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 Mr. Wehunt:

The Department of Public Utilities has completed a review of the water and sewer plans that are part of the plan of development submitted to the Planning Department on April 11, 2022.

DPU recommends approval of these plans by the Planning Commission.

Please address the following comments before submitting the construction plans for signature.

### General:

- 1. An Information Sheet for Preparation of Agreements for Water and/or Sewer Service has not 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. Landscaping cannot be approved until the final utility layout is approved.
- 3. Install the lighting structures approximately 10' from the proposed water and sewer utilities.
- 4. 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.

#### C2.00:

- 5. DPU does not allow legends to replace direct callouts. Do not identify utility items with numbers and a note table. The lines and appurtenances must be labeled directly on the plan. See the utility plan as well.
- 6. Darken the existing utilities on Dabney Rd so the information can be clearly seen when the plan is scanned for archives. Review the drawing guidelines in Section 5 of DPU Standards.
- 7. Provide a note indicating all existing utilities will maintain minimum cover and be protected during construction.
- 8. Lighten the hatching for demolition on the construction plan so the existing utilities/items can be clearly seen.
- 9. Reference the size and meter number for the existing water meter to be abandoned.

- 10. Clearly show/identify the abandonment of the existing 5/8" water meter, 6" detector check, and 8" water line and valves.
- 11. Be sure to specify clearly on the demo plan that the two existing sewer laterals will be abandoned in accordance with DPU Standards.
- 12. 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.
- 13. 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.

# C5.00:

- 14. Provide four (4) northing/easting points on the plan.
- 15. Show the location of all existing gas lines within Dabney Rd.
- 16. Field verify the location of the existing water/sewer mains and utilities to avoid construction conflicts. GIS data is not 100% accurate when depicting the location of the existing utilities.
- 17. Will there be any businesses in the building that will offer services to outside customers? If so, DPU will need a Domestic Meter Sizing Form for the businesses.
- 18. Label the horizontal separation between the storm sewer and fire hydrant/meter.
- 19. Provide a minimum of 5-8' separation between the storm sewer and fire hydrant/meter.
- 20. The proposed building does not meet DPU 350' hose lay requirements. Additional fire hydrants will be required for this project.
- 21. Relocate the proposed 2" domestic meter and fire hydrant out of the sidewalk.
- 22. Show the valve on the fire hydrant lead, fire service line, and domestic line near the tee in accordance with the utility details.
- 23. No bends are allowed in the domestic service between boundary valve and water main. If bends are necessary, place the bends on the fire service line after the boundary valve. Review the bend in the domestic service line as well.
- 24. Use a 12" x 4" tapping sleeve & valve to connect the water meter to the existing water main.
- 25. Specify the length of the 4" DI line on the domestic service line and show the location of the 2" tapped plug prior to the water meter.
- 26. Use tapping sleeve & valves to connect to the existing water main to prevent a water main shut down.
- 27. DPU no longer uses detector checks on the fire system lines. Replace the detector check with a boundary valve in accordance with D-436 and D-476.
- 28. Fire hydrants must be installed a minimum of 50' from the building. If 50' cannot be obtained, provide an exception to DPU Standards to allow the fire hydrant to be installed less than 50' from the building.
- 29. A high hazard fire system backflow preventer per ASSE 1047 is required for this project per D-435. Update the utility callout as necessary.
- 30. Use a 12" x 6" tapping sleeve & valve to connect the fire hydrant to the existing water main. Fire hydrant must be installed in accordance with the fire hydrant detail D-495.
- 31. The existing fire hydrant located north of the building (referenced to be removed on the demolition plan) will need to be replaced with a new hydrant. The location of the existing fire hydrant provides fire protection for the adjacent buildings on Dabney Rd.
- 32. Provide a dedicated fire hydrant for the proposed fire sprinkler system. Make sure to dedicated fire hydrant is within 50' of the siamese connection.

