Joseph Faudale, Jr. PE The Bay Companies, INC 8500 Bell Creek Road Mechanicsville, VA 23116

> RE: ReTreat at One Section 6 LOCATION: 8733 Telegraph Road FILE NO: POD2023-00108

Dear Mr. Faudale:

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 March 9, 2023, and received by DPU on March 15, 2023.

DPU recommends approval of these plans by the **Director of Planning**.

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

General:

- 1. Owner to submit executed Utility Agreements prior to approval of building permits or prior to the utility pre-construction meeting and authorization to proceed with utility construction by DPU. 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 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. If an additional section for Retreat at One beyond section 6 is planned (e.g., properties on Telegraph Road to the south), provide an updated Overall Water and Sewer plan to include all flows as well as those from the proposed Brook Road Knights Inn development across from Magellan Parkway.
- 3. Revise the Project Summary Report per the following:
 - Update water main quantities to match those revised on the cover sheet material quantities per subsequent comments.
 - Designate "n/a" for maximum lengths of 3" and 2" pipe.

C1 Cover Sheet

- 4. Revise water and sewer material quantities in accordance with all comments and per the following:
 - There should be one vandalproof/watertight manhole for manhole 63 if it is kept.
 - Review the LF of DI (6" and 8") as the values seem a little high as it relates to the number of hydrants leads and vertical water line adjustments.
 - Coordinate the number of 8"x6" tees, 6" GV&B, and fire hydrants with what is on the plan view. It appears that all increase by one (1).

C2 Existing Conditions and Demolition Plan

- 5. Based on the note appearing in the lower left corner, it is assumed that a separate disconnection utility plan will be submitted for the existing homes. Include within this note that this is also for the water services.
- 6. Revise notes for removal of water meters to state that DPU staff will remove these meters.
- 7. Include the actual meter register number and size for each of these meters within the callouts.
- 8. Add a note that the accounts for existing services will be finalized and billing will stop only after proper abandonment of the services has been verified by DPU.
- 9. There is a note within Section 1 that states "plug and abandon in place". Please review for relevancy and clarify.

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10. Label existing fire hydrant on Telegraph Road to the south of future section 6 as 333SW003H.

C4 Section 6 Overall Plan:

- 11. Add the following prominent note: Proposed offsite sewer improvements within Brook Road as part of the plans titled "Retreat at One Offsite Sewer" shall be completed and accepted by DPU prior to any certificates of occupancy for this development.
- 12. In following up our recent discussion, the sewer lines from manholes 16 thru 19 were installed using 8" pipe at minimum slope and will have very little remaining capacity after section 6 flows are added to these lines. In order to serve additional properties to the south, this sewer as well as the next couple of downstream runs of 8" would need to be upsized to at least 10". Otherwise, the sewer within Telegraph Road will need to be used by these properties but would need to be lowered in order to pick up the entirety of these other parcels within the sewer shed while maximizing the available depth of cover. Unless there is a definite plan to upsize the downstream sewer as part of a future section of Retreat at One or some other development, the short run of sewer from manholes 63 to 64 can be omitted, but leave manhole 64 and the proposed utility easement in place for any potential future tie-in. The 8" water main stub can remain but must be changed to DIP.
- 13. Show an interconnection between the existing 6" water main and proposed 8" water main extension within Telegraph Road. Install a tee and a valve on the south side. The portion of 6" main north of this point is to be abandoned.

C8 Layout & Utility Plan

- 14. If the sewer run from manholes 63 to 64 was to be kept, manhole 63 would need to be vandalproof/watertight with a reference to detail D-160 (not traffic rated). Also, the portion of main from MH63-64 would need to be DI.
- 15. There does not appear to be a need for manhole 66. Revise sewer slope accordingly between manholes 65 and 67.
- 16. Show an open cut along Telegraph Road for the extension of the waterline.
- 17. Provide a matchline between sheets C8 and C12 for the waterline extension within Telegraph Road.
- 18. Revise easements around proposed fire hydrants and leads to provide 8' easement width in all directions including the back of the hydrant. There needs to be 8' clearance all around with trees at least 10 feet away.
- 19. Provide at least 5' of separation from the sewer laterals connection point serving Block SS Lot 4 and Block TT lots 1 and 2.
- 20. Shift the water service connection point serving block UU Lot 4 to the north to be outside of the waterline adjustment.
- 21. Fire hydrant connections cannot be within the vertical section of the waterline adjustments. Relocate the fire hydrant near the corner of Nobile Road and Burden Drive further east to the point of tangent at the curb return and adjust profile accordingly.
- 22. All existing and proposed 12" valves are to be gate valves. Revise callouts and material quantities accordingly.

C12 Telegraph Road Improvements and Utility/Profiles

- 23. Show the open cut needed for the extension of the 12" waterline.
- 24. Provide at least 4 feet of cover over the extended 12" water main.
- 25. Specify separation (OD-OD) of storm sewer from existing sanitary sewer near station 17+00. If there is less than 6", provide support piers under the proposed storm sewer on each side of the crossing.
- 26. Vertical adjustment of the existing 6" waterline to accommodate the storm sewer crossing will not be needed if this portion of waterline is abandoned per previous comment. However, there should be a note to remove portions of the abandoned 6" waterline as needed for storm sewer installation.

C13-C14 Road, Utility, and Storm Sewer Profiles

- 27. Show and label all sanitary laterals deeper than 12 feet on the sewer profiles.
- 28. Regarding Burden Drive Profile:

- Show the missing 8" DI sanitary sewer near STA10+00.
- Show the 6" 11.25° bend closer to the 6"x6" tee to match the plan view. Isolate the callout for this bend from the other callouts.
- Show interconnection between proposed 8" and existing 6" waterlines.
- Sewer crossing under storm structure 620 has less than 1 foot of cover. Provide DIP for this sewer run.
- 29. Regarding Nobel Road Profile:
 - Correct the sewer slope from manholes 88-87 and revise the inverts a manhole 87 to match the elevations shown.
- 30. If applicable, relabel MH63 as a vandalproof/watertight manhole and reference appropriate detail.

C33-34 Utility Details

- 31. Add details D-410(irrigation service BFP) and D-160(if applicable).
- 32. 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."

L01 Conceptual Landscape Plan

33. Move all trees to be at least 10 feet from fire hydrants (e.g., see across from block NN lot 6).

If you have any questions concerning the above noted comments or the plans, please contact me at 501-4501 or Kiara Korkuc at 501-4993 for any necessary clarifications.

Sincerely,

John L. Clark

John Clark, PE Utilities Engineer

cc: Daniel Caskie – The Bay Companies

Jeremy Swink – Stanley Martin Homes LLC

bc: Marchelle Sossong

Daniel Ivy Kiara Korkuc

Christina Goggin, Planning

JLC/vr