

May 22, 2020

Josh Krolewski, P.E.
The Bay Companies
8500 Bell Creek Road
Mechanicsville, VA 23116

RE: Townes at Oakley's Bluff, Section 3
LOCATION: 4201 Oakleys Lane
FILE NO: 5084 POD NO. 2020-00227

Dear Mr. Krolewski:

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 08, 2020 and received by DPU on May 12, 2020.

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 the Project Summary Report (Form F-10) per the following and resubmit:
 - Use a peak factor of 1.75 for maximum day demand.
 - Revise the waterline pipe quantities to match the water material quantities on the plans.
 - Revise the maximum day+ fire flow by using the maximum day demand instead of the peak hour demand.
3. Revise the water system design within the water and sewer design calculations form as follows:
 - Revise the maximum day+ fire flow by using the maximum day demand instead of the peak hour demand.

C1 (Cover Sheet)

4. Revise water and sewer material quantities in accordance with all comments and per the following:
 - Include the length of the 4" PVC waterline.
 - Include the length of the 6" DI fire hydrant lead.
 - Coordinate 8" PVC water main length with the utility plans.
 - Revise the 8"x4" tees to 4"x4".

- Revise 4"x4" reducers to 8"x4".
- Include the number of single and dual sanitary sewer laterals.

C8-C9 (Layout & Utility Plan (West & East))

5. Provide 4' of utility easement to either side of the proposed water meters.
6. Use a dash line for the existing waterlines where tie-in will occur on sheets C8 and C9.
7. Revise the size of the existing flushing hydrants, that will be removed to tie into the existing 8" waterline, to 2" instead of 8".
8. Label to replace the existing vandal proof / watertight frame & cover with a standard frame and cover for existing manhole 9 and the existing manhole in front of block E.
9. Provide a 16' wide utility easement with 5' of easement from the back of the hydrant for the proposed fire hydrant within Rosedown Lane.
10. Show the existing dual sewer lateral for lots 3 and 4, block E connected to the existing manhole and not the main per section 1 as-built drawings.
11. The two valves at each of the 8"x8" tees need to be on each line side of each tee and not the branch side.
12. Add the following note: "Electronic markers (ball type) shall be installed on all water mains and sewer gravity mains in accordance with specification 2.2.05N and 4.2.02E of the 2014 DPU Design and Construction Standards."
13. Locate the proposed dual sewer lateral for lots 1 and 2 of block H to connect directly to the main at a 90-degree instead of the manhole.
14. Provide a note on plans stating "HOA will own and maintain all sanitary sewer laterals from the main to the building". Please make sure that the same statement is on the approved plat and in the HOA covenants.
15. Provide a utility profile for the proposed 8" waterlines within Rosedown Lane and Lenten Rose Lane.
16. Eliminate the plug symbol near the boundary line of sections 2 and 1 within Lenten Rose Lane since this was removed with section 2 project.
17. Provide 5' of utility easement from the back of the proposed fire hydrant between blocks L and J.
18. Adjust the lead line for the 5/8" meter callout note near lot 4, block I to correctly point to the meter.
19. Provide a table to address the raising and lowering of existing manholes SMH 010871 and SMH 009629 to finished grade. This table should include:
 - Existing top elevation.
 - Proposed top elevation.
 - Amount of modification required, i.e. vertical feet of raising or lowering.
 - Proposed method of adjusting each manhole.
 - Phase of construction each manhole modification is to be done.
20. Add the following note, "A maximum of 12" adjustment may be done utilizing pre-cast riser rings to raise frame and cover. For additional height adjustment, pre-cast manhole sections must be installed. Decreasing manhole depth must be done by removal/replacement of pre-cast manhole sections."
21. Label the 4" plugs at the end of the proposed waterline.
22. Provide an invert in elevation for the proposed laterals that match crowns with the 8" sanitary sewer main at all manholes.
23. Add a note that all previously installed laterals are to be repaired or replaced if damaged per DPU inspector.

24. Provide a typical note for the distance from the water line to the face of the curb on each utility sheet.
25. Show elevations for the benchmarks on C8 and C9.

C12 (Profiles):

26. The following comments pertain to the Rosedown Place profile:
 - Show all laterals connected at the manholes with invert information that matches crowns with sewer main invert out.
 - Revise the size of the proposed plugs to 4" instead of 6" at the end of the waterline.
 - Profile lateral for lot 1, block F crossing the 4" waterline and verify that there is at least 6" of separation.
 - Adjust the top of Manhole 9 to match proposed finished grade.
 - Show all sewer laterals deeper than 12 feet on the profile and label with lot numbers.

C16-17 (Utility Details):

27. Add DPU detail D-190 for dual sewer lateral connection.

If you have any questions concerning the above noted comments or the plans, please contact me at 501-4501 or Ireini Botros at 501-4512.

Sincerely,

John L. Clark

John Clark, P.E.
Utilities Engineer

cc: Doug Godsey, Mankin Properties, LLC

bc: R. Claytor
S. Jackson, DPW
M. Gallagher
Aimee Crady, Planning

INB/tt