TOWN OF TUFTONBORO
PLANNING BOARD
October 17, 2019
MINUTES

Members Present: Matt Young, Chairman, Tony Triolo, Vice-Chairman, Bill Marcussen, Selectmen's Representative, Kate Nesbit, Gary Qua, Members.

Member Absent: John Cameron, Laureen Hadley, Members.

Staff Present: Lee Ann Hendrickson, Administrative Secretary.

Other Present: Justin Pasay, DTC, Planning Board Counsel.

Chairman Young opened the meeting at 7:00 PM at the Town House

I. **Public Comment**
None.

II. **Consideration of Minutes**
September 19, 2019
October 3, 2019

It was moved by Gary Qua and seconded by Tony Triolo to table the September 19, 2019 and October 3, 2019 Tuftonboro Planning Board minutes. All members voted in favor. The motion passed.

III. **Scheduled Appointments/Public Hearings**

David Winchester, Donald Winchester and John Winchester and C&R NH Realty Trust, LLC
Tax Map #40-2-1
10-Lot Subdivision
Public Hearing continued from October 3, 2019

Matt Young informed the applicant that the Board is short one member this evening and asked the applicant if such increases the burden upon them.

Following a brief private discussion with his clients (the applicants), Andy Sullivan requested a continuance to the next meeting.

Following review of upcoming meeting dates and member availability on those dates, Matt Young informed the applicant that the Board would be short a member on November 7th as well.

Following a brief private discussion (the applicants), Andy Sullivan stated they would proceed this evening.

Matt Young explained to the public that when the Board is down a member the burden is increased on the applicant which is why the Board has asked them if they'd prefer a continuance. He stated that because the Board may not have a full Board at future meetings that the applicant has decided to continue with the application this evening.

Matt Young stated this is our fifth meeting and the Board has taken in quite a bit of information; hearing from engineers, wetlands scientists, many people in the area for and/or against the application. He stated it has been a very long process however, this is how zoning works and this is where it comes to fruition as to

end product. He stated the application was deemed a regional impact and at the last meeting the third party engineer's review was received by the Board as well as the letter from the Lake Region Planning Commission. He stated the Town's engineer found items that needed to be improved upon; noting most of the items were technical in nature and also noted that the Board received the applicant's responses to such. He stated the Board has received from Horizons Engineering their review of the updated information, noting the changes appear to be correct. He stated Horizons Engineering wanted to be clear that they did not analyze all of the calculations but, that they looked at the plans themselves. He read Horizons Engineering's email regarding such, dated October 17, 2019. He requested the applicant present the changes to the application.

Scott Frankiewicz, NH Land Use Consultants, stated this is our fifth meeting and reviewed those meeting dates and sequence of events that have occurred at those meetings. He stated there were three lots that Horizons Engineering expressed concern about; noting the lots have been enlarged. He stated one of their concerns were the depth of one of the lots; noting Horizons Engineering was measuring east to west and he had measured north to south which the lot had met the depth requirements for north to south. He noted that now the lot meets the depth requirements for both north to south and east to west regardless of how the frontage is reviewed. He stated that even though the State of NH allows you to overlap a well radius into undeveloped land, the Town of Tuftonboro likes to see the well radius completely on the lot therefore, the well radius was moved to keep in within the lot area of that lot. He stated there were a lot of little comments about frontage being short on one of the lots by two feet. He noted the way Tuftonboro measures the frontage by not just the frontage of the lake but also fifty foot cord lengths; noting such was revised by two feet and the line was shifted up. He stated there were some dimensional/text errors that were corrected. He stated they went in depth in their review regarding the slope and lot sizing analysis and corrected all the lots to meet all State regulations. He stated he met with Eric Thomas, NHDES, for a pre-application discussion and received a letter from the Fire Chief noting no issues, see attached. Relative to parking, he stated they received a letter from the Road Agent noting two options that would address the parking concerns; noting the Road Agent recommended one of the options.

Andy Sullivan stated one way to look at the parking is to review the Town's definition of dwelling (Section 1.1.19) and reviewed said definition. He noted the existing cottage on the island has no sanitation therefore, it is not considered a dwelling and therefore parking is not required for that cottage. He stated the zoning ordinance states each residential dwelling has to have two parking spaces however, there are no residential buildings on the subdivision as it exists today therefore, and there is no need for parking. He stated the Town's overnight parking permit for the 19-Mile Bay parking lot states that each property owner is entitled to up to four permits. He stated Section 6.2.F states two parking spaces per dwelling unit; noting it does not say whether the parking is required to be 24 hours or year round. He stated that by the Town's own procedures and protocol, there are already four spaces available. He stated the parking itself on that 19-Mile Bay parking area states that it is intended for the temporary parking that is first come, first serve with no limitation for the owners of island property in Tuftonboro. He stated the ordinance doesn't state where the parking has to be and by the Town's own definition, there is not a dwelling however, nonetheless there is already more than two parking spaces available to the owner of that island both between the overnight parking permit and parking lot. He stated the applicant has an agreement with Don McWhirter that they can park on Don McWhirter's property. He stated people who come from the south are going to take the quickest route which means parking on the other side of the bay which doesn't equate necessarily that someone with a house on Farm Island is going to park this area and may park elsewhere. He stated parking is not required to be in Tuftonboro. He stated there is plenty of parking for this proposal even though it may not be built out for years to come.

Randy Owen stated he and his family have owned property on Cow Island, Chase Island, Rattlesnake Island and a boat slip at Pier 19. He stated there are currently 500 island houses in the Town of Tuftonboro and the capacity of the parking spaces would allow fifty feet therefore, currently we are providing one space for every ten houses. He stated that when he owned property on Rattlesnake Island, he paid dues for available parking provided to island owners. He provided examples of his experience relative to lake access in proximity to the location of one's permanent residence. He stated he has also begun looking at various pieces of land to do something similar to what Rattlesnake has done and provide parking for the owners; noting they are actively looking for land.

Matt Young asked Mr. Owen if he would have an objection to a condition of approval that would require certification of two parking spaces prior to the issuance of a building permit other than the Town's parking lot.

Randy Owen stated he would have no objection.

Andy Sullivan requested clarification and asked if such could include a lease in addition to fee ownership.

Matt Young stated the Board is going to evaluate what the historic practice has been and provide an answer.

Andy Sullivan stated he still believes his client meets the parking requirement through the overnight parking permit and access to that lot.

Ron Albert, Winnishores Road, asked if it would be two parking spaces approved per lot.

Matt Young stated it would be exactly as the zoning in written. He read Section 6.1.F. as follows; *"On and after the effective date of this Ordinance, all new structures and developments as well as additions to or changes in use in existing structures shall be provided with off-Street parking spaces in accordance with the following specifications in Section 6.2. (f) Residential dwellings Two (2) spaces per Dwelling Unit."*

Ron Albert asked if the applicant is saying that there will be two parking spaces per lot approved.

He stated the applicant, prior to the issuance of a building permit, would have to prove two parking spaces per residential dwelling.

Member of the public asked if a boat slip would qualify as a parking space and asked whether the requirement of a boat slip should be included as a condition.

Matt Young stated the zoning doesn't require a boat slip rather, the zoning requires two off-street parking spaces and doesn't specify that it has to be on the property. He stated the Board does not have the authority to waive zoning rather, the Board reads and interprets the zoning.

Bob McWhirter asked why such has to be a condition if it is in the zoning.

Matt Young stated the Board is going to discuss what has historically been done with regard to access and parking.

Bob McWhirter stated it looks like the Board is trying to compel the applicant to do something that is required.

Matt Young stated he is simply reading the zoning exactly how it is written and if the applicant agree with the zoning, the applicant can seek relief from it in the form of a variance. He stated the zoning is clear and states two parking spaces are required per dwelling and not two parking spaces per lot.

Bob McWhirter stated the applicant's attorney and the Town's own regulations prove there are at least four spaces available.

Referencing the comments made by Attorney Sullivan regarding what defines a dwelling unit with regard to having sanitary facilities and noting there are none on the island, Ron Albert stated there is a three-holer outhouse. He questioned whether such would grandfather the dwelling.

Matt Young read the following definition of dwelling; *"1.1.19 Dwelling Unit: One (1) or more rooms, including cooking facilities in a dwelling structure with accompanying sanitary facilities, designed as a unit for occupancy*

by not more than one (1) Family for living and sleeping purposes." He stated the Board will have to discuss whether the definition of a dwelling has been met. He stated traditionally, the way the Board would look at it is that the applicant has stated the cottage is from 1905 which would pre-date zoning in 1972. He stated however, by doing a subdivision a new lot is being created therefore, if it is found to be a dwelling unit then the applicant would be required to show proof of two parking spaces.

Randy Owen stated the outhouse is located three houses away/500 feet from the house.

Matt Johnson, Devine Millimet, representing Camp Belknap, stated Attorney Sullivan provided several ways to get around the zoning requirements for parking however, ultimately it is a Zoning Board decision. He stated Attorney Sullivan is asking this Board to make an interpretation of the Zoning Ordinance and he doesn't feel the Board can do such. He stated he believes the applicant has to have a decision from the Zoning Board and a variance. He stated the parking regulation talks about development as a whole; noting the Board has to not only look at today but, into the future and the fact that there will be houses on the ten lots. He stated the parking needs to be addressed now because the current owner may not be the owner of the lot in the future. He stated the issue should be addressed as part of a deed restriction and requested the Board to consider such so that it is not dependent upon the continued ownership by the applicant. He stated the Board discussed indemnification and maintenance agreements for the utilities and questioned the status of such. He stated there will be a significant amount of trenching and construction work needed to be done by the applicant. He stated Mr. Starble, the abutter whom the power line currently runs through, should be entitled to that same protection and the Board should consider whether those indemnification and maintenance obligations should be deed restrictions and run with the land. He stated he isn't aware of any construction estimates provided by the applicant; noting a maintenance bond needs to be discussed and a surety in place for 115% of the construction value. He stated this is a brand new issue of an island subdivision therefore it is incumbent upon the Board to be very thoughtful and methodical and take its time; noting there are a bunch of unanswered questions, including utilities. He stated the Board needs to make there is enough financial surety in place. He stated for all those reasons, he feels it is premature for the Board to consider the application.

Andy Sullivan stated there are no proposed improvements therefore, there is no need for a security.

Matt Young replied power.

Andy Sullivan stated the Town is not providing the power.

Matt Young stated the applicants are providing such.

Andy Sullivan stated the applicants are paying for such and will have an agreement with the power company; noting it is not an improvement that needs to be bonded.

Matt Young stated traditionally the way the Town of Tuftonboro has treated improvements for a subdivision is that it can be a surety/bonding through a letter of credit or the applicant can complete the installation of the improvements, have such inspected and signed off upon prior to final approval.

With regard to limitations within the deed, Andy Sullivan stated the law is in place therefore there is no need for a deed restriction. He stated the law may change and then there is a question as to what applies; noting the restriction is cumbersome and unnecessary and does not need to be addressed at this time.

Referencing the parking lot at 19-Mile Bay, Andy Shagoury, Police Chief and resident, stated the parking lot is not exclusive to island residents and the Town has issued permits for residents that are not owners of lakefront property. He stated the last couple of years with the Pier 19 store being closed there has been space in the lot however, when the store was open the lot was packed. He noted the parking in the lot is first come, first serve, as needed, as available.

Matt Young stated the Board is contemplating a condition that the applicant prove they have two parking spaces other than the Town's parking lot prior to the issuance of a building permit. He stated that guests could use the parking lot in its traditional manner and in relation to the rules and regulations at that time.

