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**Admitted in MA and NH*

January 9, 2015

Lisa Davis Lewis
Carlisle Board of Appeals
Town Hall
66 Westford Street
Carlisle, MA 01741

Re: "The Birches"
100 Long Ridge Road application for Comprehensive Permit
Hydrogeologic Study

Dear Ms. Lewis and Members of the Board of Appeals:

Pursuant to our discuss with the Zoning Board at the last public hearing for the above referenced Project, my client has considered the Board's request that certain hydrogeological studies be completed relative to the proposed septic and well systems. I am writing to inform the Board that my client will agree to certain testing and also agrees to grant the Board an extension of time in which to act as detailed below.

Please recall that my client had previously withdrawn his originally proposed testing protocol based on the fact that the Project had been redesigned to eliminate all well related waivers and all but one septic related waiver. Whereas, both the septic and well systems will meet all state environmental regulations, it is our position that any public health and safety concerns are therefore addressed. Therefore, granting the waiver is justified. Further, while there is still some disagreement as to whether in fact any additional waivers are required, because we meet all state regulations, the granting of these additional waivers, is also justified.

Nevertheless my client hereby agrees to perform the testing and analysis as outlined in Exhibit A attached hereto and incorporated by reference. As you will see my client is proposing to conduct additional field studies in addition to those previously completed, including but not limited to soil testing, permeability testing, contour analysis and ground water analysis. Subsequently, ground water mounding analysis and a "plume" analysis can be completed.

With regard to an extension of time for the Board to act, my client will agree to provide the Board a 60 day extension. We believe this is justified in providing the Board more time to review the proposed analyses. Furthermore, it is our position that because my client has previously granted the Board an extension, and is again providing an extension, he has shown his willingness and reasonableness in allowing the Board additional time to consider his application. There is no reason to believe he will not continue to do so if further extension is warranted. However, for the record, my client will not agree that he has unduly delayed the process or that he has been untimely in providing legally required information as has been inferred by certain members of the Board.

For the Board's edification, my client has already begun the field studies and will move forward with all do speed in obtaining the proposed analyses. Results will be provided to the Board when it is available. It is anticipated that the work will be completed and provided to the Board no later than late February.

Thank you for your time and consideration. Please contact the undersigned with any comments or questions you might have. We look forward to your continued consideration of this Project at the January 28, 2015 meeting.

Sincerely,
Deschenes & Farrell, P.C.

Douglas C. Deschenes

EXHIBIT A

The Birches – 100 Long Ridge Road, Carlisle, MA 1-9-2015

Hydrogeologic Study Testing and Analysis

I. Data Generation and Testing:

- Well Drilling:
  Install a series of groundwater monitoring wells using a hollow stem auger drilling rig. Soil samples will be taken every 5 feet.
- Water Level Gauging:
  Install a series of wooden stakes in the nearby wetlands on subject property to act as water gauges.
- Surface Contours:
  Use GIS mapping and other mapping with site information to develop a surface contour map and locate existing wells within 500 feet of septic systems.
- Soils:
  Obtain and analyze past soil testing on site for septic systems and for sampling for this study done by NGI in November, 2014. Amend the soils information with the soil sampling done above.
- Pump Testing:
  Perform a pump test on each monitoring well pair by pumping water in one well and measuring the water level drawdown in the adjacent well or perform a rising head/falling head permeability and/or hydraulic loading test.

II. Modeling and Analysis:

- Develop a pre and post development groundwater contour map.
- Determine groundwater flow direction and hydraulic gradients across the site and surrounding areas.
- Determine saturated thickness at the site.
- Determine aquifer permeability.
- Perform a mass-balance nitrogen loading model to estimate the post development nitrogen concentration in the groundwater with Title 5 determined loading rates for various scenarios.
- Develop an analytical solute transport model to estimate nitrate plume extent and magnitude.
- Determine the groundwater mound under each of three septic systems using Title 5 determined loading rates and in-situ data developed per above and assuming pressure distributed flow to the leaching area.