- 33. Is there enough room to install the fire hydrant connection between the two existing fittings in the water main? DPU suggests relocating the proposed fire hydrant near to the water meter connection.
- 34. Reference the size and material of the domestic service line between the existing water main and proposed water meter.
- 35. Reference the size, detail number, and sheet location of the backflow preventer details for the domestic and fire system backflow preventers.
- 36. Label the size and material of the fire service line between the water main connection and boundary valve.
- 37. Show the location of the water line adjustment by providing an oval or bubble around the area to be adjusted for storm sewer and/or sanitary sewer crossings.
- 38. A note has been provided indicating a domestic and fire booster <u>may</u> be required. If a booster pump will be installed this needs to be determined prior to receiving a tech-memo.
- 39. Be advised, 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."
- 40. Provide the internal angle at the manhole connection.
- 41. Revise Material Quantities per plan comments.
- 42. Since Retail will be placed in this building a monitoring manhole will be required. Provide a hard copy of the NOI to DPU for review.
- 43. The proposed sanitary sewer lateral to serve the building is referenced as "Private". DPU maintains the portion of the sewer lateral from the main to the ROW line. Once the lateral extends past the ROW line, the lateral falls within building inspection requirements.

### C5.12:

- 44. Change the title of the water line profile from "8" Water Main Profile" to "Existing 12" Water Main Profile".
- 45. Lighten the existing 12" pipe on the 8" Water Main Profile and darken the proposed water line adjustment.
- 46. Update the 8" Water Main Profile per the plan comments.
- 47. The 12" water main is maintained by the Henrico County DPU and not the City of Richmond. Update the reference of the approximate location of ex. 12" DI water main per the City of Richmond GIS Data on the 8" Water Main Profile.
- 48. If the sanitary sewer lateral will cross over top of the water main, change the material of the sewer lateral from PVC to DI.
- 49. Provide the manhole labels that is referenced on the profile on the utility plan sheet.
- 50. Provide a .10 drop across the MH-EX2 for the proposed sewer connection.
- 51. Show the drop connection at the manhole per D-130.
- 52. Is there sufficient room to install the drop connection between the water main and manhole connection?
- 53. The 12" water main adjustment is proposed so why is it referenced as "existing" on the sanitary sewer connection profile.
- 54. A sequence of construction will be required for water line adjustment in the existing water main.
- 55. The proposed sanitary sewer service may conflict with the existing gas main. DPU recommends field verifying the location of the gas line.
- 56. DPU recommends removing the additional manhole and extend a straight pipe to the proposed building. Relocate the storm structure 10' from the sewer lateral and determine if the storm pipe can be installed approximately 12" above the top of the sewer lateral to avoid a drop connection, water line adjustment, a gas crossing conflict, and water main shutdown.
- 57. Be advised, the minimum slope on an 8" sanitary sewer line is .04% per DPU Standards.

- 58. Provide the following details on the plans:
  - Monitoring Manhole (D-125)
  - Drop Connection (D-130)
  - Backflow Preventer with Domestic Meter- In Building (D-405)
  - Typical In-Building Installation of Reduced Pressure Detector Assembly (D-435)
  - Tapping Sleeve & Valve (D-470)
  - System Boundary Valve (D-476)
  - Electronic Marker Placement Detail (D-740 and D-750)

# C5.30:

- 59. Replace the 1 ½" and 2" meter setting with the corporation stop detail (D-534) with the 1 ½" and 2" meter setting with tapped plug detail (D-535).
- 60. Will irrigation be installed with this project?

## C5.32:

- 61. Does the Fire Flow Estimate Form include the proposed garage to be installed in the building?
- 62. Provide a hard copy of the Engineering Report, NOI, and Project Summary Report and remove from the construction plans.
- 63. The Maximum Demand appears to be incorrect. The Maximum Demand should be approximately 180 gpm.
- 64. With a Maximum Demand of approximately 180 gpm, a dual 2" water meter is required for this project? Review and revise as necessary.

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,

ARP

Alice Thompson Utilities Engineer

cc: Andrew Basham, SR Dabney Road, LLC

Spy Rock Real Estate Group

be: Ralph Claytor Megan Gallagher

Daniel Ivy

Marchelle Sossong

Planner, Mike Kennedy

ANT/vr