Bob McWhirter stated the Board cannot change zoning and what it seems the Board is contemplating is putting a condition on the applicants that they have to prove that they have two parking spots. He stated there is available parking to those 500 island property owners. He stated the Board is talking about changing the rules for this applicant that the Board has never required of anyone else. He asked the Board if they have required such of anyone else.

Matt Young replied no.

Bob McWhirter stated he doesn't see how the Board can attempt to compel the applicants to force someone to do something that is already legal and appropriate.

Ron Albert objected to Mr. McWhirter's comment. He stated the fact that the Town has not adhered to zoning in the past does not exempt this new application. He stated the other subdivisions may not have been challenged and slipped right through. He stated this is a special situation and adherence to the ordinance is critical issue and shouldn't be exempted because it's been ignored in the past.

Matt Young stated the Board is adhering to the ordinance exactly as it is written.

Maureen Forbes stated that if a subdivision was being done on the main land, parking wouldn't be addressed because no one would have to say the two parking spaces are with the house. She stated it is inherent in the zoning that the normal two spots would be with the house. She stated it is inherent that the parking should go with the lot however, in this case you can't get the car to the lot and that is why you can't say we'll just use the Town's parking spots. She stated those parking spots may not be available in five years.

Matt Young stated nowhere in the Subdivision Regulations does it require two parking spaces rather, it is in the zoning. He stated in any subdivision that has been recorded, the Board has never required anyone to prove they have two parking spaces. He stated that occurs at the time the owner goes to build a residence and the Codes Officer enforces such. He stated the parking spaces, as they are written exactly, do not say they have to be on the same lot rather, it states two off-street parking spaces. He stated what further complicates matters is that island lots are also exempt under RSA 674:41 from road frontage.

Don McWhirter asked if some of the Board members previously testified that the Town's parking lot is not maxed out.

Matt Young stated from what he saw the lot doesn't look very full.

Don McWhirter asked if the applicant would be allowed to use the available space.

Matt Young stated the applicant would be able to use the available space within the limitations of the laws, rules and regulations of the Town at the time.

Karen Simus, Haverhill Acres, stated before Pier 19 closed down the public parking lot was full. She stated once the property is sold she is sure the parking lot will be full again.

Ron Albert stated he supports Ms. Simus' comments; he stated there are Google map photos that show the parking lot completely filled up. He stated the pictures could be produced if the Board requests such.

Matt Young stated that overall everyone has to keep in mind there are +/- 500 island homes and the Town's parking lot is the only parking lot for those homes.

Ron Albert stated such is a good reason to deny the application.

Matt Young stated the Board is reviewing ten out of 500 homes. He stated when you look at the proportion of 500 homes and ten proportionate cars in the lot, it is a very small amount of increase in his opinion.

Ron Albert stated he disagrees.

Matt Johnson submitted Conditions for Approval of Subdivision Plan, see attached.

Matt Young read such.

Tony Triolo stated he thinks the Board has heard it all in the last five meetings; every question, every subject, everything has been brought up.

Bob McWhirter stated that regardless of how this works out for the applicant, the Board should keep the conditions on file and throw them right back at Camp Belknap as they continue to build out their property not only on the main land but on the island.

Matt Young stated the document would be available in the public record and accessible to anyone.

Justin Pasay, Planning Board Counsel, Donahue, Tucker & Ciandella, PLLC, stated that with regard to the allegation that the Planning Board does not have the authority to make an interpretation of zoning, he respectfully disagrees. He stated the statute 676:5, III specifically states that such is part of the pervue of the Planning Board and its common sense that it's a necessary process that this Planning Board must undertake. He stated within the specific context of parking, he anticipates the Board will consider all of the arguments that have been brought to the Board over the past five meetings. Relative to parking, he encouraged the Board to read the language of the ordinance and encouraged the Board to discuss and deliberate over the way the Board has historically interpreted the ordinance and applied it to other island subdivisions. He stated the Board should interpret whether the requirement can be met off site. He encouraged the Board to consider testimony from all the parties and consider the context of the permitting schedule and understand that the language on the face of a permit is something that is within the pervue of the Board of Selectmen pursuant to their responsibility to manage real property. He stated the four person requirement is not in the Zoning Ordinance and encouraged the Planning Board to consider the fact that per the testimony before the Board that the parking regulations are not always enforced and subject to change at the discretion of the Board of Selectmen. He stated the Board should consider all of the evidence however, in the context of the parking, the Board should reach an interpretation of whether or not it can be accomplished off site.

Referencing the Conditions for Approval of Subdivision Plan submitted by Matt Johnson, Andy Sullivan noted the following; NHDES will address septic systems (recommended condition #4), recommended condition #3 is done, recommended condition #7 is not applicable, recommended condition #9 will be addressed through shoreland protection, lighting is going to be residential lighting and minimal (recommended condition #10), recommended condition #11 is not applicable, recommended condition #13 will be addressed through shoreland protection and recommended condition #14has been addressed and noted such are already on the plan. He stated nothing will be done without the applicable State permits and local rules and regulations.

Sue Orr, Greenwood Road, expressed concern for parking and asked what is beyond the designated area of the Town's parking lot. She questioned whether the Town could expand the parking area.

Matt Young stated the Town owns the land.

Ron Albert stated the land is under an easement.

Matt Young replied no, it is not.

Kate Nesbit stated there is a portion of the land that is not in an easement.

Susan Orr stated her concern is for the parking along the road.

Matt Young stated what the Board has determined that the reason the trailers are parking along the side of the road is not because there is an unavailable parking but rather, that it is a shorter distance to the boat ramp.

Member of the public stated the area is unsafe and questioned signage.

Bill Marcussen stated perhaps the speed limit should be lowered.

Member of the public stated such would not make a difference.

Bill Marcussen stated the shoulders are plenty wide to adequately support parking.

Member of the public stated a person's speed cannot be controlled however, parking can be controlled.

Bill Marcussen stated speed can be controlled.

Matt Young stated it is a State highway and the sole domain of NHDOT.

Member of the public stated that maybe the issue should be addressed first before approving the application.

Matt Young stated the Planning Board cannot deny an application based on traffic and recommended working with the BOS and NHDOT.

Randy Owen stated those parking on the side of the road are typically not the island residents.

Member of the public stated it has nothing to do with the islands rather, it is a safety issue.

Bob McWhirter stated the parking on the side of the road has nothing to do with the application.

Matt Young agreed that it is outside of the jurisdiction of the Board. He asked, twice, if there is any further public comment. There being no further questions or comments from the public, he requested a motion to close the public hearing.

It was moved by Kate Nesbit and seconded by Tony Triolo to close the public hearing. All members voted in favor. The motion passed.

Matt Young stated the Board needs to evaluate all of the information received from all parties. He noted the Board received feedback from Horizons Engineering regarding miscellaneous plan details and revisions relative to lot lines and dimensions.

Kate Nesbit recommended the Board accept Horizons Engineering's review of the plan.

Gary Qua stated he has studied the plan and read the applicant's corrections; noting it has been discussed at several meetings. He stated he requested the applicant to clean up the plan at the last meeting; noting the applicant did such and is totally acceptable. He stated Scott Frankiewicz provided a 30-page response to Horizons Engineering's review (see attached); noting Horizons Engineering has subsequently reviewed the revised plans.

Matt Young stated the plan meets the subdivision regulations for lot sizes and dimensions and the feedback from Horizons Engineering has been good. He thanked the applicant for providing buffers for loons and making the necessary adjustments. He stated that if the lots are built as they are shown, they will be some of the finest lots on Lake Winnipesaukee.

Tony Triolo agreed with Ms. Nesbit, Mr. Qua and Mr. Young; noting that all the issues from the last meeting have been taken care of. He stated that if the application is approved, it is still subject to State and Federal permits to build a house.

Bill Marcussen stated that when he looks over the number of weeks the Board has considered the application, he noted the application was originally presented as 12 lots and some concerns were brought forth by a surveyor that the proposal didn't meet the requirements. He stated the applicant reconfigured the lots to ten lots and addressed other issues that were brought up (such as compliance with State regulations however, not with Town regulations). He stated he is comfortable with the plan before the Board; noting the subdivision has been reviewed further than most subdivisions. He stated the proposal represents a subdivision that meets the requirements for the Town of Tuftonboro.

Matt Young stated this application is probably the most heavily reviewed thirteen acres in the Town of Tuftonboro. He stated there are approvals that are needed in order to subdivide the land, mainly State shoreland permits and subdivision approval. He stated historically it is not unusual for applications to be granted conditioned upon receipt of permits and asked the Board's opinion relative to such (NHDES Subsurface, Shoreland, Wetlands, and Subdivision permits).

Kate Nesbit stated it is necessary to include a condition relative to receipt of any State and Town permits.

Gary Qua agreed; noting that all the State requirements are applicable and should be included as a condition.

Tony Triolo agreed that the application approval should be conditional upon receipt of State permits.

Bill Marcussen stated it is his recollection that it has been the past practice of the Board to include State Subdivision approval as a condition and not wait to provide approval until after the State provides approval. He stated the Board will not provide final sign off until the permits from the State are received.

Scott Frankiewicz stated there is only one State permit required at this time.

Matt Johnson stated the public session is closed.

Matt Young stated he recalls that all subdivision applications in the Town of Tuftonboro have been subject to State and Federal approvals.

Tony Triolo stated this subdivision shouldn't be treated any differently.

Relative to septic systems, Matt Young stated the approval would be contingent upon receipt of NHDES State septic approval. He stated there was discussion regarding Advanced Enviro or Clean Solutions systems however, noted that NHDES is the sole authority on such. He stated it is his understanding that while the Advanced Enviro systems and Clean Solutions systems have advantages relative to reducing nitrogen, they do not have a large advantage of reducing phosphorous. He noted phosphorous is the key ingredient in the production of algae blooms in Lake Winnipesaukee and the smaller lakes. He stated he thinks it's important for the Board to encourage the applicant to use these more advanced systems however, he also understands that NHDES views subsurface disposal as their sole domain. He stated the Board could run into issues requiring the applicant to use a specific system.

Tony Triolo stated the applicant won't be using a stone and pipe system and the proposed septic systems are probably better than those that are on the waterfront right now.

Gary Qua stated the islands don't have roads and there is much less impervious surface on islands therefore, there is less impact. He stated NHDES manages septic and although he would like to see a higher level achieved, it is the State's domain. He requested the applicant consider the newer types of septic systems.

He stated he doesn't see an issue with the septic systems that will be installed; noting the systems are state of the art and doesn't see a water quality issue.
Matt Young recommended the Board encourage the applicant to use the most advanced system that is available and is reasonable.

Gary Qua agreed.

Matt Young stated what he believes is a bigger issue than the septic itself with regard to point pollution and phosphorous loading is how the entry point is accessed by the barge and construction materials for both the septic and building are moved from the barge to the site. He stated typically the area that is traversed by the machinery is not restored to natural elevations nor is it properly addressed afterwards and what occurs is a depression where the water coming off of the lot settles within the depression. He stated the Town's engineer recommended measures to restore the site to its original natural elevation and the use of wood chips and berming to reduce impact.

Tony Triolo recommended the use of wood chips and requiring the applicant to restore the site to its original condition and elevation prior to construction in order to keep the water quality the same. He recommended such be a condition of approval.

Gary Qua stated Horizons Engineering was very specific regarding the issue and the Board should be in agreement with what was recommended by them.

