June 6, 2022

Amelia Wehunt, PE
Timmons Group
1001 Boulders Parkway, Suite 300
Richmond, VA 23225

RE: 2001 Dabney Road
2001 Dabney Road
FILE NO: 5579; POD2022-00146

Dear Ms. Wehunt:

We have reviewed the construction plans submitted to the Planning Department on May 19, 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. An Information Sheet for Preparation of Agreements for Water and/or Sewer Service has been submitted. **The Information Sheet allows the Department of Public Utilities to prepare the Water and Sewer Agreements which must then be executed by the Owner and the County prior to approval of building permits or prior to the utility pre-construction meeting and authorization to proceed with utility construction.** It is recommended that the Information Sheet be submitted as soon as possible to avoid delays in either of these steps. Preparation of the Agreements may take up to 15 days after receipt of the Information Sheet and execution by the County after execution by the Owner may take up to 10 days. Conflicts between the completed Information Sheet and the plans may generate additional review comments.
2. DPU is reviewing the fire hydrant exception letter dated May 19, 2022. If the exception is granted, please list the exception under exceptions granted on the cover sheet.
3. Landscaping and lighting cannot be approved until the final utility layout is approved.
4. As previously commented, a DEQ permit (certificate to construct) will be required for this project since the average design flow is over 40,000 gpd. A tech-memo will be issued only after DPU receives a copy of the approved permit.
5. Review the following comments on the Water and Sewer Design Calculations:
    a. Review the lowest residual pressure in the system at total design peak flow. How was the 20psi derived? Attach the hydraulic calcs to support how this number was derived.
    b. The Peak Flow and Peaking Factor is incorrect in the sanitary sewer design. Review and revise as necessary.
    c. The design fire flow in the water system design does not match the required fire flow on the ISO calcs. Revise this number to coordinate with the design fire flow on the ISO calcs.
    d. The total design peak flow is evaluated by adding the design fire flow plus the peak hour flow.

Sheet C2.00:

6. The meter numbers and sized referenced for the existing water meters are incorrect.
7. Referenced the GIS MH ID numbers for the existing manholes.
8. Reference the CSB and/or Field, rim, and invert information for the existing manholes on plan.
9. As previously commented, provide a note on the plan indicating all existing utilities to be abandoned shall be done in accordance with DPU Standards 1.4.01C and 10.3.10.
10. Be advised, if a building demolition permit is desired prior to construction plan approval, then a separate disconnection or abandonment plan must be prepared and approved in advance of the demolition permit showing either disconnection location for the water and sewer services or complete abandonment for services at the water and sewer main. Disconnection or abandonment of the services would be required prior to approval of the demolition permit.

Sheet C7.00:

11. Change the size of the tapping sleeve & valve for the proposed 8" fire line south of the building from "12" x 6" TS&V" to "12" x 8" TS&V".
12. The private 8" water line south of the proposed building is not acceptable. A public water main is required for the installation of the proposed fire hydrant. Provide a 20' utility easement around the water main and remove the word "Private" in the water line reference.
13. The water line will need to be located 10' from the proposed detention system.
14. Relocate the fire hydrant and water line 10' from the proposed transformer unit.
15. As previously commented, a note has been provided indicating a domestic and fire booster may be required. If a booster pump will be installed, this needs to be determined/confirmed prior to receiving a tech-memo.
16. As previously commented, if a booster pump will be installed, provide the following note on the plan, "The fire pump must have a control device to prevent a reduction of pump suction line pressure to less than 20 psig."
17. As previously commented, reference the internal angle at the manhole connections.
18. Label MH-S2 as a "doghouse".
19. Provide a sanitary sewer profile of the doghouse manhole to the next upstream and downstream manhole.
20. MMH-S3 and MMHS1 are located in the proposed sidewalk. Relocate the manholes out of the sidewalk to avoid a trip hazard.
21. MMH-S1 is too close to the proposed building. Provide the horizontal distance from the manhole to the building.
22. Install the proposed fire hydrant located north of the building at the point of tangent.
23. Revise Material Quantities per the plan comments.

Sheet C7.10:

24. Change the slope of the 8" sanitary sewer pipe to the minimum slope. This will provide additional vertical separation between the existing water pipe and 8" sewer pipe on the sanitary sewer connection #1 profile.
25. Change the material of the sanitary sewer pipe from "PVC" to "DI" and provide select backfill 21A or B between the water line crossing and sanitary sewer pipe on the sanitary sewer connection #1 profile.
26. Provide the invert in (S1 to EX2) at MH-EX2 on the sanitary sewer profile.

Sheet C7.20:

27. Based on the Needed Fire Flow, four (4) fire hydrants are required for this project. Only three fire hydrants have been provided. An additional fire hydrant is required for this project. Be advised, the dedicated fire hydrant cannot be used to meet hose lay requirements nor can it be used to meet the number fire hydrants required on the ISO calculations.
28. Specify the type of retail for the commercial use referenced on the Domestic Meter Sizing Form.
29. Will the Apartment units have flush valves or tank type toilets in each unit? Review the type of toilets to be installed in the apartment units and revise the Domestic Meter Sizing Form accordingly.
30. Specify a dual 2" water meter will be used on each of the Domestic Meter Sizing Forms.

If you have any questions concerning the above noted comments or the plans, please contact me at 501-4508 or John Yi at 501-4511.

Sincerely,

ANT

Alice Thompson
Utilities Engineer

cc: Andrew Basham, SR Dabney Road, LLC

bc: Ralph Claytor
Marchelle Sossong
Daniel Ivy
Mike Kennedy, Planning

ANT/tt

REVISED CONSTRUCTION PLANS REQUIRED