

5 Denbow Rd.  
Durham, NH 03824  
December 10, 2020

Dear Durham Planning Board:

I am writing to provide comment concerning the proposed Church Hill Parking Lot project, which is currently being reviewed.

I have a BS and MS in Forestry, and since 1988 I have worked for State and Federal government agencies in the specialty area of Urban and Community Forestry. This involves assisting communities in planting, maintaining and protecting trees, woodlands and associated resources in developing areas, for the many benefits they provide. Since the early 1990's all 50 U.S. State Forestry Agencies and the U.S. Forest Service have recognized the value of urban forests and have established Urban Forestry Programs with the intent of better conserving and managing this resource. As our communities grow (80% of the U.S. population now lives in urban areas) managing this resource has become a priority.

Community trees and small wooded areas may not seem significant to some, but these trees cover a significant portion of a community. Forest canopy covers 30% of the typical U.S. community and this metric can be used as one measure of community health. There has been much research in recent years to document the value of this tree cover to the community.

Trees and wooded areas can;

- Help reduce the volume of storm water & improve water quality.
- Improve air quality, store carbon and combat climate change.
- Conserve energy in buildings – Reduce air conditioning by 56% & heating costs by up to 25%.
- Increase property values by as much as 10%.
- Provide a buffer to increase privacy and reduce noise.
- Improve wildlife habitat.
- Tree lined business areas result in more frequent and longer shopping trips and shoppers spend more for parking and goods.

Durham continues to grow at a rapid pace, and canopy cover is decreasing. Each year construction activities and new development removes more trees or small wooded parcels. It happens in small amounts, but adds up. What will Durham look like in 30 years?

The proposed parking area on Church Hill will result in the loss of another small wooded area. This is in a prominent location. As one of the few remaining wooded sites in the core downtown area, it provides a valuable aesthetic buffer between businesses and properties, and it provides watershed protection on a steep slope with drainage moving down towards College Brook. There are some assessment tools available that would enable us to estimate some of the environmental service values mentioned above. I think those values would be significant.

I participated in the two site walks done on the proposed parking lot site and have the following comments, questions and observations;

I believe the forestry report that was included with the Mill Plaza proposal, focused on the northwest portion of this woodlot. The parking lot site is proposed for the southeast portion of the woodlot, which

is somewhat different in makeup. This is a nice small woodlot for an urban area. Trees are larger than in the northwest. There are less invasive species present than are found in many Durham forests. Ash is the most common species, but there is a mix of other species. As was mentioned in the other report Emerald Ash Borer (EAB) and diseases that affect ash are present in NH and there has been some decline of ash in this woodlot over the past few years. That will have a negative impact here if it continues, but I feel there is adequate presence of other species in the understory and overstory which will fill in the open space as the ash decline.

Though small, this woodlot does have some benefit to wildlife and especially to birds. It currently links to the wooded area south of College Brook and then out to Oyster River and Mill Pond. Maintaining these linkages to different types of vegetation is beneficial in creating good wildlife habitat.

The woodlot has significant value in reducing stormwater volume and in delaying the peak flow. Trees help reduce storm water flow in 3 ways; 1) water is stored on the leaf and tree surfaces, tree roots help water percolate into the top 2 – 3 feet of soil and 3) trees have a wicking effect – through transpiration they pull water out of the soil, through the tree and it is evaporated out through the leaves. This keeps the top few feet of soil from becoming saturated and enables it to absorb more rainwater.

This parcel is on a significant slope and will require huge amounts of earth moving and land scaping for construction. It is hard to know all the impacts that could have. One I am concerned about is the effect on the viewshed. I recall when the Lodges were built 5 or so years ago, people were disturbed at how this changed the view of the landscape, driving into Town from the southwest. I feel people may be similarly shocked by what this view looks like if the Mill Plaza and Churchill proposals are built and most of this woodlot is removed. It would be helpful if the planning board could request conceptual drawings of what completed construction will look like from different viewpoints.

My understanding from the site walk is that if the project is approved, tall retaining wall will be built at the southeast end of this woodlot, and a wooded buffer (100 feet wide?) will be left below that. Trees and other landscaping will be placed there to help buffer the wall. I have some concerns about the growth of landscape planting here because they will be in the shade of trees in the buffer, and the tall wall. Trees/plants may survive, but I would expect tree growth to be slow.

I am not clear on how much, if any wooded buffer is left on the other two sides. I feel some buffer should be required there as well for aesthetics and to maintain privacy for adjacent landowners.

My understanding from the site walk is that the water collected on the parking lot will go through a filtering system, be discharged into a stone or gravel bed at the bottom of the large retaining wall and then flow through/into the wooded buffer area at the southeast end. I don't have much technical knowledge on this, but it seems like it could be a large volume of water that is discharged at that point, and I wonder about the impact on the vegetation there and where this water drains to past this point?

Has there been any professional outside comment on how effective the engineered filtering system will be as far as removing salt and chemicals from storm water that comes off the parking area? Also, the impact of heating, melting snow and draining that water into the wooded area in the wintertime would be worth exploring.

Thank you for the opportunity to comment. I know that some development in town a good thing, if it is well planned and community wellbeing is protected, but there are always trade-offs to these projects. I

appreciate the planning board's efforts in the past to consider our community trees and forests and I hope you give this strong consideration in this case.

If desired, I would be glad to provide more information or assistance related to managing and protecting this and other community forest resources in Town.

Sincerely,

John Parry