Bill Marcussen stated he feels the recommendation would fall under what he classifies as Best Management Practices. He stated protecting the soil and restoring the site minimizes the impact to the water quality from runoff. He recommended such be incorporated as a condition.

Tony Triolo stated the Codes Officer will have to oversee such.

Matt Young stated the Codes Officer will have to inspect the site and ensure that the area has been mulched and bermed.

Tony Triolo requested such be includes as part of the condition.

Bill Marcussen stated the Board is speaking specifically to the installation of water bars or other features to prevent runoff.

Matt Young stated a two foot berm was recommended at the entry way, 6 inches minimum of natural mulch preferably found on site and placed on the roadway. Referencing wetlands, he stated he has been to the island twice with the Town's engineer and NH Fish & Game biologist. He stated when a lot has been delineated for wetlands the lot is flagged; noting the determination of wetlands appears to be very conservative. He stated the site was flagged and Tyler Phillips noted a depression that was filled with water and noted that such should be further reviewed. He stated the wetlands scientists debated the issue of the presence of a vernal pool however, noted that such standards are not applied until December. He stated both he and Tyler Phillips saw that the level of water in the depression could not be classified as a vernal pool under today's standards which is what the Board is reviewing. He stated there were only two areas on the island that was designated by the Fish & Game biologist as being suitable for loons; noting the applicant has placed a buffer around one of the sites.

Kate Nesbit stated the Board has to go with what is permissible; noting that whatever differing regulations may be coming into being in December is not what was present at the time reviewed.

Gary Qua stated the Town's engineer, Fish & Game biologist and Matt have reviewed the site in addition to the applicant's wetlands scientist who has signed off and stamped the plan. He stated the water levels were adjusted and corrected; noting he doesn't see an issue with such. He stated a lot of people have looked at it and found that it's ok.

Matt Young stated it is also the historic practice of the Board that once the wetlands scientist places his stamp on the plan that the Board accepts such.

Tony Triolo stated he feels the applicant has addressed the concerns of the Board relative to wetlands and the issue of a vernal pool.

Bill Marcussen stated the issues regarding wetlands and loon setback have been adequately addressed as presented.

Relative to the electric issue, Matt Young stated Planning Board counsel has reviewed the letter provided by NH Electric Co-Op regarding service; noting that it would appear that NH Electric Co-Op owns the line once it is inspected and energized. He stated the NH Electric Co-Op maintains the line and is liable for it. He stated he doesn't think it's out of place to ask for a maintenance agreement on the line alleviating the Town of Tuftonboro of any liability. He stated he feels such is appropriate given the nature of the line being under water and noted it is different than how the Board has historically looked at applications involving utilities in subdivisions. However, he stated the Board hasn't reviewed a large subdivision on an island that is installing a line that is not energized but becoming energized under the water. He stated the Board usually requires a construction observation agreement on any improvements that are going to occur on a property however, in this case the only improvement is the utilities and the inspection is provided by NH Electric Co-Op. He stated he doesn't feel it would be inappropriate to insist that the Codes Officer perform an inspection as well and ensure that proper erosion controls and Best Management Practices have been utilized on the trench where it is dug and include the recommendations for erosion control set forth by Horizons Engineering.

Kate Nesbit agreed that the Codes Officer should inspect the work.

Gary Qua stated the applicant has proved that NH Electric Co-Op owns the line once it is energized. He stated the Board discussed signage between the island and main land however, noted the Board cannot require such. He stated the Co-Op could place a sign on the main land; noting the signs would help a lot.

Matt Young stated it would not be out of place to request the applicant work with the Co-Op with regard to signage.

Bill Marcussen stated to be clear, the underwater crossing is an existing crossing and there hasn't been any discussion regarding changing such. He stated the discussion has been about the shoreline on the island side and underground distribution to each of the lots; noting there has been no discussion regarding change to the existing cable and the capacity of that size line was established early on that it is more than adequate to support the anticipated load. He stated he believes the Co-Op tested the line because it had been out of service for a period of time and was comfortable that it is serviceable as it stands today to be energized. He stated the water crossing piece is existing from the main land to the shoreline of the island.

Matt Young asked if the Board has any feelings regarding requiring a third party construction observation agreement for the power lines themselves. He stated this is the NH Electric Co-Op's domain.

Bill Marcussen stated that having watched the Co-Op with other subdivisions, the line has to be built to their specifications and are involved every step of the way. He stated they have every motivation to ensure that the line is built to their requirements because once it is installed it becomes their property. He stated it seems to him that having a third party observation is frivolous.

Matt Young asked Mr. Marcussen if he has any objections to an inspection by the Codes Officer.

Bill Marcussen replied no.

Matt Young asked if any of the Board members had concerns regarding the concept of a maintenance agreement.

Tony Triolo, Gary Qua and Kate Nesbit replied no.

Referencing parking, Matt Young stated Tuftonboro has more islands than any other towns and doesn't recall the issue of two off-street parking spaces ever coming up. He stated he spoke to the Codes Officer who also doesn't recall such. He stated traditionally the concept of such never has come up. He questioned the historic practice of the Town and how island lots have been treated and found that people have found parking for their island lots where they can which may be at a marina, at a friend's house or where they can tie their boat up and park. He stated for as long as the Town of Tuftonboro has existed that is what has happened; noting it appears to have worked. He read the following excerpt from the Zoning Ordinance; *"On and after the effective date of this Ordinance, all new structures and developments as well as additions to or changes in use in existing structures shall be provided with off-street parking spaces in accordance with the following specifications in Section 6.2.F., residential dwellings; two spaces per dwelling unit."* He stated there are no exclusions noted in the Zoning; noting the Zoning is clear however, the Zoning doesn't specify where the spaces are located.

Tony Triolo stated confirmed it hasn't been required for previous island subdivisions.

Matt Young stated such has been the historic practice but, the Zoning is the zoning and it is written the way it is written. He asked what has been the historic practice for parking and does that practice fulfill the obligation of two parking spaces. He questioned whether a person who has a valet service at a marina or a contract with another marina satisfy the Zoning.

Tony Triolo stated the property owner will have a boat to access the lot therefore, will have to park someplace to get to their boat. He recommended a condition to include proof of two parking spaces regardless of the location of such prior to the issuance of a building permit.

Gary Qua stated there are 500 island properties, two cars for each equates to 1,000 cars. He asked whether 1,000 cars are seen in the Town's parking lot and responded no. He stated people own docks and valet service has become very popular and noted several marinas that offer valet service. He stated Zoning is specific however, it doesn't say that the Town lot has to accommodate those spaces.

Kate Nesbit stated that logically, the Board cannot attach the parking spaces to the Town lot because not even 1/5 of the island property owners could park in that lot.

Matt Young stated the Zoning specifies that a residential dwelling requires two parking spaces. He stated it is important to understand that it relates to a dwelling; noting the Ordinance doesn't require two parking spaces for a lot nor does the Subdivision Regulations require such.

Bill Marcussen noted the parking spaces are tied to a dwelling.

Matt Young agreed; noting such occurs at the time a building permit is applied for with the Codes Officer. He stated it is crucial to provide proof of two parking spaces. He recommended such be a condition of approval due to the number of concerns expressed regarding parking. He stated the applicant needs to make sure they use the lot for island residents in accordance with the laws, rules and regulations that exist at the time.

Bill Marcussen stated he is not aware of any issues with the current parking. He stated it is easy to see the Town lot is not being relied upon by all 500 users in the Town. He stated there is no way that everybody uses the lot all of the time. He stated a portion of that lot cannot be dedicated to specific Town residents rather, it is there as a first come, first serve basis. He stated that if it becomes inadequate then the Town has to look at enlarging it or taking some other approach to deal with it. He stated that with regard to this subdivision and the impact of such, the Board doesn't want to tie specific residents to a different right of use as any other island resident.

Matt Young stated that if the lot owner is proving they have off-site parking then the use they would have of the Town lot would be typical of every other island property owner.
Tony Triolo stated he cannot see the property owners on Farm Island using the parking lot at 19-Mile Bay unless they have a condominium slip. He stated they will not be trailering their boat.

Matt Young stated the parking lot is located a half mile to the boat ramp and doesn't foresee a lot owner using the lot or trailering their boat. He stated he feels a condition that the owner provide proof of parking spaces prior to the issuance of a building permit meets the Zoning Ordinance and is an elegant solution to it. He stated at the last meeting the Board discussed an exaction fee on the parking lot at Pier 19 for the potential expansion of the lot; noting that he met with the Road Agent regarding such. He stated that the Board is reviewing a 2% overall increase in the usage of the lot. He stated he doesn't see enough evidence to support an exaction fee to increase the size of the lot. He stated the applicant is being held to a higher standard than what the Board has requested in the past by requiring the applicant to provide two parking spaces prior to the issuance of a building permit.

Bill Marcussen stated that by requiring proof of two parking spaces is formalizing what has been informal in the past. He stated by including such as a condition the Board is formalizing compliance.

Kate Nesbit stated the condition removes the necessity for the exaction.

Bill Marcussen expressed concern regarding a higher right of use over anyone else if an exaction fee is imposed to enlarge the parking lot.

Gary Qua stated he doesn't see the data or evidence to support an exaction fee. He stated there isn't any requirement that work needs to be done at this time.

Matt Young stated the Board discussed traffic and felt that the lots would have a minimal impact on traffic. He stated a State highway is the domain of the NHDOT.

Gary Qua stated Route 109 is a high traffic zone.

Matt Young questioned whether a traffic study is necessary.

Tony Triolo, Gary Qua and Bill Marcussen replied no.

Matt Young reviewed the following conditions of approval;

1. The applicant shall set the boundary monuments and submit a Certificate of Monumentation relative to such.
2. The approval is subject to all required State and Federal reviews, approval and permits.
3. The applicant shall provide copies of NH Electric Co-Op's final inspection and sign off. Site to be reviewed by the Town of Tuftonboro Codes Officer and returned to original elevations and Best Management Practices as outlined by Horizons Engineering (report dated October 2, 2019).
4. The applicant shall provide a cost estimate for site improvements.
5. The applicant shall submit a Mylar plan for recording at the Carroll County Registry of Deeds.
6. The applicant shall submit Attorney General Approval.
7. The applicant shall post a Performance Guarantee for site improvements.
8. Final plan modifications shall be certified by the Town of Tuftonboro's third party engineer, cost to be borne by the applicant.
9. The installation of all septic systems shall comply with NH Department of Environmental Services requirements. The Board encourages the applicant to install Clean Solution, Advanced Enviro-Septic or like systems when reasonable.
10. During the construction process, the applicant shall install water bars or features that are established to prevent runoff from traveling down the path.
11. The applicant shall adhere to erosion controls as noted in the State Permit(s).

12. The applicant shall apply a minimum 6-inch layer of natural mulch to the path and side slopes and place a 2-foot mulch berm at the path terminating at the lake. This condition is subject to review and inspection by the Town of Tuftonboro Codes Officer.
13. The applicant shall provide a Maintenance Agreement outlining the rights of the property owners and releasing the Town of Tuftonboro from any liability of the electrical infrastructure. The Maintenance Agreement shall be reviewed by Planning Board Counsel, cost to be borne by the applicant.
14. Prior to the issuance of a building permit for a single family dwelling, the applicant or individual lot owner shall certify that two off-street parking spaces have been arranged outside of Town property (Town of Tuftonboro public parking lot located on Route 109). The applicant or individual lot owner, invitees or guests will otherwise comply with all applicable Town regulations then in existence.
15. The payment of all recording fees is required prior to the signing and recording of the plan; two separate checks are required for such, both checks made payable to the Carroll County Registry of Deeds.
    - A check in the amount of $40.55 ($12.55 for recording the Notice of Decision & $28.00 for recording the plan). ******Please note if additional plans are being recorded the cost is $28 per plan.***
    - A check in the amount of $25.00 (L-CHIP surcharge fee instituted by the State of NH, effective 7/1/08).

