County for water and sewer improvements **have not** been executed.

General:

1. Agreements have not been executed at this time. Agreements must be executed prior to the authorization to begin utility construction or approval of building permits. An Information Sheet for the Preparation of Utility Agreements has not been submitted for review. If the Information Sheet is incomplete when submitted, we will send you comments for correction and resubmittal. If the required Information Sheet is complete when submitted, an Agreement will be forwarded to the Owner for signature within 21 days.
2. Revise the Project Summary Report (Form F-10) per the following and resubmit:
 - Revise the waterline pipe quantities within the Project Summary Report (Form F-10) to match the water material quantities on the plans.
 - Revise the peak hour demand to be 13.5.
3. Revise the water and sewer design calculations form as follows:
 - a. Revise the peak factor in the sanitary sewer design to be 8.3.
 - b. Revise the peak hour flow in the water system design to be 13.5.
 - c. Revise the total design peak flow to be 1763.5.
4. Sewer Design Form and NOI Form are not required for this project and were not submitted with the Engineering Report. It should label as N/A in the Engineering Report.

Cover Sheet:

5. Provide original signature and date on the engineer's seal.

Existing Survey Boundary & ROW Plat (C-003) and Parking Summary (C-100) and Existing Conditions (C-101.1&C-101.2):

6. There are many valves, hydrant, and waterline surrounding the site not shown on these sheets.
7. Why are there 2 water meters for the site?

8. Reduce the size of the fire hydrant valve to show it on the 6" water line instead of in the middle of the tee.
9. Show all the utilities surrounding the site especially the water valves.

Demolition & Erosion Control Plan (C-102.1&C-103.2):

10. Remove all the hatching at the site entrance from Gayton Road that covering up all the existing watermain, fire hydrant, and valve.
11. The limits of disturbance should be shown to go all the way to the existing sanitary sewer manhole.

Utility Plan (C-105.1&C-105.2):

12. Recommend providing three field elevations at the existing manhole (two invert ins and one invert out).
13. Lengths of sanitary sewer shown on the plan don't match with lengths shown on the profile.
14. Slope shown on the plan does not match with slope shown in the profile.
15. Review the bearing and the deflection angle of the proposed sanitary sewer.
16. Provide 8 feet of separation between the sanitary sewer and the storm structure such as manhole and drop inlet.
17. The label of the typical sewer and water service connections are not legible.
18. Eliminate the unnecessary 8" proposed valve on the western side of the fire hydrant tee.
19. Proposed manholes 3,4, and 5 should have the standard frame and cover since they are in the paved area.
20. Show the location of waterline adjustments in the water main by providing a bubble or circle around the adjustment area on the utility plan where the waterline dip under the storm sewer.
21. Eliminate hatching shown in the utility plan which covering up all the valve and the corporation stop.
22. Clearly show the limit of the utility easement for the proposed sanitary sewer. Revise the easement for the sanitary to provide 10 feet on all side of manhole 5. Eliminate easement for the sewer lateral to Lot 7 Block D since all laterals are going to be maintain by HOA. The easement line should go straight through instead of at an angle.
23. Label the demand for the irrigation meter and eliminate the meter sizing form.
24. Update the utility quantities list.

Profile (C-201):

25. See comments on the utility plan and update the profile.
26. Eliminate drop connection at manhole 2.
27. The 8" valve is on the wrong side of the tee at station 60+40.
28. Flip the water line profile so it is in the same direction as the plan view.

Utility Notes &Details (C503.1-503.4):

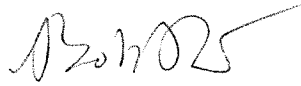
29. Eliminate the Domestic Meter Sizing Form.

If you have any questions concerning the above noted comments or the plans, please contact me at 501-4601.

Stig Owens, P.E.
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Discovery Ridge Townhomes

Sincerely,

A handwritten signature in black ink, appearing to read 'Bob Dao', with a long horizontal stroke extending to the right.

Bob Dao
Utilities Engineer

cc: W.E. Sterling, Discovery United Methodist Church
Rob Lanphear, Pivot Development

bc: Ralph Claytor
D. Ivy; M. Gallagher
Mike Kennedy, Planning

BQD/tt