



Sustainability Commission

Letter to Zoning Board of Appeals regarding the Heritage Landing (Cow Pond Brook Road) Comprehensive Permit Application

Date: September 20, 2023

To: Groton Zoning Board of Appeals

Dear ZBA members,

We are writing to voice our concerns and recommendations regarding the Heritage Landing Comprehensive Permit Application now before you.

While we realize that there is no definitive plan available yet, there are specific concerns regarding issues pertaining to sustainability and wildlife that we want to call to your and the Applicant's attention. We hope that as part of the resolution process of their application, assuming it goes forward, that the Applicant will adjust some of their plans accordingly.

We begin with lighting since the Applicant has provided a preliminary lighting plan. Our first observation is that the specifics of the lighting plan in the Applicant's documentation is nearly unreadable. Our second observation is that the lighting in their plan appears to be excessive for a rural setting, especially for the size of the development and its location within Town.

We are aware that there has already been an appeal from an abutter (the MIT Observatory) to adjust the lighting to protect the night sky for their celestial observations. We strongly support their request vis-à-vis lighting adjustments. We also note that – also as the MIT team has already brought forward – excessive lighting is also extremely harmful to patterns of pollinators and endangered species in the ecosystem of this property, such as bees, moths, fireflies, and turtles, among others.

The plan includes 28 pole-mounted streetlamps for a very small, lightly trafficked development. It also includes a lighted sign at the entrance off Cow Pond Brook Road to the common driveway for the development. Both seem excessive and unnecessary, regardless of what type of lighting the Applicant plans to implement on them. The proposed development will be on a short, low-speed and lightly traveled cul-de-sac, which is itself located off a dead-end street with extremely light traffic on it after nightfall.

In addition, there are several bollard lamps called out in the Applicant's lighting plan that appear to serve no security purpose whatsoever. Given the location in Town and the proximity to an extremely light-sensitive long-standing abutter such as the Observatory, those bollards should be removed without impacting visibility or security in the development.

Specifically, we request that the Applicant reduce the lighting on the site to the **minimum** required for safety and abide by Dark Sky requirements. Our requested adjustments for lighting are consistent with the Town's and national Dark Sky requirements. It should include the following:

- The 28 pole mounted lamps called for in the plan should be removed and replaced with a single pole mounted lamp at the intersection of the development driveway and Cow Pond Brook Road. And that pole mounted lamp should be fully shielded to cutoff illumination outside 50-foot diameter of pole location.

- All external lamps should be color temperature less than 3000K.
- Any security lamps, including in the rear of the property, should be fully shielded to limit illumination to each exclusive use space, not broadcast floodlighting.
- Use motion sensors and auto-dimming on all security lights to further minimize light pollution and duration.
- Use auto-dimming on the pole mounted lamp so that past peak time (e.g., after 11pm and until one hour prior to sunrise) the lamp operates at 50% or lower intensity.
- Remove the development entry sign lamps, as mentioned previously.
- Remove all bollard lamps, as mentioned previously.

About the remainder of our concerns, we are limited by the limited amount of information yet available from the Applicant regarding their definitive plan. However, we would urge that the ZBA ask for and that the Applicant provide the following in that plan:

- The use of all-electric heat pump technology for heating and cooling to move away from dependence on fossil fuels. This is especially important – and symbolic – given that this development would literally abut the Town’s solar photovoltaic farm.
- Keep the amount of impervious surface to a minimum to reduce stormwater runoff and aid in natural aquifer recharge. The common driveway for a development of this size does not need to be any wider than that of a “lane” and not a full 24-foot width.
- Include the deployment of electrical hook-ups sufficient for residents to be able to deploy EV car chargers in the garages of the development to facilitate sustainable transition in automobiles.
- Minimize the elimination of trees, particularly larger trees in the development area. Given the previous history as a quarry, there is already a dearth of mature growth within the property’s footprint; so please limit any further reduction.
- Make use of only native plants and grasses, with careful attention paid to excluding any invasive species, per the Commonwealth’s invasive species list. The Town’s Invasive Species Committee would be glad to share a list of plantings that would be appropriate to the site and those to be avoided.
- Consider the use of either hybrid electric/heat pump or electric/solar hot water heating for each of the housing units.

We are happy to discuss any or all of these requests and issues with members of the ZBA or representative of the Applicant.

Respectfully submitted,

Phil Francisco, Groton Sustainability Commission Chair