It was moved by Kate Nesbit and seconded by Tony Triolo to approve the David Winchester, Donald Winchester and John Winchester and C&R NH Realty Trust, LLC application, Tax Map #40-2-1, subject to the conditions of approval. All members voted in favor. The motion passed.

Meredith Pierce Trust/William Albee, Willard and Meredith Pierce and Ronald Hooper 2000 Trust
Tax Map #68-2-1, 68-2-2 and 68-2-8
Boundary Line Adjustment
Matt Young stated the applicant has requested a continuance.

It was moved by Tony Triolo and seconded by Kate Nesbit to continue the Meredith Pierce Trust/William Albee, Willard and Meredith Pierce and Ronald Hooper 2000 Trust Boundary Line Adjustment application, Tax Map #68-2-1, 68-2-2 and 68-2-8, to November 7, 2019 at the Town Offices. All members voted in favor. The motion passed.

IV. Action Items
N/A

V. Discussion Items
N/A

VI. Informational Items
N/A

VII. Other Business
N/A

VIII. Public Comment
None.

It was moved by Tony Triolo and seconded by Gary Qua to adjourn the October 17, 2019 Tuftonboro Planning Board meeting. All members voted in favor.

There being no further business before the Board, the meeting adjourned at 9:10 PM.

Respectfully Submitted,

Lee Ann Hendrickson

Lee Ann Hendrickson

From: Cathy Conway
Sent: Thursday, October 17, 2019 2:41 PM
To: Lee Ann Hendrickson; Gary Qua Matt Young
Cc: Tyler Phillips
Subject: NH Land Use Consultants Resubmittal

To: Tuftonboro Planning Board

Per my conversation with Matt today, we reviewed the resubmittal from NH Land Use Consultants for the Farm Island Subdivision.

We did not recheck the calculations; but in reviewing the plans and the letter, the lots of concern have all been made larger and appear to meet the dimension and size requirements that were discussed in Items 1 and 2 Lot Dimensions and NH Subdivision Approval of Horizons letter dated October 3, 2019.

The issues discussed in Appendix A of Horizons report dated October 3, 2019 regarding lot frontage and lot depth also appear to be corrected. Again we did not check all calculations, but reviewed the plans and data as presented.

I think the other issues outlined in the letter related to water quality, parking, etc. will need to be discussed and decided by the Planning Board – we have offered our opinion and NH Land Use Consultants have responded to our letter and the conversation that occurred at the October 3 Planning Board meeting.

If you have any questions please let us know.

Thank you
Cathy

Cathy Furtek Conway, P.E.
Regional Office Manager / Senior Project Engineer
Horizons Engineering, Inc.
34 School St., Littleton, NH 03561
P. 603.444.4111 F. 603.444.1343

TOWN OF TUFTONBORO
"The Diamond in the Heart of New Hampshire"

TUFTONBORO PLANNING BOARD
DEPARTMENT HEAD APPROVAL FORM
FIRE CHIEF

Tax Map #: 40-2-1 **Subject Property:** Farm Island
Physical Address: 1 Farm Island
Proposal:
Request approval for:

I have reviewed the plans for the above named applicant and proposed project and have made a site visit to the location.

Date: 10/15/19 Signed: Adam Thompson, Fire Chief

Recommendations which do not affect approval:

All homes built in this subdivision will meet current codes, before a life safety inspection is completed,

Prior to approval by the Planning Board, I am making the following recommendations:

The following letter is for the Farm Island subdivision.
I have reviewed the one page plan emailed to the department last week.
The current planning board subdivision regulations 4.4.11 Fire protection and addendum D Tuftonboro Fire/Rescue Dept fire protection water supply sources does not apply to Island properties.
There are no requirments that a cistern or dry hydrant be installed because we can't utilize it with a land based fire truck.
The islands are protected by the department's fire boat kept at Pier 19 "Spring Through Fall" and it's Airboat in the winter time. Both boats carry portable pumps that would be utilized for fire protection. All water for the fire protection will come from lake Winnipesaukee.

240 Middle Road Post Office Box 98 Center Tuftonboro, NH 03816
(603) 569-4539 Fax (603) 569-4328

TOWN OF TUFTONBORO, NEW HAMPSHIRE
APPLICATION FOR 19 MILE BAY
OVERNIGHT PARKING PERMIT

Property Owner: _____

Local Address: _____

Local Mailing Address (if different): _____

Local Telephone Number(s): _____

Town Ordinance requires any vehicle parked overnight in the 19 Mile Bay Parking Lot to display a permit. Please hang from the vehicle's rear view mirror. All others will be subject to fines.

Each property owner is entitled to up to four (4) permits - fee for each permit is $3.50
Permits from a previous year may only require an updated year sticker for $1.00

Number of Permits Requested: _____ @ $3.50 ea.

Number of Date Stickers Only: _____ @ $1.00 ea.

Please Add Postage & Handling Fee of: @ $1.00

Total Amount Enclosed: $_____

Address where permits should be mailed: _____

_____

Please mail completed application along with payment to:

Town of Tuftonboro
P.O. Box 98
Ctr. Tuftonboro, NH 03816-0098

The Town of Tuftonboro does not assume responsibility for any vehicle parked in the lot. Should any concerns arise Tuftonboro Police will attempt to contact property owner at local telephone number provided.

Conditions for Approval of Subdivision Plan

Applicant must execute a maintenance agreement with the Town, in a form acceptable to Town counsel, ensuring that the utility line to the island is maintained at no expense to the Town.

Applicant must execute an indemnification agreement in favor or the Town and the property owner on which the utility line runs, in a form acceptable to Town counsel, agreeing to indemnify and hold harmless the Town and the property owner from any claims, costs, damages or expenses associated with the utility line and the energizing of the same.

Applicant shall be required to include as a deed restriction on the property it intends to acquire as well as on any deeds conveying the various lots, the requirement that the future lot owners remain responsible, collectively, for the utility maintenance and indemnification obligations set forth above, even after the Applicant has sold off all or some of the lots.

Applicant shall be required to include deed restrictions with regard to requirements of septic systems design and use on the island.

Plan shall provide for a 50-foot non-buildable buffer around area with potential loon nesting as agreed upon by the Applicant at public hearing.

Applicant shall provide an estimate from a licensed engineer of the estimated costs for all site work and shall provide the Town with a surety bond or irrevocable letter of credit worth 115% of the cost estimate.

Applicant shall provide proof that it has satisfied all conditions or requirements of the Fire Department; require installation of fire ponds or the like.

Applicant shall provide proof that the mandatory zoning requirement that each lot have two off-street parking spaces has been satisfied through the use of property owned or leased by the Applicant or proof that Applicant has obtained a variance from the Zoning Board of Adjustment.

Applicant shall provide adequate storm drainage required – carried to existing watercourses or existing storm drains to max extent feasible; no increase in surface runoff permitted

- Storm sewers and/or drainage facilities must be based upon a design flow with a min return interval of 10 year/24-hour storm.
- Retention structures 50 year/24-hour storm per Soil Conservation Service handbook

Applicant shall address lighting – Must be designed to control glare and light trespass, min. obtrusive light, conserve energy, maintain safety.

Establish funds for off-site capital improvements.

Establish a Traffic Study for potential impact.

Establish a Tree Study to address removal of trees to contain run-off and to be sure that the property is not clear cut. Each lot should be cleared as it is being developed.

All easements must be depicted on plan.

Applicant to address and provide for docking of barges during construction which plan must be in writing and accepted to the Town.

Applicant shall provide proof that it has obtained all other necessary State permits.

Tuftonboro's subdivision regulations states "The Subdivision shall preserve such natural/existing features, wetlands, watercourses, steep slopes, stonewalls, large or unique tree and/or habitats, and scenic views".

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Tuftonboro Planning Board
Attn: Mr. Matt Young, Chairman
Town of Tuftonboro
240 Middle Road
P.O. Box 98
Center Tuftonboro, NH 03816

Date: 10-11-2019

Re: 1 Farm Island Subdivision Plan (Map 40/Lot 2-1) reviewed by Horizons Engineering dated: October 2, 2019.

Below you will find a response in **BOLD** to the comments prepared by Horizons Engineering, Inc. dated October 2, 2019.

1. **Lot Dimensions**

a. Lot Depth

i. Tuftonboro's Zoning Ordinance (see table in Sec. 4.2) requires that lots be a minimum of 200' deep and defines lot depth (Zoning Ordinance Sec. 1.1.29) as the horizontal distance between the front lot line and the rear lot line. Lots 2-6 and 2-10 are configured in a manner which makes determination of a rear lot line (and therefore compliance with the Tuftonboro Zoning Ordinance (ZO)) uncertain. Lot 2-10 would typically be measured from a single point at the rear of this triangular lot and using this approach the lot meets depth requirements. Lot 2-6 is less certain when one measures from the northerly back line pin, perpendicular to the back line, to the front of the lot. *Using this typical approach, we find that proposed lot 2-6 has less than 200' of depth and should be reconfigured.*

Response: Lot 2-6 has been reconfigured to the meet this requirement. If the house is facing East the average depth, as described above, is now 200.4' where 200' is required. If the house is faced North, as anticipated, the depth is much more.

b. Lot Frontage

i. Tuftonboro ZO (see table in Sec. 4.2) requires 150' of lot frontage. The ZO (Sec 1.1.22) defines shore lot frontage as that measured in 50-foot chords. *Lot 2's frontage does not appear to meet*

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this requirement and should be reconfigured.

Response: Lot 2 has been revised to meet the requirement of the frontage by measuring it with 50' chords along the reference line and all lots have been reviewed to assure they meet this requirement.

c. Lot size

i. Tuftonboro ZO (see table in Sec. 4.2) requires that lots in the Island Conservation Zone contain a minimum of 1 acre of land exclusive of land steeper than 25% and (per ZO12.5.3.B) wetlands. Although in our review we computed a difference in the area of land which would count towards minimum lot sizes, we do not find that wetlands areas nor land over 25% would render any lot insufficient to meet the ZO's minimum lot size requirement with respect to these landcover features.

Response: We performed calculations proving all lots have at least 1 acre of upland soils excluding slopes of 25%+ and wetlands. See enclosed a slope, loading and area analysis.

d. A summary of survey review results and comments can be found in *Appendix A*.

Response: See response at the end of this letter.

2. NH Subdivision Approval

a. Soil based lot size

i. State Subdivision approval is needed for creation of lots less than 5 acres to provide reasonable assurance that the soils on a proposed lot can support the anticipated septic load. The intent of this process is to lessen the risk that a lot is created and later, during the completion of a septic design (which is a separate process which is typically carried out by the individual lot owner), the lot owner finds

that the lot does not have suitable soils or area for effluent disposal. Accordingly, in NH Subdivision Rules the NH DES specifies (in Env-Wq 1000, Table 1005-1) that lots must have a minimum area of soils exclusive of very poorly drained soils. Soils are grouped according to their drainage class (with Group 1 being very well drained and Group 6 being very poorly drained) and are to be determined based upon the Natural Resource Conservation Service (NRCS) soils map

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and confirmed with an onsite test pit. The applicant has stated in note 18 on the plans that all soils on the lots to be created are Group 3 soils and that the intended septic loading will be based upon 4 bedrooms.

