

May 27, 2022

Anne W. Tignor, PE  
Youngblood, Tyler & Associates  
7309 Hanover Green Drive  
P.O. Box 517  
Mechanicsville, VA 23111

**RE: Sadler Square Section 1**  
**LOCATION: 11572 Edinburgh Rd**  
**FILE NO. 5587 POD NO. 2022-00247**

Dear Ms. Tignor:

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 May 6, 2022 and received by DPU on May 12, 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. 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 or prior to subdivision plat approval. 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 Project Summary Report and resubmit per the following:
  - Use a peak factor of 1.75 for the maximum day demand.
  - Revise water pipe quantities in accordance with all utility plan changes.
  - Include the total number of fire hydrants.
3. Revise the water and sewer design calculations to include offsite sewer flow and modify lowest residual pressure value based on any model changes.
4. Overall water and sewer utility plans were submitted separately to DPU and are under review. These plans shall be approved by DPU prior to approval of the Section 1 utility plans.

**Cover sheet**

5. Revise zip code for owner/developer to 22182.

6. P.E. Seal with original signature and date is required on the Cover Sheet and was provided. A facsimile of seal, signature and date is acceptable on all other sheets and was missing.
7. Revise water and sewer material quantities in accordance with all comments.

**Sheet 5(Layout and Utility Plan)**

8. Include additional waterline within Glasgow Road, in accordance with the Overall Water plan that was also submitted, so that water system is looped with this project and there will be a backup feed direction for water supply per DPU Standards 4.2.05. Although the submitted calculations show only a bare minimum of 20 psi being maintained during fire flow and maximum day demand, the DPU system model did not (920 gpm with fire flow only). Also, there is an excessive length of minimum sized line (approximately 2150 feet>600 maximum).
9. Provide a utility easement from sewer within Palmer Mill Court to serve lots 57 and 58 within McDonald's Small Farms subdivision.
10. At water tie-in within Belfast Road, install a tee and two valves in lieu of the tapping sleeve and valve since this line can be isolated without service disruption and the flushing hydrant nearby is being removed.
11. Add two additional hydrants with one at the P.T. near lot 9 block A and the other one at the end of waterline within Edinburgh Road to replace the flushing hydrant.
12. Provide an exception request to the Director of Public Utilities for where hydrants are less than 50 feet from buildings and include the justification for the exception.
13. Label existing manhole within Belfast Road, where tie in will occur, with GIS ID (SMH012219).
14. Add the following note, "Connections to existing manholes without stubs or bricked-up openings shall be the equal of either Kor-N-Seal w/stainless steel expander ring or Press-Seal w/nylon expander sleeve installed by core drilling manhole and in strict accordance with manufacturer's specifications."
15. Reference county water and sewer book sheets on utility sheet.
16. Provide a vandal proof frame and cover for manhole 2 since located outside of the paved road.
17. Adjust waterline alignment near sewer manhole 9 to follow closer to the curb and gutter and be at least 10 feet edge to edge from the sewer main and manhole.
18. Revise note 10 to include DPU Standard 4.2.02E as another reference (water system).
19. List county monumentation that was used for survey on the plans.

**Sheets 7-9(Profiles)**

20. Show matching crowns with sewer main out for lateral invert elevations at all manholes.
21. There is a hydraulic jump condition at manhole 1 since the sewer flow from manholes 5 to 1 is supercritical (>1.50%) and the flow from manholes 1 to SMH012219 is subcritical at less than 1.50% and there is a 90-degree angle in flow direction. We recommend that you adjust the slope downstream of manhole 1 to at least 1.50% or more to resolve this condition.
22. Show all laterals including lot and block numbers that are deeper than 12 feet.

23. Profile all sanitary lateral crossings under proposed storm sewer where separation is 1 foot or less. Provide 1 foot separation if at all possible.
24. Show existing storm pipe crossing of the proposed sanitary sewer from manholes 1 to Ex.

**Sheet 21(notes and details)**

25. Include standard detail for flushing hydrants.

**LS1-LS2(Landscape and Lighting)**

26. Resolve conflicts with lighting poles and utilities near lots 3 and 20 of block B and lot 13 of Block A so that light poles are outside utility easements and 10 feet away from utilities.

If you have any questions concerning the above noted comments or the plans, please contact me at 501-4501.

Sincerely,

*John L. Clark*

John L. Clark, PE  
Utilities Engineer

cc: Steve Aylor, MS Richmond Investor, LLC

bc: Ralph Claytor, Marchelle Sossong  
Megan Gallagher, Daniel Ivy  
Christina Goggin, Planning

JLC/tt