Bart McDonough Chair, Durham Conservation Commission

Michael Behrendt Durham Town Planner

May 24, 2020

Re: Gerrish Drive Subdivision

Dear Bart & Michael,

Thank you for inviting my comments on the proposed Gerrish Drive Subdivision. This is a complex project that cuts across a number of issues related to environmental protection, economic development, private property rights, and municipal planning and the associated policies and regulations.

I'll start by suggesting that I appreciate the spirit of this proposal. Durham needs to accommodate new housing options in response to regional demand and to counteract the ageing trend in the state by attracting new residents to generate economic activity and contribute to the tax base. That will necessitate some higher density developments with shared outdoor space to minimize the overall environmental impacts.

At the same time, Durham has declared that we are still committed to the Paris Climate Agreement. This declaration was accompanied by a plan focused on energy use, an important and essential aspect of efforts by the Town to meet the objectives of the agreement. However, not long after the Town made that declaration, our net greenhouse gas emission almost certainly when up solely due to the acreage of mature forest cleared for the Riverwoods facility. An inventory of Durham's carbon stores with a plan to preserve and increase those must be an equally important component of the overall strategy. I raise this point here because during the May 8 site walk I was struck by the number of trees that are expected to be felled in this rather beautiful wooded site, and the carbon sequestration that will be lost as a result (among other lost ecosystem services).

To be clear, I do not think that it is appropriate or fair to attempt to meet an incomplete mandate such as the Durham's Paris commitment in the midst of an active development proposal. But the expected impacts of this proposal underscore the need for us to address sequestration alongside emissions in the Town's Climate Action Plan. As noted in the preface to the Paris resolution, the Town can influence net emissions by the community through zoning regulations and code enforcement. I raise this issue here because this proposal is exactly the type of opportunity for climate-responsive development that our municipal policies and regulations should be working to influence.

That said, I would be interested in hearing from the applicants whether a more wooded grove or glade rather than a shared lawn could be a workable alternative that would reduce the amount of lost carbon sequestration while still providing shared outdoor space. The understory of the site is rather sparse, and I could envision clearing woody debris, eaves, and shrubs to create room to recreate, picnic, and relax among many or even most of the existing trees. Indeed, a more wooded common space might be more attractive to many prospective residents for the shade, birdlife, and other advantages that come with trees. Regardless of how the site plan is modified, some of the biggest concerns about this site to me are related to the broader landscape context. The site sits at the junction of an area of primary conservation land (wetlands) to the south and woodland to the north. Undoubtedly, many species of wildlife move among the wetlands and woodlands for water, foraging or hunting, and breeding. The roads, dwellings, and common space, however configured, will create a significant barrier to those movements. For many species, this will not be an impermeable barrier, but it will hinder movements among these habitats nonetheless.

It is likely that the roads and dwellings will divert wildlife traffic to the wetland gully on the Gerrish/Ambler side of the site. Local residents report that this is already an important corridor for wildlife movement, as well as for water drainage and provision of wetland habitat. This means that the proposed road from Gerrish Drive into the development represents perhaps the most significant environmental impact, especially if existing importance as wetland habitat and a corridor for movement becomes even greater as a result of other changes in the local landscape due to the project. Therefore, during the site walk, I asked whether the applicants had considered a bridge rather than culvert across the wetland gully, which would mean much more limited impact on the existing habitat, wildlife corridor, and water flow functions of the site.

The response was that it would be cost-prohibitive, on the order of 50-60% more than the proposed culvert, if my recollection is correct. I think this question needs to be explored more deeply. An increase of 50-60% may or may not be significant depending upon the cost of the culvert/bridge relative to the overall project costs. If the culvert is, e.g., 10% of the total cost and a bridge would take the cost up to 15%, that is seemingly a modest increase for the benefits gained (wildlife corridor, water flow, wetland habitat). But if the culvert is, e.g., 50% of the total project cost and this would take it 75%, that might be a different story. I do not have a good sense of that break-down, but to me it is an important question that needs to be addressed before this alternative is dismissed entirely.

Also, the ecological benefit of a bridge relative to a culvert might make the project eligible for habitat conservation and connectivity grants. I would like to see the applicants provide more detailed cost information, even if only in relative terms, so that the Town can better gauge whether a bridge truly is cost-prohibitive and whether the additional costs can be offset.

There are, of course, many other issues raised by this proposal, but I will limit my comments to these for now. Thank you again for the opportunity to comment, and please do not hesitate to contact me with any questions you might have.

Sincerely,

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