Another metric in the DES Table is slope with steeper slopes requiring larger lots to accommodate the same septic loading. While the applicant has made a general statement on the plans regarding lot slope (indicating that the majority of the lot slope is A slope 0-8%) but has inconsistently noted the soil type on the plan as a C slope 8-15%; a closer review of the slopes of the lot using the topography contained on the plans indicates that for certain lots, over 40% of the lot contains slopes steeper than 8%. Horizons completed a slope analysis of the proposed lots and in conjunction with the DES table, *has determined that the composite slopes on lots 2-5, 2-6, and 2-10 may prompt the need for larger lots* than are presently proposed (please refer to *Appendix B*). DES will ultimately review the applicant's application for State Subdivision and make a determination, however we feel that whether the DES uses default NRCS slopes or more detailed slope information described above, several of the lots may need to be larger than currently proposed.

Response: All lots have been reviewed for compliance with NHDES requirements and all meet or exceed the requirements. Please see enclosed a slope, loading and area analysis.

b. Well Radius

i. A 75' protective well radius has been shown for each lot. This is required by DES and per Env-Wq 1005.05 the well radius must be wholly contained on the proposed lot. *We observe that the well radius on lot 2-9 is not contained on the lot. We recommend that this be addressed.*

Response: We've moved the well radius to be show the radius can be wholly contained on the lot as requested.

3. **Water Quality**

There appears to be significant interest and concern by residents regarding the effects of the proposed subdivision on water quality. Most of this interest seems to relate to nutrients and other non-point source pollution (NPS- non-point source pollution is that originating from diffused sources or human or animal activities as opposed to point source pollution in which pipes or discrete pathways deliver pollutants to receiving waters). This concern over the potential contributions of NPS pollutants is understandable given that the subdivision is surrounded by

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water, however we question whether the risk of NPS pollutant generation and delivery is any greater than a lot located on shore which may front on a lake or tributary to the lake. This does not diminish the concerns over potential impacts to water quality, but rather puts them in perspective with other types of development for which residents may be more familiar.

Contributions of sediments, phosphorus, and nitrogen are often identified as leading to eutrophication or accelerated enrichment and aging of a waterbody. Algal blooms are often symptomatic of an increase in the availability of nutrients and some blue-green alga can lead to negative health affects in humans and other mammals if such algae is ingested. In Lake Winnipesaukee much of the focus has been on limiting inputs of phosphorus and sediments which can contain loosely bonded phosphorus. To properly characterize the risk of contributing excess phosphorus or sediment loads one must look at both the potential source
and likelihood/pathway of delivery to a receiving water. Generally, impervious surfaces such as roadways, parking lots and rooftops are implicated as being both a collector of pollutants as well as generating the increased stormwater runoff needed to deliver the pollutants to a receiving water. Further, it is the intensity with which roadways and parking lots are used which positively correlates with increased pollutant generation. Where the project in question will presumably have no roads or parking areas, the concentration of pollutants and delivery mechanisms are unlikely to be present where they could otherwise create potential impacts to water quality. In an island setting, the sources of anthropogenic (human caused) phosphorus contributions are often associated with fertilizers, septic systems, erosion during construction, and beach construction/replenishment. In an effort to address the various water quality concerns we offer the following observations and a few suggestions.

Septic systems

i. Testimony provided by the applicant's agent at the July 18, 2019 indicate that the applicant will be installing "enviro-septic advanced systems (clean solutions)". Clean Solutions systems utilize aerobic treatment in a tank before the treated water is released to the ground in a leach field system. Such systems have excellent removal of nitrogen and BOD, require a smaller leach field system (creating less tree cutting and land disturbance than typical leach field systems) and require a homeowner to have a maintenance agreement which ensures that systems continue to operate with a high level of treatment rather than one which declines over time. Phosphorus removal in Clean Solutions tanks is likely on par with other systems as much of the phosphorus removal occurs in the soils which underlie the leach field, not due enhanced removal in an aerated septic tank. The installation of such systems would reduce concerns of other nutrients

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and oxygen demanding substances reaching the lake, although it is important to remember that the reduction of phosphorus in commercially available cleaning products has had as much or more of an impact in lowering phosphorus content in wastewater than the removal of phosphorus by any conventional or enhanced septic system. Still, due to the reduced footprint and mandatory maintenance agreement, if the use of Clean Solutions systems is a condition of a subdivision approval, we would consider this use to be Best Available Technology and offer no further comment on the potential pollutant contributions from such systems.

If such a system will not be used and instead an Enviro system will be used, we would consider such a system as acceptable and generally to have far less pollutant contributions than many of the aging stone and pipe systems currently in existence on many waterfront lots elsewhere in the community. In fact, as a result of the recent purchase of the company who manufactures Enviro systems, new Enviro systems installed after September 1, 2019 will be required to be sized to have almost twice the amount of leaching area as Enviro systems installed just one year ago.
This additional leaching area and exposure to the phosphorus binding soils can be considered to improve treatment and increase the longevity of a septic leach field system.

Other factors that may lessen concerns about pollution from these modern-day systems include:

- that they have to meet 75' setbacks from water or wetlands; and
- perc rates were slow enough for DES not to require increased setbacks (125') to surface waters; and
- conversion to year-round use/loading is highly unlikely on an island; and
- septic system evaluations are performed at the time of sale of the property.

From this, and although lacking the base data used in the model by Lake Winnipesaukee Association in their July 17th letter, we feel that *the applicant has minimized the risk of phosphorus contributions to the lake from septic systems.*

Response: All septic system designs are required to be reviewed and approved by the NHDES and the Town of Tuftonboro Code Enforcement/Health Officer. With many different system types available to be used, that meet the local and state requirements, it is difficult to state what type of system a homeowner will use, but we can guarantee that the system will be a locally and NHDES approved technology.

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Fertilizer

ii. The island and proposed lots will be regulated at the time of development by the DES Surface Water Quality Protection Act (formerly the DES Comprehensive Shoreland Protection Act) Rules and associated Shoreland Permit. These Rules:

- prohibit use of fertilizer within 25' of the shoreline and require that slow release nitrogen fertilizer be used elsewhere within the Zone; and
- restrict the volume of trees which may be cut within the Waterfront Buffer (all areas within 50' of the water or Reference Line); and

- prohibit placement of homes within the Waterfront Buffer; and
- require that at least 25% of the land area within the Woodland Buffer (between 50' and 150' from the water) remain in a natural state.

The improper use of fertilizer near shore is perhaps one of the most direct means of concentrated delivery of phosphorus to a water body. This is due to both the concentrated nature of the nutrients in a fertilizer, its proximity to the receiving water and associated short travel distance, and accompanying lack of pollutant attenuation in underlying soils. Since prohibitions on use of phosphorus are difficult to enforce directly, it is instead the preservation of native vegetation adapted to native soils and pH which can lessen the need for fertilizer and therefore tends to reduce fertilizer related nutrient inputs. *Close adherence to Shoreland Rules regarding preservation of native vegetation, and restoration of disturbed earth surfaces with comparable native vegetation should result in settings in which additions of nutrients are not needed.*

Response: As discussed at the meetings, and above, any disturbance on the lots within 250' of the reference line will require a permit from NHDES Surface Water Quality Protection Act which closely controls what can happen in the 250' setback.

Ground Disturbance

iii. The contribution of sediments and associated phosphorus can be significant during construction and may be several orders of magnitude higher than contributions from a site when work is complete and the site has been stabilized and erosion is minimal. Given what we know about the timing and extent of anticipated ground disturbance at the site it appears as though a DES Alteration of Terrain permit will not be needed. This conclusion is based upon the presumption that earth disturbance associated with the common infrastructure (such as

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underground electric or any grading not presented on the plans) does not exceed 50,000 square feet when any of this common infrastructure work occurs within the Shoreland Zone. Individual lot development subsequent to this common earth disturbance would not be subject to AoT rules related to stormwater management and erosion control unless such contiguous disturbance crosses the 50,000 square foot threshold in the Shoreland Zone (or 100,000 square feet if completely outside of the Shoreland Zone).It is presumed that most of the earth disturbance associated with individual lot development will be initiated at the presumed access along the lake frontage. While Shoreland Rules would typically limit such disturbance to be a 6' wide path in the Waterfront Buffer, the Rules accommodate island lot owners with a temporary 12' wide access into the interior of the lot. If improperly managed either during construction or even when construction is completed, such an access is perhaps the greatest potential source of sediments and phosphorus from this type of island lot development. Thankfully the threats of water quality from such an access path are quite easily addressed with simple cost-effective measures. *During construction the access path should have waterbars or other features that are established and maintained to prevent runoff from travelling down the road to the lake.* Typical erosion controls will be required by the Shoreland permit needed by lot owners to develop the lot and these should be in addition to the recommended dispersion of runoff from the access path. After construction is complete the path is required to be returned to a pervious surface (as required by Section V.a.2.D.viii of the Shoreland Rules). Unfortunately, this is often never done or done so poorly that it functions as a failing gravel road contributing sediment directly to the lake. An enhanced and cost-effective measure would be for the Town to *require that lot owners apply a minimum of 6" thick layer of mulch to the path and its sideslopes and place a 2' tall berm of mulch at the path's termination with the lake.* This material could easily be wood chips and other biomass derived from the clearing of those portions of the lot necessary for lot development and thus enable the reuse of material that might otherwise be hauled away. Additionally, use of this native material will lessen the likelihood of importing invasive species in hay bales or other tree diseases in mulch materials that might otherwise be imported from the mainland. *The use of grass as a form of stabilization on the access or anywhere on the lot should be avoided if the use of mulch is feasible.* The effect that mulch can have on preventing water quality impacts from a developed lot cannot be overstated as mulch serves to prevent erosion, capture and absorb precipitation so as to minimize runoff (especially from disturbed or mixed soils with a restrictive layer as discovered onsite by others), and capture and assimilate many

forms of organic and inorganic pollutants. As has been raised by others, the project will likely be required to obtain coverage under the EPA National Pollution Discharge Elimination System (NPDES) Construction General Permit (CGP) as this subdivision represents a "common plan of development" which will collectively result in an aggregate area of disturbance which will exceed 1 acre (43,560 square feet). Compliance with the permit will require not only an erosion control plan, but importantly, inspections of erosion control measures on a regular basis. Inspections by a qualified person (as required by the EPA CGP) will help ensure that the erosion control plan is followed and adjusted as needed to address unanticipated circumstances, but also that Shoreland permit conditions and erosion controls are followed. Since records of the inspections must be made and kept and available to agencies upon request, any complaints of non-compliance to the town, DES or EPA can easily be investigated. Each inspection report must be signed by the inspector under penalty of significant fines and imprisonment.

Response: As stated in the comment above, each lot will be required to submit, for review and approval, a shoreland permit and all requirements/conditions of such permit will be required to be followed during construction by the homeowner.

Impervious surfaces

i. Although regulated by the Shoreland Rules, the Town's ZO prohibits greater than 20% lot coverage by impervious surfaces. It is unlikely that individual lot development on an island would result in greater than 20% lot coverage by such surfaces. Further, since the island will lack vehicular traffic, the majority of such surfaces will tend to be roofs which will likely only capture airborne deposited sources of phosphorus (leaves and pollen). These phosphorus containing materials and the distance of the roofs to the lake mean that such materials are less likely to be carried from such surfaces as those airborne sources directly into the lake. Thus, as currently proposed we do not expect water quality threats to arise from the impervious surfaces anticipated on this development.

ii. For the reasons above related to differing land vs island development patterns and our familiarity with various pollutant loading models we respectfully disagree with the level of phosphorus load contributions associated with low density residential development estimated by the Lake Winnipesaukee Association in their July 17, 2019 letter to the Planning

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Board.

