

## SEPARATE RESPONSES TO ENGINEERING COMMENTS:

1. The water system calculations need to be revised and resubmitted. The analyzed system needs to include the proposed offsite water mains up to the tie-in points on the town's system. The pressures at the tie-in should be those from the flow test provided by the town. The analysis needs to identify locations where booster pumps and pressure reducing valves will be needed.

**Corrected Water System Calculations attached**

2. Provide a hydraulic analysis of the reclaimed system.

**See attached**

3. What is the water source for the reclaimed system? Sheets C1 & C2 call out an irrigation pump system at the end of the cul-de-sac. Sheet C8 calls out a supply well in Tract H. Provide details & specifications for the supply source.

**The water source for the Reclaimed is the 5 acre pond. There is a backup well for use when the pond levels are low. See details on sheet C17**

4. The lift station needs to meet the town's standard detail and construction specifications manual. The pumps need to be Hydromatic with recessed impellers and capable of passing 3" solids. The station needs to be equipped with a SCADA system and back-up power generation.

**City Standard detail has been provided on sheet C19**

5. The project will need to coordinate with the power company to bring 3 phase power to the lift station.

**Acknowledged**

6. Based on the design calculations for the tie-in lift station (Venezia LS#2), the excess capacity for additional inflow is 122 GPM (326 GPM pump capacity less 204 GPM peak inflow). This project is proposing a discharge into the station of 150 GPM. This lift station needs to be field tested for its current operating condition and to determine if sufficient excess capacity exists, or if pump upgrades are needed.

**Field testing will be provided prior to submittal of the off-site plans.**

7. Provide a detail of the force main tie into the existing lift station. Locate and identify all existing influent lines (sizes & inverts) to avoid conflicts.

**As requested, This will be provided on the off-site construction plans to be submitted separately**

8. The project will need to conduct a title search to verify the status of Greenbriar Avenue and/or secure an easement from the Lake County School Board for the force main going from Lakeshore Dr. to the lift station.

**ROW dedication & title work is in process with Lake County School Board. The School Board has agreed to grant the easement to Howey In The Hills who will then in turn grant the use of the easement to Developer. However, the School Board is STILL waiting for a response from Howey In The Hills to begin the process.**



9. The offsite improvements (utilities & sidewalk) should be prepared as a drawing set separate from the subdivision. Provide a profile view of the off-site utilities. The routes for the offsite utilities need to be field surveyed including underground (horizontal) utility locates.

**As requested, This will be provided on the off-site construction plans to be submitted separately**

10. How will drainage be handled at the connection to N. Buckhill? Provide an intersection improvement plan that addresses stormwater, utilities, and traffic control.

**Culvert has been provided, see Sheet 6**

11. Coordinate with Lake County regarding the traffic control condition at the intersection of N. Buckhill and the northern entrance. The town's recommendation is an all-way stop control.

**A three-way stop has been proposed. See Sheet 4**

12. The project may need to dedicate additional right-of-way along N. Buckhill Road to meet minimum county standards. Show on the layout plan the required right-of-way line. The sidewalk needs to be within the right-of-way, the landscape buffer behind it.

**No additional ROW is required**

13. The plans need to incorporate the town's standard details.

**See Sheets C-15 through C-19**

14. The minimum potable water main size is 6".

**References to 4" water main have been corrected. See Sheets C-14 & PP-14**

15. Add a note that gate valves are not to be placed in curb lines or in curb ramps. Adjust the depiction of the valves on the plans to show them outside of curbs and curb ramps.

**Revised per comment. Note has been added to Utility sheets**

16. The irrigation mainline plan from the landscape architect is inconsistent with the engineering plans. The reclaimed water main needs to be a single line within the right-of-way on the opposite side of the potable water main (not two parallel lines behind the right-of-way in an easement on the lots).

**Irrigation plans have been corrected.**

17. What is the purpose of the driveway at the end of the cul-de-sac near Lot S1? If it is to provide access to the dock, marina & boardwalk, then some vehicle parking should be provided.

**The driveway is to provide access to the ownership of the outparcel.**



18. Identify on the plans the locations where sidewalks are to be constructed with the subdivision construction.

**Location of sidewalks to be constructed with the subdivision have been hatched. Sidewalks to be constructed with lots are show in dashed lines.**

19. Where sidewalks are being constructed, the area between the back of curb and the sidewalk will be fully sodded.

**See note #5 on detail (1/C12)**

20. Provide ADA curb ramps & crosswalks on all legs of intersections. Crosswalks are to be per FDOT Design Standards 2017-18 Index 17346 Sheet 12 of 17. The crosswalks at stop conditions should be standard crosswalks. The crosswalks not at a stop condition should be special emphasis. All curb ramps are to be installed with the subdivision construction.

**All proposed curbs at corners are valley gutters. No ADA ramps are required. Crosswalk types have been revised per comment.**

21. Why is there a pond liner in the wet detention pond?

**Pond Liner has been provided because a portion of the pond volume is being used as a source for the reclaimed water.**

22. Call out manhole (storm & sanitary) rims & inverts on the road profiles. Call out the reclaimed lines in the plan view.

**Inverts and rims are called out. The Reclaimed lines will match the depth of the water mains so they have been omitted for clarity. A note to this effect has been added to the plan profile sheets.**

23. Provide a vehicle turning evaluation to ensure that turned-away vehicles (cars & delivery trucks) can successfully navigate the route.

**Turning analysis has been attached to this response.**

24. Provide dimensions & striping for the parking area near Lot 1.

**See Tract E site plan on Sheet C-12**

25. Some back-to-back lots have up to an 18' Finish Floor Elevation difference. It is unlikely that the proposed rear lot swales will be effective and will probably be a maintenance problem. Provide full block cross-sections (road CL to road CL) demonstrating how the lots and building pads will be graded to provide maintenance-free drainage.

**Retaining walls may be required on some lots to deal with the grade change. Lots that may require retaining walls have been identified on the grading plan. The walls will be constructed with the houses.**

26. The grading plan needs to show on each lot the area that will be graded level for the building pads, including decks and swimming pools. The plan needs to address how steep slopes and grade changes will be managed.

**See section 1/C7**



27. Practical maintenance access needs to be provided for Swales 1-4.

**See 20' wide drainage easements that have been provided to the streets.**

28. Provide an exhibit for review that shows the trees to be protected and removed imposed over the proposed grading plan.

**See Sheet TM1**