

## <u>Town Engineer</u> Carl J. Balduf, P.E., P.L.S.

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Town of Walpole Commonwealth of M**assachusells** 

- TO: Patrick Deschenes, Director of Community and Economic Development
- FROM: Carl J. Balduf & Chris Johnson, Town Engineer & Asst. Town Engineer
- RE: The Residences At Darwin Commons (End Darwin Lane) Comprehensive Permit Review #1
- DATE: October 6, 2021

This office has received the following;

- A six sheet 24"X36" plan set titled "The Residences At Darwin Common In Walpole, MA" Dated August 13, 2021prepared by Glossa Engineering, Inc.
- Application For Comprehensive Permit Under M.G.L C. 40B The Residences Of Darwin Commons prepared by Wall Street Development dated August 30, 2021.

We have reviewed the Site Plan and Traffic Assessment and offer the following:

## Plan Review

Cover Sheet 1 of 6

1. In addition to the zoning schedule showing the required zoning parameters also provide columns for existing and proposed.

Existing Conditions Plan Sheet 2 of 6

2. Show the overflow riprap spillway and drainage system in the 40' Access & Utility Easement behind house #31 Darwin Lane.

Site Plan Sheet 3 of 6

- 3. There is no marked visitor parking anywhere on site.
- 4. There are no ADA sidewalks or associated ramps within the site (as recommended by the Traffic assessment in Appendix O of the application.
- 5. Show the speed bump recommended in the above mentioned Traffic Assessment.

- 6. Show a dedicated parking location for drop off/delivery vehicles
- 7. Show a group mailbox location.

Grading and Drainage Plan Sheet 3 of 6

- 8. Spot Grades should be shown at the driveway apron on Darwin Lane to ensure water does not enter the property from the Public Way.
- 9. Spot grades should be shown behind units 6-9. Currently this area is flat.
- 10. The lack of drainage behind units 24-28 is concerning. There is one catch basin connected to an underground infiltration with no outlet. If the infiltration system fills up there will be flooding behind these units. Storm water from the Darwin Lane drainage system and house #31 will contribute to the potential flooding in this area. There is potential to collect water here to an elevation of 219.5. The design should provide an overflow for the infiltration system and accommodate a separate pass through fort the discharge from the basin at 31 Darwin Lane.
- 11. The slope at the side of unit 6 is graded with a three to one slope directly at the foundation. This is not recommended as all buildings should have positive grading away from the building.
- 12. The underground infiltration systems should be shown on a separate profile or detail sheet.
- 13. All three underground infiltration systems should have overflow outlets. Surcharge of these systems may result in failure of the systems, flooding, and property damage.
- 14. A profile of the driveway entering the site should be included. The driveway slope should not exceed 7%.
- 15. Add guard rail on the top of the retaining wall adjacent to unit 28.
- 16. Show the proposed locations of the recharge systems from the roof gutters.
- 17. No stormwater report has been provided. Provide report once drainage test pits have been performed.

Utilities Sheet 5 of 6

- 18. Show a Fire Service entering each building.
- 19. Provide a central single duplex sewer lift station with backup generator, alarms, pump connections and storage sufficient to allow response should back up power not respond immediately or other failures occur. The design should follow TR-16 standards and allow easy access for service and be in a location where snow removal is easily accomplished. The intent is to minimize the potential for a sewer overflow in such close proximity to Town Zone 1.
- 20. Provide a looped water main.

## Details Sheet 6 of 6

- 21. Add a Guard Rail Detail.
- 22. Add a Water Service and Fire Service Detail.

## General

- 23. Test pits shall be excavated where the underground infiltration is proposed. Town of Walpole Engineering Department shall witness all of these excavations.
- 24. Street Opening, Bonding, and Trench Permits shall be obtained from Town of Walpole Engineering Department before any excavation work begins.
- 25. A Drain Layers License from the Water and Sewer Department is required to install water, sewer, and drain lines.
- 26. Any disturbance of the pavement in Darwin Lane for utility connections, curb installation or other items will require a curb to curb mill and overlay of the entire area disturbed in the culdesac.

- 27. In Section 12, (Water Resource Protection Overlay District) of the Town of Walpole Zoning Bylaw, reference is made to the construction of single family homes as an allowed use. Multifamily use is not an allowed use in this area. This should be included in the waiver section.
- 28. An estimate of the cut and fill quantities should be provided.
- 29. Remove the reference to "Diamond Hill Estates" from section L of the Application for Comprehensive Permit.
- 30. Please submit a Landscaping Plan, Site Lighting Plan, and (Fire) Truck Turning Plan for review.
- 31. Submit a site maintenance plan that provides robust requirements for operating the stormwater system, the sewer pump station, the site driveways and walkway (with focus on the de-icing program and lawn maintenance because of proximity to well Zone 1). Note; conventional de-icing agents and fertilizer likely not allowed.

Sewer & Water Commission & Superintendent DPW Director Conservation Agent Fles

K: Siteplans/darwin commons/residences at darwin commons comments 1