Response: As stated above the lots are required to have no more than 20% of lot coverage and with no roads proposed, we anticipate all lot development will result in much less than 20% impervious coverage.

Beaches

iii. The majority of the shoreline within the proposed subdivision appears too steep to offer opportunities for the development of a beach. Those few areas with gradual shoreline topography tend to be wetlands where it is presumed that the DES Wetlands Bureau, or the Town, through its Wetland Conservation Overlay District, would deny an application for the requisite Special Exception needed to perform such construction within a Wetland. We do not see the construction of beaches (perched or otherwise) to be a likely feature of this subdivision.

Response: This was discussed at the last Planning Board hearing and due to the condition of the shorefront on all of the lots being rocky the board discussed that it would be extremely difficult, if not impossible, to get permitting to build a beach. In addition to the difficulty any beach would need to be permitted through NHDES.

Pesticides

iv. The regulation on the use of herbicides/pesticides is pre-empted by state statute (RSA 430:49), meaning the town cannot restrict usage of these products. However, within 50 feet of the Lake a Special Permit must be obtained from the NH Division of Agriculture, Markets and Food, and herbicide/pesticide products must be applied by a registered commercial applicator. These applicators must comply with various requirements regarding application near waters and preventing spray drift. As with fertilizers, preventing unauthorized use of such materials within the Shoreland Zone is difficult to enforce and may be better addressed by ensuring restoration of areas required by Shoreland permits is completed with native vegetation (as required by the Shoreland Rules) as such vegetation can be more resilient to local nuisance insects and diseases and lessen the need for herbicides and pesticides.

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Response: As stated in the comment above, each lot will be submitted for review and approval for a shoreland permit to NHDES and all requirements of such permit will be required to be followed.

4. **Tree Cutting**

a. As noted above, tree cutting is restricted in those areas of the property which lie within 150' of the SWQPA Reference line. Further inland trees can be cut without restrictions except that due to this cutting being associated with land conversion:

- one must obtain a standard wetland permit (DES Forestry Notifications are not applicable) if they will cross or impact wetlands as part of the cutting; and
- any removal of stumps or grubbing of the ground prior to an affected lot's sale would add to the earth disturbance associated with the installation of underground electric and count towards the applicants 50,000 square foot earth disturbance threshold which prompts the need for a DES Alteration of Terrain permit.

Response: As stated in the comment all tree cutting within the SWQPA setbacks will be controlled by NHDES and required to be shown on the shoreland permit when applied for.

5. **Wetlands**

a. Areas of wetlands on the site are considered by ZO Section 12.3 to be in their own zoning district as an overlay zone. This means that such land areas carry the greater level of protection afforded in either the underlying Island Conservation District or the Wetland Conservation District. We did not formally review the delineations of wetlands on the site, but did note on the site visit a small slightly depressed area in the vicinity of proposed lot 2-4 with dark stained leaves, no inlet or outlet, which might exhibit characteristics of a vernal pool during the appropriate spring assessment period. The area was not flagged as a wetland however and its perched position in the landscape may not offer boundary conditions suitable for retaining sufficient water depth to host indicator organisms. We are unable to conclude if this warrants further field evaluation, but feel that *this matter should be addressed by the wetland scientist who performed the wetland delineation.*

b. Although more of a housekeeping issue, *the plans should contain the wetland certification required by ZO Sec 12.3.2 and 12.3.4.*

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c. There is testimony by the applicant's agent that the potential loon nesting area near proposed lot 2-8 is a wetland and that there is a 50-foot wetland setback. It is unclear if this is a self-imposed setback that that applicant is proposing or if this is referencing the 50-foot Shoreland setback (referred to as the Waterfront Buffer) in which primary structures are prohibited, but accessory structures are allowed. Given that the 50' setback shown on the plans extends further beyond the wetlands which exist along the shoreline and appear associated with an isolated wetland on lot 2-8 we presume that this is a self-imposed wetland setback. *The applicant should state what they are prohibiting within this and all 50' wetland setbacks* as it may allay concerns of both those interested in loon habitat as well as those concerned about impacting wetlands and water quality.

Response:

a. The wetland scientist stated at the last meeting in his opinion the area in question is not a vernal pool.

b. The wetland certifications as required has been added to the plans.

c. We are showing a "no disturb" setback on the majority of the wetland in the area of the potential loon nesting area on the eastern side of the parcel. We have excluded from this "no disturb" buffer a 25' water access location on lot 2-8 on the northern lot line.

6. **Parking**

a. The ZO (Sec 6.2) requires 2 spaces per residential dwelling unit. Testimony from applicant's agent indicates that future Farm Island residents may park in the existing town lot located off Rte. 109 near the town beach. More recent testimony by the applicant appears to indicate that parking is available along the side of Rte. 109. We cannot comment on the unique usage patterns of island residents in this 19 Mile Bay locale, nor the current utilization of the public parking lot. We do believe that utilizing a state Right of Way to satisfy parking requirements is not acceptable. If the parking requirements for this development are to be met in the public lot, we estimate such area to occupy 20% of the total lot space available. If the town feels that this is a disproportionate share of who the town intended the lot to serve, *the town is within its rights (per sec 2.3.7.A.6. & 3.3.4.D.5 of the Tuftonboro Subdivision Regulations) to ask for compensation for future expansion of the existing lot*

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Response: The applicant is currently discussing how to respond to the parking concerns and plans on having a solution ready to present at the next Planning Board hearing on October 17, 2019.

7 Traffic

a. We do not anticipate that this 10-lot subdivision on an island will create any discernable impact on the capacity or serviceability of the roadways used to access the lake/Island. This is in part due to the number of lots being created, in part due to the lesser number of round trips per day made by those on islands, and in part because almost all public roads in the vicinity of the island and associated lake access points are state highways. These highways have higher capacities than town or private roadways which may be utilized by other similar sized subdivisions in town and for which this traffic impact language may have been intended.

Response: Per the discussion and decision by the Planning Board at the last meeting, that in their opinion, traffic is not a concern to them, we feel there is no response required for this comment.

8. Electric service

b. Horizons did not perform a review of the functionality of the underwater electrical line providing service to the island, but did read that the line was energized and found to be functional. We also understand that all electrical lines on the island will be underground and installed prior to offering lots for sale or that a bond for such installation will be put in place.

Since it is our understanding that the applicant or future lot owners would likely be responsible for any replacement of the existing underwater line and future underground service on the island, we *recommend that all responsibilities and liabilities be clearly defined in a maintenance agreement.* While bonding for a yet-to-be-needed replacement of the underwater line may not be appropriate, the *Town should be held harmless of all financial and safety liabilities and such statement should be recorded on the subdivision plan or other durable document that can survive any dissolution of a homeowners association or other revocable legal instrument.*

c. Concerns have been raised about the potential wetlands impact of needing to bury a new underwater electrical line. It is unclear as to when such replacement may be needed, nor the

rigor of the Wetland Rules at the time that the replacement would be permitted, however directional drilling (with greater shore impacts, but less lake bed impacts) may be an approach which has more appeal at the point in time in which such a replacement is contemplated.

Response: Per the letter dated 8-27-2019, and email correspondence submitted from New Hampshire Electric Co-op, NHEC has inspected the electrical line and noted, "at the time it exhibited no mechanical issues", in addition to the letter, email communication was submitted to the Planning Board at the last meeting stating NHEC will take ownership of and be liable for the lines once energized.

1. **Fire Protection**

a. The Town of Tuftonboro's Subdivision regulations require (per Sec. 4.4.11) consultation with the Tuftonboro Fire Department to ensure an adequate water supply exists for fire suppression. Addendum D of the Subdivision regulations includes requirements for dry hydrants. Since the Town's Fire department has a fire boat which may be used to supplement land-based initial attack of a fire located on a shorefront lot located on mainland, it is not known how the Fire department addresses fire suppression on islands

where the only means of attack is from a fire boat. *We did not see in the record that the applicant has performed the requisite coordination with the Fire Department and suggest that this be done.*

Response: The applicant has contacted the fire department and will provide any communication between them to the Planning Board.

<u>Datum</u>

- Ref. line is shown as 503.84, Mean High Water is shown to be 503.82 on plan note.

Response: All notes for the reference line have been revised to 503.82'.

<u>Topology</u>

- Granit Bare Earth DEM LiDAR data, dated 2015 shows the plans topology to generally be very accurate with exception of approx. 2,000 SF decrease in Lot #2-8 determined by the LiDAR Bare Earth DEM location of ref. line of elevation 503.84 (NAVD88).

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Response: We located the shorefront onsite and, in our opinion, this produces more accurate data than using LiDAR to determine the reference line, a property line.

Lot Dimensions

- Lot #2 - Southerly dimension is shown as 503.14' appears to actually be 484.79' from rebar to rebar and then the additional 18.35' +/- from rebar to ref. line.

Response: The distances has been revised as requested.

- Lot #2-8 – Southerly dimension between Doucet rebar found and rebar to be set shown as [S 89° 43' 19" W, 37.00'] appears to actually be [S 89° 40' 34" W 81.60'].

Response: The bearing and distance has been revised as requested.

- Lot #2-10 - Unsure where bearing [S 47° 02' 11" E] came from. Seems bearing of [N 47° 02' 11" W] should be used or none at all and the dimension shown as 13.20' +/-a tie to the ref. line.

Response: The bearing has been reversed 180° as requested.

Lot Area

- Lot #2-6 – Actual calculated upland area appears to be approx. 300 SF less than shown on plan.

Response: All areas have been reviewed and modified as needed.

Lot Frontage

- *Lot #2 – Per Zoning Ordinance section 1.1.22 Frontage: "shall be measured in in fifty-foot (50) chords.". The frontage appears to be approx. 2' short of this. However actual frontage on the ref. line appears to be 150'.*

Response: All lots have been reviewed for the 50' chord length evaluation and all meet or exceed this requirement.

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Plan notes and certification

- Plan reference is indexed at the Carroll County Registry of Deeds as Book 226 Page 34, however plan was recorded with Page 24 hand-written on plan even though there is another plan indexed at the Registry as Book 226 Page 24. This could cause confusion in the future. And should be addressed by the applicant and Registry.

Response: The plan reference has been revised to note the plan is recorded as page 34, but is noted as page 24 on the plan.

- The plan does not explicitly state how wetland delineation locations were recovered from the field. This leaves the accuracy of the size and location of wetlands open to conjecture.

Response: We added the required certifications as noted previously in this response letter and per the certification of the Licensed Land Surveyor, that states: "I certify that this plat is based upon the plan references and a field survey conducted on the ground in the winter and summer of 2019 meeting the minimum requirements for the accuracy, 1:10,000 and completeness per the state of New Hampshire and the Town of Tuftonboro, N.H." the surveyor is certifying to the accuracy of the data presented for the boundary and existing conditions, including the wetlands and the Wetland scientist, Thomas Sokoloski, CWS, is certifying to the wetland delineation as presented.

- Lots are not consecutively numbered as required by subdivision regulation section 3.3.2 F. Renumbering of lots should be completed prior to recordation to aid in maintaining the town's tax map and lot numbering convention.

