

August 2, 2021

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

RE: Landmark Section 2
LOCATION: 310 Clayman Road
FILE NO. 5427, POD NO. 2021-00290

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 July 8, 2021 and received by DPU on July 16, 2021.

□ 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. As has been previously communicated, the Overall Water and Sewer Utility Plan shall be approved prior to the approval of the first section of the Landmark Development. Currently, this plan has been submitted by Balzer & Associates and reviewed once with comments dated June 2, 2021.
3. A sewer shed map and sewer pipe analysis is required to be submitted as part of the Overall Utility Plan for determining sewer design and alignment.
4. Since Landmark Section 2 is dependent on Section 1, which has not been submitted yet but will be shortly from what we have been told, the subsequent review comments are based on limited information and may change in coordination with these future plans. Also, please note that Section 1 and the offsite Trunk Sewer Utility Plan must be approved prior to Section 2. The same applies for sequence of DPU construction acceptance.
5. The Engineering Report submitted with this project is missing the offsite sewer flows. Please include and revise sewer calculations accordingly.

6. The water model for Landmark Section 2 is missing water main within Dry Bridge Road. As previously commented on the Overall Utility Plan comments, this main is to be 12" DIP. Revise the model and all other dependent documents accordingly.
7. Revise and resubmit Project Summary Report based on updated water model results and any other water design changes per DPU comments.
8. A certificate to construct (CTC) from DEQ may be required for this project if average design flows exceed 40,000 gpd.

Cover Sheet

9. Revise water and sewer material quantities in accordance with all subsequent comments and per the following:
 - List 8" x 8" crosses instead of 8" x 8" tees.
 - Revise number of 8" gate valves and boxes.
 - Revise length of 16" DI sanitary sewer main.
 - Revise number of standard and watertight frame and covers to match the plans.

C2(Overall)

10. This sheet must be coordinated with the Overall Water and Sewer Plan and with section 1 and section 2 utility plan comments.

C7(Layout & Utility Plan)

11. The waterline size within Turtle Parkway will need to be determined and confirmed as part of the overall water utility plan requirements and the phasing of this development. We are currently evaluating the information we have received so far and will provide a response soon.
12. Sewer line sizes shall be confirmed in accordance with the overall sewer utility plan requirements and calculations. Some of the proposed sewer main appears to be significantly and unnecessarily oversized and needs verification.
13. Provide a note on plans stating, "HOA will own and maintain all sanitary sewer laterals from the main to the building". Engineer shall make sure that the same statement is made on the approved plat and in the HOA covenants.
14. Provide missing elevations for benchmark locations.
15. Coordinate labeling of manhole 212 in plan view with manhole P13 in profile.
16. Provide 5-6 feet O.D. to O.D. horizontally between water main and storm piping structures.
17. Provide 10 feet horizontal separation between water and sewer mains from manholes 202 to 201.
18. Provide a valve for the hydrant between blocks B and C.
19. Provide a least 5 feet edge to edge separation between light poles and water meter boxes as shown on the utility plan and lighting plan.
20. Label waterline adjustment where crossing storm structure 201 and storm piping from structures 203 to 204.
21. Locate valve for waterline stub at the cross with other valves.
22. Note that a flushing hydrant is not necessary for all valved short stub water mains since no water services are on these mains.

23. Provide a utility easement for the portion of sewer main toward manhole 201 that is outside of section 2 limits.
24. Provide M.J. restraint for all water main bends where there is less than 10 feet separation from storm sewer and the storm sewer is at or below the depth of the water main.
25. Provide M.J. restraint for the water main bend that is over sanitary sewer main near manhole 207.
26. Provide an exception request to the DPU Director for the fire hydrant less than 50 feet from units 138 and 139 in blocks B and C.
27. Label watertight/vandalproof frame and covers for each applicable individual manhole on sheets C7 and C8.
28. Add the following note, "Where possible in unpaved areas, manhole castings shall be approximately 12 inches above final grade using appropriate covers (i.e. - vandalproof, watertight)."
29. Reference county monumentation used for site survey.

C8(Turtle Parkway Grading and Utility Plan)

30. The scale on this drawing does not match the scaled dimensions on this drawing.
31. Locate manhole label for the existing manhole to be adjacent it.
32. Show location of existing waterline from section 1 where tie-in will occur and add appropriate notes.
33. Locate valve for waterline stub at the cross with other valves.
34. Note that a flushing hydrant is not necessary for all valved short stub water mains since no water services are on these mains.
35. On this sheet, provide a minimum of 3 GIS northing/easting reference points.

C10-C11(Turtle Parkway profile)

36. Storm pipe structures 500 and 230/231 are not shown in the profile. Please show and coordinate with water and sewer utility design.
37. Show existing plug from section 1 in the plan view of sheet C8 with removal and connection notes.
38. For all sanitary sewer profiles on sheets C10-C12, provide separate sewer stationing starting at the most downstream connection and proceeding upgradient with equalities at each junction manhole. Minimize stationing changes by using the longest chain of sewer line runs in the same stationing sequence. Locate sewer stationing away from road stationing to provide clarity.

C12(Palm Court and Sanitary Sewer profiles)

39. Show M.J. restraint length for all previously mentioned bends in the plan view comments.
40. Coordinate lot numbers for sanitary laterals with the lot numbers shown on the plan view.
41. Coordinate labeling of manhole P13 with the plan view labeling.
42. Provide 0.1-foot invert elevation drop minimum across all manholes. Continue to match crowns between dissimilar pipe sizes at manholes.
43. Adjust labeled sewer design information for run from manholes 206-207 to be in line with this pipe or provide a lead pointing to this pipe information.
44. Show manhole 208 top elevation 1-foot minimum above grade.

C23(Utility Details)

45. Show ISO building separation wall note on the cover sheet as well.

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 L. Clark, PE
Utilities Engineer

cc: Doug Godsey, Godsey Properties Inc.
bc: Ralph Claytor
Marchelle Sossong
Megan Gallagher
Daniel Ivy
Christina Goggin, Planning

JLC/vr