

April 18, 2022

Brain C. Mitchell, PE  
Townes Site Engineering  
1 Park West Circle, Suite 108  
Midlothian, VA 23114

**RE: Gateway II**  
**1648 N. Parham Rd.**  
**FILE NO. 1695; POD2021-00119**

Dear Mr. Mitchell:

We have reviewed the construction plans submitted to the Planning Department on March 31, 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 have not been executed.

**Sheet C-1 (Cover Sheet):**

1. Provide an original signature on the P.E. seal on the cover sheet. All other sheets can have facsimile signatures.
2. Revise water and sewer material quantities in accordance with all comments.
3. Clarify the square footage of the main building and clubhouse in the site data as it doesn't match with what is shown in Fire Flow Estimate Form. Are all the floors have the same amount of square footage or the first floor of retail has less floor footage? Please send me a copy of the architectural plan.

**Sheet C-2 (Existing Conditions):**

4. Provide a copy of the existing 16' easement with the DB 39 PG 56 for the existing waterline.
5. Include CSB or GIS information for all existing manholes by including top elevations and inverts on the sanitary sewer main. Update where necessary.
6. Review the field survey elevations and datum for the existing sanitary sewer. Why is it several feet different than GIS elevations? How did you establish the benchmarks?

**Sheet C-3 (Demolition Plan):**

7. All comments on existing conditions sheet also apply to this sheet.
8. Clearly label on the plan whether you are going to remove the existing water and sanitary sewer or abandon it in place. Show the limit of the abandonment or removal. Cross out existing utilities that is going to be removed to distinguish it from others.
9. Existing water and sanitary sewer service must be abandoned at the main or removed.
10. Identify the manhole that is going to be abandoned. Label to abandon it per detail D-170. If it is to be remove/demolish then label it.
11. Identify any valve, fire hydrant, and meter that needed to be remove.
12. Label to remove existing fire hydrant and valve on Parham Road. See sheet C-16 for new location of proposed fire hydrant. Avoid using the word move or relocate since fire hydrant can not be reuse.
13. Show the location where you are planning to cut and plug/cap the existing water and sanitary sewer mains and service connections.
14. Remove hatching and replace it with stippling.

**Sheet C-16 (Utility Plan):**

15. All comments on existing conditions sheet also apply to this sheet.
16. Update sheet C-4 to match with the utility plan.
17. Show the location of the waterline adjustment in the water main by providing a bubble around the adjustment area near station 10+25 of waterline B.
18. Label to install new hydrant at new location on Parham Road. Avoid using the word move or relocate since fire hydrant can not be reuse.
19. Relocate dedicate fire hydrant and FDC to be at least 50 feet from the building.
20. Provide domestic backflow device on the plan with proper detail number, size included within its callout.
21. Provide additional easement around the proposed fire hydrant. Provide 5 feet of easement on the back of the hydrant and 8 feet on each side.
22. The number of required fire hydrant and the location of fire hydrant is under review with the Fire Department.
23. Label the bend at station 10+30 of water line D.
24. Delete note 2 since you are proposed a corporation stop instead of the tee and valve for the water service connection.

**Sheet C-16 (Utility Details):**

25. Request an updated water system flow request with the fire flow of 3500 gpm.
26. Delete any nonapplicable details such as details D-500, D-530 and D-535.
27. Add the appropriate backflow preventer detail for the domestic water service line.

**Sheet C-21 & C-22 (Profiles):**

28. Identify all the crossing pipes in the profile such as the waterline at station 10+30 in storm profile from E5 to 60" bypass.
29. Correct the label of storm sewer profile title from E5 to 60" bypass instead of from E3 to 60" bypass.
30. Correct the label of storm sewer profile title from E4 to 60" bypass instead of from E5 to 60" bypass.
31. Provide a table to address the lowering of existing manhole E16 to finished grade. This table should include:
  - a. Existing top elevation.
  - b. Proposed top elevation.
  - c. Amount of modification required, i.e. vertical feet of raising or lowering.
  - d. Proposed method of adjusting each manhole.
32. Profile the proposed sanitary sewer from Manhole 5 to manhole 2.
33. Label the sanitary sewer profile title from MH E2-MH04 instead of MH E01-MH04.
34. Update the label of the waterline fixtures in water line B and water D to match with the plan view.

**Sheet C-25 (Fire and Water Calculations):**

35. Submit an updated Project Summary Report form and the Engineering Report on a separate cover. Update the flow on these two forms base on the correct square footage of the building. Update the fire flow and the minimum pressure. Provide retail flow, and DI pipe in the project summary report. Clarify how did you calculated peak hour demand and maximum hour demand.
36. Complete the Domestic Meter Sizing Form for the retail building.


37. Revise the fixture value of the washing machine in the Domestic Meter Sizing Form for the apartments and update the total combined fixture value and maximum demand.
38. Revise the ground floor area in the Fire Flow Estimate Form to match with what is shown in the site data on the cover sheet and update the calculation. Are all the floors have the same amount of square footage or the first floor of retail has less floor footage? Please send me a copy of the architectural plan.
39. The required fire flow of 1500 gpm for the clubhouse will required 2 fire hydrants instead of 1. Revise accordingly.

**General:**

40. 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 been submitted and is being reviewed. If the Information Sheet is incomplete, we will send you comments for correction and resubmittal. If the Information Sheet is complete, an Agreement will be forwarded to the Owner for signature.
41. Update the Fire and Water calculation on sheet C-26 with the correct required fire flow.
42. Resolve overlapping texts on the plan to prevent any conflict. Update where necessary.

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

Sincerely



Bob Dao  
Utilities Engineer

cc: Steven T. Alexander, Gateway Associates of Richmond, LLC

bc: Ralph Claytor  
Marchelle Sossong  
Rick Schwartz, DPW  
Daniel Ivy; Megan Gallagher  
Christina Goggin, Planning

BQD/vr

**REVISED CONSTRUCTION PLANS REQUIRED**