Response: We will verify all lot numbers with the Town prior to producing the final mylar for recording.

Lot Depth

Lot #2-6 - With the assumption the easterly 184.15' line be considered the rear lot line. Lot depth could be determined to be under 200' making the lot non-compliant with Town Zoning. An average of the southerly side being 239.52' and a 147.29' measurement made

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perpendicular to the rear lot line from rebar to be set to ref. line equals a 190.90' average depth.

Response: Lot 2-6 has been revised and now has an average of 200' depth.

Please find attached the slope analysis for all lots.

Respectfully submitted,
Scott R. Frankiewicz, LLS, NHDES Septic design, Realtor
New Hampshire Land Consultants, PLLC

Lot 2 Soil Group 3 Total Area (sf) = 94,240	NHDES Soil Group & Slope	area (sf)	% of total lot area	NHDES Min. Lot Size (sf)	% of NHDES Lot size
	Group 3, slope 0-8%	54,783	58.1	48,000	114.13
	Group 3, slope 8-15%	32,747	34.7	53,000	61.79
	Group 3, slope 15-25%	4,998	5.3	62,000	8.06
	Group 3, slope 25-35%	380	0.4	72,000	0.53
	Group 3, slope 35%+	1,332	1.4	NA	
	Group 5 soils (wetlands, PD, ALL 0-8%)	0	0.0	90,000	0.00
	Total	94,240	100.0	Percent of Min. lot size per NHDES requirements (must be 100%)=	**185%**

NHDES Lot loading calcs						
	Lot area		**94,240**	**NHDES SEWERAGE LOADING FACTOR**	GPD	
	minus well area		17672			
	Asummed all well area to be Group 3, 0-8%					
	lot area for loading			**USED AVERAGE FACTOR (1.6,1.76,2.08)**		
	Remaining land		76,569	1.81	1942	**Total GPD**
					12.95	**Bedrooms**
					12	**Allowed bedrooms**
	Lot Size = (Q(gpd)/2,000 (gpd/acre)) x sewerage loading factor					

Area excluding 25%+ slopes and wetlands	92,528	**Sq. Ft.**
	2.12	**Acres**
Town of Tuftonboro requires 1 acre minimum		

Frontage per Z.O. Sec. 1.1.22	197.2'
Frontage per Reference line	200'+

Lot 2-1
Soil Group 3
Total Area (sf) =
52,742

NHDES Soil Group & Slope	area (sf)	% of total lot area	NHDES Min. Lot Size (sf)	% of NHDES Lot size
Group 3, slope 0-8%	31,864	60.4	48,000	66.4
Group 3, slope 8-15%	17,993	34.1	53,000	33.9
Group 3, slope 15-25%	1,940	3.7	62,000	3.1
Group 3, slope 25-35%	210	0.4	72,000	0.3
Group 3, slope 35%+	75	0.1	NA	
Group 5 soils (wetlands, PD, ALL 0-8%)	660	1.3	90,000	0.7
Total	52,742	100.0		

Percent of Min. lot size per NHDES requirements (must be 100%)= **104%**

NHDES Lot loading calcs

Lot area		**52,742**	**NHDES SEWERAGE LOADING FACTOR**	GPD	
minus well area		17672			
Asummed all well area to be Group 3, 8-15%			Worst case		
lot area for loading			**USED AVERAGE FACTOR (1.6,1.76,2.08)**		
Remaining land		35,071	1.81	890	**Total GPD**
				5.93	**Bedrooms**
				5	**Allowed bedrooms**
Lot Size = (Q(gpd)/2,000 (gpd/acre)) x sewerage loading factor					

Area excluding 25%+ slopes and wetlands

51,797	Sq. Ft.
1.19	Acres

Town of Tuftonboro requires 1 acre minimum

Frontage per Z.O. Sec. 1.1.22 150.0'

Frontage per Reference line 151'+

Lot 2-3 Soil Group 3 Total Area (sf) =
53,463

NHDES Soil Group & Slope	area (sf)	% of total lot area	NHDES Min. Lot Size (sf)	% of NHDES Lot size
Group 3, slope 0-8%	38,313	71.7	48,000	79.8
Group 3, slope 8-15%	12,024	22.5	53,000	22.7
Group 3, slope 15-25%	504	0.9	62,000	0.8
Group 3, slope 25-35%	185	0.3	72,000	0.3
Group 3, slope 35%+	554	1.0	NA	
Group 5 soils (wetlands, PD, ALL 0-8%)	1,883	3.5	90,000	2.1
Total	53,463	100.0	Percent of Min. lot size per NHDES requirements (must be 100%)=	**106%**

NHDES Lot loading calcs

Lot area		53,463	NHDES SEWERAGE LOADING FACTOR	GPD	
minus well area		17672			
Asummed all well area to be Group 3, 8-15%			Worst case		
lot area for loading			USED AVERAGE FACTOR (1.6,1.76,2.08)		
Remaining land		35,792	1.81	908	Total GPD
				6.05	Bedrooms
				6	Allowed bedrooms
Lot Size = (Q(gpd)/2,000 (gpd/acre)) x sewerage loading factor					

Area excluding 25%+ slopes and wetlands	50,841	Sq. Ft.
Town of Tuftonboro requires 1 acre minimum	1.17	Acres

Frontage per Z.O. Sec. 1.1.22	150.2'

Frontage per Reference line	150.0'

Lot 2-4 Soil Group 3 Total Area (sf) = 62,174	NHDES Soil Group & Slope	area (sf)	% of total lot area	NHDES Min. Lot Size (sf)	% of NHDES Lot size
	Group 3, slope 0-8%	52,333	84.2	48,000	109.0
	Group 3, slope 8-15%	3,537	5.7	53,000	6.7
	Group 3, slope 15-25%	1,569	2.5	62,000	2.5
	Group 3, slope 25-35%	300	0.5	72,000	0.4
	Group 3, slope 35%+	1,079	1.7	NA	
	Group 5 soils (wetlands, PD, ALL 0-8%)	3,356	5.4	90,000	3.7
	Total	62,174	100.0	Percent of Min. lot size per NHDES requirements (must be 100%)=	**122%**

NHDES Lot loading calcs						
	Lot area		**62,174**	**NHDES SEWERAGE LOADING FACTOR**	GPD	
	minus well area		17672			
	Asummed all well area to be Group 3, 8-15%			Worst case		
	lot area for loading			**USED AVERAGE FACTOR (1.6,1.76,2.08)**		
	Remaining land		44,503	1.81	1129	**Total GPD**
					7.53	**Bedrooms**
					7	**Allowed bedrooms**
	Lot Size = (Q(gpd)/2,000 (gpd/acre)) x sewerage loading factor					

Area excluding 25%+ slopes and wetlands	57,439	**Sq. Ft.**
Town of Tuftonboro requires 1 acre minimum	1.32	**Acres**

Frontage per Z.O. Sec. 1.1.22	342.8'
Frontage per Reference line	349'+

Lot 2-5
Soil Group 3
Total Area (sf) =
52,265

NHDES Soil Group & Slope	area (sf)	% of total lot area	NHDES Min. Lot Size (sf)	% of NHDES Lot size
Group 3, slope 0-8%	34,775	66.5	48,000	72.4
Group 3, slope 8-15%	11,330	21.7	53,000	21.4
Group 3, slope 15-25%	1,287	2.5	62,000	2.1
Group 3, slope 25-35%	246	0.5	72,000	0.3
Group 3, slope 35%+	1,018	1.9	NA	
Group 5 soils (wetlands, PD, ALL 0-8%)	3,609	6.9	90,000	4.0
Total	52,265	100.0	Percent of Min. lot size per NHDES requirements (must be 100%)=	**100%**

NHDES Lot loading calcs

Lot area		**52,265**	**NHDES SEWERAGE LOADING FACTOR**	GPD	
minus well area		17672			
Asummed all well area to be Group 3, 8-15%			Worst case		
lot area for loading			**USED AVERAGE FACTOR (1.6,1.76,2.08)**		
Remaining land		34,594	1.81	878	**Total GPD**
				5.85	**Bedrooms**
				5	**Allowed bedrooms**
Lot Size = (Q(gpd)/2,000 (gpd/acre)) x sewerage loading factor					

Area excluding 25%+ slopes and wetlands	47,392	Sq. Ft.
	1.09	Acres
Town of Tuftonboro requires 1 acre minimum		

Frontage per Z.O. Sec. 1.1.22	381.6'
Frontage per Reference line	401'+

Lot 2-6
Soil Group 3
Total Area (sf) =
52,819

NHDES Soil Group & Slope	area (sf)	% of total lot area	NHDES Min. Lot Size (sf)	% of NHDES Lot size
Group 3, slope 0-8%	37,714	71.4	48,000	78.6
Group 3, slope 8-15%	11,378	21.5	53,000	21.5
Group 3, slope 15-25%	1,373	2.6	62,000	2.2
Group 3, slope 25-35%	321	0.6	72,000	0.4
Group 3, slope 35%+	589	1.1	NA	
Group 5 soils (wetlands, PD, ALL 0-8%)	1,444	2.7	90,000	1.6
Total	52,819	100.0	Percent of Min. lot size per NHDES requirements (must be 100%)=	104%

NHDES Lot loading calcs

Lot area		52,819	NHDES SEWERAGE LOADING FACTOR	GPD	
minus well area		17672			
Asummed all well area to be Group 3, 8-15%			Worst case		
lot area for loading			USED AVERAGE FACTOR (1.6,1.76,2.08)		
Remaining land		35,148	1.81	892	Total GPD
				5.94	Bedrooms
				5	Allowed bedrooms
Lot Size = (Q(gpd)/2,000 (gpd/acre)) x sewerage loading factor					

Area excluding 25%+ slopes and wetlands	50,465	Sq. Ft.
Town of Tuftonboro requires 1 acre minimum	1.16	Acres

Frontage per Z.O. Sec. 1.1.22	390.4'
Frontage per Reference line	430'+

Lot 2-7
Soil Group 3
Total Area (sf) =
57,910

NHDES Soil Group & Slope	area (sf)	% of total lot area	NHDES Min. Lot Size (sf)	% of NHDES Lot size
Group 3, slope 0-8%	35,142	60.7	48,000	73.2
Group 3, slope 8-15%	17,066	29.5	53,000	32.2
Group 3, slope 15-25%	4,336	7.5	62,000	7.0
Group 3, slope 25-35%	345	0.6	72,000	0.5
Group 3, slope 35%+	381	0.7	NA	
Group 5 soils (wetlands, PD, ALL 0-8%)	640	1.1	90,000	0.7
Total	57,910	100.0		
			Percent of Min. lot size per NHDES requirements (must be 100%)=	114%

NHDES Lot loading calcs

Lot area		57,910	NHDES SEWERAGE LOADING FACTOR	GPD	
minus well area		17672			
Asummed all well area to be Group 3, 8-15%			Worst case		
lot area for loading			USED AVERAGE FACTOR (1.6,1.76,2.08)		
Remaining land		40,239	1.81	1021	Total GPD
				6.80	Bedrooms
				6	Allowed bedrooms
Lot Size = (Q(gpd)/2,000 (gpd/acre)) x sewerage loading factor					

Area excluding 25%+ slopes and wetlands	56,544	Sq. Ft.
Town of Tuftonboro requires 1 acre minimum	1.30	Acres

