

READINGTON TOWNSHIP BOARD OF HEALTH MEETING

October 20, 2010

Chair William C. Nugent called the meeting to order at 7:05 and announced that all laws governing the Open Public Meetings Act have been met and that this meeting has been duly advertised.

Attendance Roll Call:

Christina Albrecht	present	William C. Nugent	present	Wendy Sheay	absent
Jane Butula	present	Tanya Rohrbach	present	Donna Simon	present
Beatrice Muir	absent				

Also Present: Hunterdon County Health Dept.: Debra Vaccarella
Board of Health Engineer, Ferriero Engineering, Inc. representative Joe Kosinski

Not in Attendance: Board of Health Attorney, Stanley T. Perlowski, Esq.

A. APPROVAL OF THE MINUTES

1. **Minutes** of July 21, 2010. (-Albrecht, Butula, vote).

Deferred to 11/17/10.

2. **Minutes** of September 15, 2010. (-Rohrbach, Sheay, vote).

A **MOTION** was made by Ms. Butula to approve the minutes. The motion was seconded by Ms. Albrecht. On roll call vote, the following was recorded for approval of the 9/15/10 minutes:

Ms. Albrecht Aye Ms. Butula Aye Ms. Simon Aye Chair Nugent Aye

B. CORRESPONDENCE

1. **NJLBHA – Newsletter – Summer/Fall 2010.**

Ms. Butula noted for future reference that the Board received the information for the BOH Member Training Certification too late to attend. Chair Nugent stated that he also would have liked to attend.

2. **Block 65/Lot 21 – NJDEP –dated 8/9/10 – No further action letter.**

3. **Suspected Hazardous Discharge Notification** letter dated 9/15/10 regarding oil heating #2.

4. **Suspected Hazardous Discharge Notification** letter dated 9/21/10 regarding oil heating #2.

5. **Block 53/Lot 9.04 – NJDEP –dated 9/14/10 – UST No further action letter.**

6. **HCDH LINCS – dated 9/29/10 – Public Health UPDATE – Influenza-Like Illness (ILI) Activity**
MMWR Week 37: Week ending 9/18/10.

7. **HCDH LINCS – 9/29/10 Public Health UPDATE – 2010 Influenza Clinics: (posted on township website)**
Chair Nugent noted that the flu shots are a combination of the standard flu shot and H1N1.

Ms. Vaccarella confirmed.

- 10/9/10 10am – 4pm @ Voorhees High School in Lebanon Twp.

- 10/9/10 1pm – 7 pm @ J.P. Case Middle School in Raritan Twp.

8. **Block 48/Lot 21.14 – NJDEP –dated 9/20/10 – No further action letter.**

9. **Suspected Hazardous Discharge Notification** letter dated 10/2/10 regarding oil heating #2.

10. **NJLBHA – Annual Conference – 10/23/10.**

C. SEPTIC REPAIRS

Chair Nugent noted that there were no repairs.

D. OLD BUSINESS

1. **Rabies Clinic –10/2/10, 9:00 – 11:00, at Three Bridges Firehouse.**

Ms. Petzinger stated that approximately 60 cats and dogs were inoculated.

Chair Nugent asked if there were any concerns or suggestions regarding future clinics.

Ms. Petzinger stated that it would be helpful to the public if more people were aware of the clinics.

Some suggestions were: publishing in the Readington News, notices in the post office and area businesses, and the HSA through the schools, also posting a notice at the clinic that residents may bring their pets to clinics in other townships.

2. **Readington Township Land Use Ordinance #22-2010.**

Chair Nugent stated that he had spoken to Mr. Hansen regarding this ordinance and wanted to discuss it with counsel before forwarding to the Township Committee.

E. NEW BUSINESS

1. DEP Press Release: Safety in Battle Against Bed Bugs www.readingtontwp.org

2. Compliments on HC Special Collection Date for Electronics - Saturday, October 13th.

Chair Nugent stated that he had attended this and was very impressed with how well organized it was run, and how quickly the process was.

3. HC Hazardous Waste Clean-up Day - Saturday, Nov 13th.

Chair Nugent noted this date, and that everyone should remind their friends and neighbors.

4. Readington Township Volunteer Dinner, October 7, 2010.

Ms. Simon congratulated Board of Health Chairman William C. Nugent for being awarded Volunteer Of The Year and thanked him for all of his years of dedication and expertise, it was very well deserved.

Chair Nugent stated thank you, and that he wanted to mention that becoming a volunteer is something that is very personal and individual. Staying a volunteer is something that really matters and is based upon enjoying what you are doing and feeling like you are making a difference, and the people that you work with. If it wasn't for the rest of the boardmembers, and Lorraine, Deb, Ferriero and counsel that make his job easier, he may not still be here. In reality, he accepted that award thinking of all of the people involved, so a sincere thank you.