Frontage per Z.O. Sec. 1.1.22	165.7'
Frontage per Reference line	167'+

Lot 2-8 Soil Group 3 Total Area (sf) =
54,870

NHDES Soil Group & Slope	area (sf)	% of total lot area	NHDES Min. Lot Size (sf)	% of NHDES Lot size
Group 3, slope 0-8%	23,321	42.5	48,000	48.6
Group 3, slope 8-15%	18,671	34.0	53,000	35.2
Group 3, slope 15-25%	8,009	14.6	62,000	12.9
Group 3, slope 25-35%	902	1.6	72,000	1.3
Group 3, slope 35%+	281	0.5	NA	
Group 5 soils (wetlands, PD, ALL 0-8%)	3,686	6.7	90,000	4.1
Total	54,870	100.0	Percent of Min. lot size per NHDES requirements (must be 100%)=	**102%**

NHDES Lot loading calcs

Lot area		**54,870**	**NHDES SEWERAGE LOADING FACTOR**	GPD	
minus well area		17672			
Asummed all well area to be Group 3, 8-15%			Worst case		
lot area for loading			**USED AVERAGE FACTOR (1.6,1.76,2.08)**		
Remaining land		37,199	1.81	944	**Total GPD**
				6.29	**Bedrooms**
				6	**Allowed bedrooms**
Lot Size = (Q(gpd)/2,000 (gpd/acre)) x sewerage loading factor					

Area excluding 25%+ slopes and wetlands	50,001	Sq. Ft.
Town of Tuftonboro requires 1 acre minimum	1.15	Acres

Frontage per Z.O. Sec. 1.1.22	197.4'

Frontage per Reference line	203'+

Lot 2-9
Soil Group 3
Total Area (sf) =
51,919

NHDES Soil Group & Slope	area (sf)	% of total lot area	NHDES Min. Lot Size (sf)	% of NHDES Lot size
Group 3, slope 0-8%	25,695	49.5	48,000	53.5
Group 3, slope 8-15%	21,092	40.6	53,000	39.8
Group 3, slope 15-25%	2,337	4.5	62,000	3.8
Group 3, slope 25-35%	401	0.8	72,000	0.6
Group 3, slope 35%+	353	0.7	NA	
Group 5 soils (wetlands, PD, ALL 0-8%)	2,042	3.9	90,000	2.3
Total	51,920	100.0	Percent of Min. lot size per NHDES requirements (must be 100%)=	**100%**

NHDES Lot loading calcs

Lot area		**51,919**	**NHDES SEWERAGE LOADING FACTOR**	GPD	
minus well area		17672			
Asummed all well area to be Group 3, 0-8%			Worst case		
lot area for loading			**USED AVERAGE FACTOR (1.6,1.76,2.08)**		
Remaining land		34,248	1.81	869	Total GPD
				5.79	Bedrooms
				5	Allowed bedrooms
Lot Size = (Q(gpd)/2,000 (gpd/acre)) x sewerage loading factor					

Area excluding 25%+ slopes and wetlands
Town of Tuftonboro requires 1 acre minimum

49,124	Sq. Ft.
1.13	Acres

Frontage per Z.O. Sec. 1.1.22 259.0'

Frontage per Reference line 270'+

Lot 2-10
Soil Group 3
Total Area (sf) =
51,174

NHDES Soil Group & Slope	area (sf)	% of total lot area	NHDES Min. Lot Size (sf)	% of NHDES Lot size
Group 3, slope 0-8%	27,073	52.9	48,000	56.4
Group 3, slope 8-15%	19,163	37.4	53,000	36.2
Group 3, slope 15-25%	3,518	6.9	62,000	5.7
Group 3, slope 25-35%	777	1.5	72,000	1.1
Group 3, slope 35%+	444	0.9	NA	
Group S soils (wetlands, PD, ALL 0-8%)	199	0.4	90,000	0.2
Total	51,174	100.0	Percent of Min. lot size per NHDES requirements (must be 100%)=	100%

NHDES Lot loading calcs

Lot area		51,174	NHDES SEWERAGE LOADING FACTOR	GPD	
minus well area		17672			
Asummed all well area to be Group 3, 8-15%			Worst case		
lot area for loading			USED AVERAGE FACTOR (1.6,1.76,2.08)		
Remaining land		33,503	1.81	850	Total GPD
				5.67	Bedrooms
				5	Allowed bedrooms
Lot Size = (Q(gpd)/2,000 (gpd/acre)) x sewerage loading factor					

Area excluding 25%+ slopes and wetlands	49,754	Sq. Ft.
Town of Tuftonboro requires 1 acre minimum	1.14	Acres

Frontage per Z.O. Sec. 1.1.22	359.6'
Frontage per Reference line	369'+

Gmail **Cindy Pratt <sbcinderelli@gmail.com>**

Re: farm island

Randy Owen <randylowen@gmail.com> Thu, Oct 10, 2019 at 10:48 AM
To: Cindy Pratt <sbcinderelli@gmail.com>

Randy Owen 603-622-3000

---------- Forwarded message ---------
From: **Taylor, Mark** <taylorm@nhec.com>
Date: Thu, Oct 3, 2019, 4:46 PM
Subject: RE: farm island
To: Randy Owen <randylowen@gmail.com>

Hi Randy,

As far as the ownership and maintenance of the existing underwater cable is concerned, this is considered "existing", NHEC owned and maintained and subject to all agreements/easements.

As for the proposed underground vaults and cables on the island I will use references from NHEC Handbook Section 2: Underground Service Installations;

• The applicant for service will provide, without expense or cost to NHEC, the necessary permits, consents, or easements for a satisfactory right of way for the erection, maintenance and operation of a line, including the right to cut and trim trees and bushes wherever necessary along private property

GENERAL INSTALLATION REQUIREMENTS FOR UNDERGROUND FACILITIES

• Underground electric service and meter location will be established by NHEC upon site visit.

• The Member shall furnish at their expense and adhere to NHEC specifications all trenching, backfilling, manholes, conduits, ground wire and vaults necessary for the installation of underground electric distribution facilities.

• Red Caution Ribbon shall be furnished and installed by the Member. This shall be installed the entire length of the trench above the conduit, a foot below finished grade.

• A pulling rope, 1/4 inch diameter polypropylene, shall be installed in each conduit.

• Trenches shall be as straight as possible with no more than 180° of bends which will consist of no more than two 90° sweeps where the run transitions from underground to above ground. Routes through unstable soil such as mud, shifting soils, or other hazards should be avoided.

• Any significant change in the direction of the run shall be accomplished by use of an appropriate pull box.

• Underground facilities shall be a minimum of schedule 40 PVC and maintain a minimum depth of 36 inches to finish grade

• The ends of the conduit shall be plugged during construction to prevent the entrance of foreign matter. The conduit shall be terminated as follows:

• Conduit shall terminate not more than 3 inches inside a vault. Whenever possible the conduit should run straight into the vault without sweeps or bends. Where the conduit enters the vault, it shall be sealed with hydraulic cement to prevent water, soil and rock intrusion.

• All ends, joints and internal finish of the conduit shall be free of sharp edges or burrs which could damage the cable.

• All conduit joints shall be glued as recommended by the conduit manufacturer. Colored PVC cleaner shall be used before applying glue.

• The Member shall be responsible for having the conduit/vault system ready, prior to NHEC personnel installing the cable. Any additional changes, repairs or other work required to the underground conduit/ vault system in order for NHEC personnel to pull the cable into the conduit shall be the responsibility of the Member.

• Member shall be responsible to cover all open holes or trenches to mitigate any hazardous conditions at the job site prior to NHEC starting their work.

PRIMARY

• Sweeps: Electrical grade steel 90° sweep(s) with a minimum radius of 36 inches shall be required where the run transitions from underground to above ground. Sweep shall not be used in the underground portion of the primary run.

• Joint trenches: When electric facilities are installed jointly with communication facilities, clearance between conduits have to maintain 12 inch, the #6 AWG copper bonding conductor, should be readily accessible with adequate length at both ends and shall be installed at each vault and pad mounted equipment location between electric and communication facilities. Refer to Construction Standard IU Primary Trench, located on page 32.

• A drainage system must be installed to daylight in all vaults and sub surface structures. In areas of high water table, vaults and conduit may need to be elevated to promote effective drainage.

• The maximum length between vaults is no more than 600' without Engineering approval.

• All primary conduits entering vaults must use the pre-casted knockouts located on the long end of the vault.

• Loop feeds are required when two or more underground transformers are installed. Refer to Construction Standard URD IB, located on page 24.

Conduit and Trench Inspection Notice All contractors and developers requesting underground inspections shall call the Member Solutions Department at 1-800-698-2007 a minimum of 2 business days before the trench is started to make arrangements for an on-site inspection by NHEC Construction personnel. NHEC will conduct an on-site inspection within 2 business days of the inspection request. At the time of inspection NHEC will verify the following:

• Proper trench depth and location

• Conduit Schedule • Installation of copper wire as required

• Conduit properly bedded in sand or select backfill Refer to Section 2: "Underground Service Installations, Permanent & Temporary" Once certification has been completed, an NHEC "approval" sticker will be placed on the conduit in order to notify all parties that the underground electrical system has been inspected and approved. Failure to comply with this requirement will result in the system being re-exposed so that the proper inspection can be performed. No electrical service will be installed until the inspection sticker is in place.

Please be prepared to give all information regarding your project to our Member Solutions representative, including your Service Order # _____. CONTACT NUMBER: 1-800-698-2007 All Contractors and Developers Requesting Underground Electrical Service shall call the Member Solutions Department of New Hampshire Electric Cooperative a minimum of 24 hours before trench is started to make arrangements for on-site inspection by NHEC Construction Personnel. NHEC will conduct an on-site inspection within 2 working days of the inspection request. All trenches will be left open so that the conduit system can be certified as meeting the "Installation Requirements for Underground Conduit Systems" as listed in the "Handbook for Electric Service" provided by NHEC.

Once certification has been completed, an NHEC "approval" sticker will be placed at the appropriate location on the meter socket to notify all parties that the Underground Electrical System can be installed. Failure to comply with this requirement will result in the system being re-exposed so that the proper inspection can be performed.

See attachment for NHEC Construction Standard for Underground Trenching.

Once the above has been completed, NHEC will then install all cables, transformers and other necessary equipment needed to supply power to Members meter socket. Once power has been supplied NHEC will take over "ownership" of the underground service and maintain for the life of the service in accordance to agreement of easement.

Simply put, you install the conduits and trenching, vaults and drains, pull ropes, etc. as spelled out above and in more depth within NHEC's Member Handbook, make payment in accordance to NHEC Schedule of Fees and provide easement, NHEC will install wires/cables and maintain

for the life of your service(s).

Please feel free if you have any further questions.

Best Regards,

Mark

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Mark Taylor

Certified Line Design Technician - **Working Foreman**

192 Route 25, **PO Box 297 | Meredith, NH 03253 USA**

T: 603-707-5710| F: 603-279-7587

taylorm@nhec.com | www.nhec.com

From: Randy Owen <randylowen@gmail.com>
Sent: Thursday, October 3, 2019 7:35 AM
To: Taylor, Mark <taylorm@NHEC.com>
Cc: Cindy Pratt <sbcinderelli@gmail.com>; Andrew Sullivan <andy@andrewsullivanlaw.com>; Scott Frankiewicz <scott@nhlandconsultants.com>
Subject: Re: farm island

Mark,

The town is requesting details of ownership and maintenance of the under water cable and the underground cable and vaults proposed on the island. Can you please call me when you get a chance. FYI we have a meeting tonight. I hate this 11th hour crap and certainly apologize.

Thank you Randy Owen