F. APPROVALS

Category A. – Single Lots

Heard @ 7:30 p.m.:

1. Block 51/Lot 2.15 – Dig Engineering, Hall, Strawberry Court

Escrow fees paid 9/22/10; ck# 111, \$750.00.

Mr. Charles Digney, Dig Engineering Co., NJ licensed engineer appeared before the board. The design presented to the board was for the previous owners, the current owners, Mr. Kenneth and Ms. Patricia Hall recently purchased the property. The proposed septic system is in the same spot as the original system because there is nowhere else on the property suitable. It is an odd shaped piece of property with some constraints, they have met most of the requirements. They are requesting a waiver for the drainage easement on the adjacent property that leads to the yard drain in the back of the property, they are 25' away from it. The other issue is that they are about 90' from the stream, which varies in its course. The proposed system is in the same spot as the existing system, so they are no closer. The proposed system is a pump system, they are able to blend the final grade into the high side of the lot, and come out about 1 ½' on the low side. The wall along the driveway will be extended another 10 – 15' to block the taper on the fill. It is very straightforward.

Chair Nugent asked for a more detailed explanation of the wall and the taper.

Mr. Digney stated that there is currently a straight section of wall that comes out from the house, in the upper front part of the bed they have built up the corner about 2', and tapered down at a 3 to 1 taper, and have put the wall there because the driveway drops down and there is just ground there now, it tapers off dramatically. The wall is somewhat of a retaining wall, but is only 1 ½'.

There was some discussion of a GP25 permit.

Ms. Butula asked regarding soil log 1, there was a 77" seepage but the static water level after 24 hours reached 57", why was that since you were at regional zone?

Mr. Digney stated 57" is the regional zone, the 77" on the form is a mistake on the form.

Chair Nugent asked how the existing system is failing?

Mr. Digney stated that he was called in after the fact, it was his understanding that the bed was flooded, and apparently determined that the system was failing.

Chair Nugent confirmed that the adjoining property owners had been noticed.

Mr. Digney stated yes.

Chair Nugent asked what is it about the proposed system that is better than the existing system?

Mr. Digney stated for one it is higher, the existing system is deep underground, the seasonal high water table is 57", the bed is laying in that water table. They have a 4 – 4'3" gap between the bottom of the gravel and the top of the seasonal high water table that gives enough room to get the zone of treatment,

then you go into the zone of disposal. The bed is too deep right now based on where the water table is because the system is not pumped and they couldn't get the effluent up.

The current tank is at the elevation of 100, which is about 2' below grade, putting the top of the bed at about 2 ½' below existing grade.

Chair Nugent stated that would be 30".

Mr. Digney stated that's the top of the bed, the problem you run into with the zone of treatment, it does give you a hydraulic head in order to keep the water flowing down to the ground, if you are putting your effluent into *inaudible* you don't have any head on it and after awhile it just stays there *inaudible* solids, *inaudible*, so your biomat *inaudible*.

Chair Nugent stated so you are suggesting that the 2' of separation between the likeliness of where the current bet laterals are and the determined water table was insufficient to allow that water to dissipate?

Mr. Digney stated it should have been pumped to start with, he is not sure of the age of the house.

Mr. Christiansen, 3 Strawberry Court, stated that the homes were built in 1976.

There was some discussion of the regional zone and seasonal high water table.

Chair Nugent stated in summary, albeit Form 2b that Mr. Digney submitted and the review letter from the county may have indicated the regional zone to be 77", the design has been based upon the 57".

Mr. Digney stated that the Form 2b would be corrected.

Chair Nugent asked Mr. Digney, referring back to the discussion on the property wetlands, etc., if he had walked the property within 50 – 150' of the proposed septic ?

Mr. Digney stated yes, and the wetlands tend to be on the other side of the conservation easement.

Chair Nugent confirmed that was to the northwest?

Mr. Digney stated yes, and to the north, but the ones to the north are far back.

Chair Nugent stated that it is 90' from the edge of the proposed excavation of the bed to the center of the stream flow? And the wetlands are to the other side of the stream?

Mr. Digney stated yes, that bank of the stream is probably 3' higher than the stream, to cut where the stream flows is significantly down, about 3'.

There was some discussion of the grading away from the proposed disposal area.

Chair Nugent asked if there is an indication on the map of where that grading will be outward, where the toe of the mound will conclude?

Mr. Digney stated it shows on the dotted lines around the bed the difference in the existing grade and the final grade. Closer to the house, up to where the tanks are and towards the driveway you have 104 and tapers down to 3 to 1. On sheet #2, you have the cross section of how the bank tapers. The 104 on the plan ties into the grade on the upper side of the bed, and it goes around the bed. It is the highest point. Halfway between there and the driveway there is a 102 final grade.

Ms. Vaccarella stated if they needed to bring this down to a complete 3:1 all the way to existing grade, it would be coming down another 1 1/2' which would be 99 ½. That means it is not a complete 3:1 slope. It still means that a waiver is required because of the fact that they do not have a full and complete 3:1 slope, or the toe of the mound.

Mr. Digney stated where he has the slope it is 3:1, the waiver is not on the angle of the slope, it is on the length of the slope.

Chair Nugent asked if this would compromise the function of the proposed septic system?

Mr. Digney stated it would not. If they had changed the slope to 2:1, they wouldn't have needed the wall, but a 2:1 is a more severe slope than a 3:1, since there is a lot of slope on this lot to start with, and most of it is 3:1, it is good to keep 3:1.

Ms. Butula asked if they were trapping surface water behind this wall?

Mr. Digney stated no.

Ms. Vaccarella asked if the wall would have a drain at the bottom of it ?

Mr. Digney stated there would be a drain at the bottom, it is a fieldstone wall with natural drain anyway, it is tied into the existing wall and going up the driveway.

Chair Nugent asked if the height of the retainer wall was about 1 ½', with some sort of a drain at the base of the wall that would be about 1 ½' into the ground, why wouldn't that catch some effluent that traveled horizontally instead of vertically ?

Mr. Digney stated that the effluent shouldn't be in that area, that isn't the way the system works. It goes down and *flowers* (?) around the area, you are significantly far away from that area. You are just talking about something at the bottom of the well that may or may not be a pipe.

Chair Nugent asked what is the distance between the wall and a vertically drawn line to the excavated area of the septic field?

Mr. Digney stated approximately 18', you are going down and the water tends to seek its own height. The water is not coming out in that area now, more water and effluent will be put into that area in the form of a functioning bed, that bed will purify the effluent in the first 4', it will then go into the zone of disposal which is going to be in the water table, and that will maintain the water table and the flow of the water, but it will be purified effluent by the time it gets to the water table and it will be going out. The reason the basin flood was done was to prove it would go out through that area, which was a porous area.

Ms. Butula asked if the distances between the proposed area and the neighboring wells and septic was appropriate ?

Mr. Digney stated yes, they have the 150' radius, there are no wells within the 150' radius on the adjoining properties.

Ms. Butula confirmed that that was indicated by the big circle, and was it included in the notes on the plan?

Mr. Digney stated yes, it is indicated by the big circle, and usually he indicates no septic storm sewers or wells within 150' of the proposed disposal area except as shown.

Ms. Albrecht asked if burying the existing septic soil was going to change the elevation in the front yard ?

Mr. Digney stated it is not, when you bury existing septic soil you have a problem getting rid of existing septic soil, you can bury it on your property, you cannot bring it to someone else's property. You can bring it to an approved landfill which can be expensive.

Chair Nugent stated that adjoining property owners were noticed, and asked if anyone would like to come up and speak?

Mr. John Christensen and Mrs. Sally Christensen, 2 Strawberry Court addressed the board. Ms. Christensen stated that they adjoined the Halls, 5 Strawberry Court to the east. The drainage easement is located along the edge of the property, and when reviewing the plans, noticed that their well is not indicated on the plan. Their well is alongside of their driveway which borders the property.

Mr. Christiansen stated when you look at the plan, their driveway is to the right, and their house is to the right. On the cul-de-sac, theirs is the first Dutch Colonial on the cul-de-sac.

Ms. Butula asked if they had heard her question that the 150' was the exclusion circle?

Ms. Christensen stated they just want to be sure, their well is not capped, so they are not exactly sure where it is.

Ms. Vaccarella stated that when the County did their site inspection, Ms. Faltings had noted a concern regarding the well location.

Ms. Christensen stated that they have a copy of their survey, but it is not exact. Their property is to the east of the subject property, when viewed on the map, it would be to the right.

Ms. Butula confirmed that their driveway runs right along the drainage easement.

There was some general discussion of the application process for a GP25.

Chair Nugent stated that the applicant engineer needs to include on the map the exact location of the well on the property at 2 Strawberry Court. The homeowners have indicated that they are willing to help that happen. Additionally, the well on the property to the west should be included.

Ms. Vaccarella stated that her concern would be the burying of the existing septic spoils.

Mr. Christensen stated that their main concern is their drinking water.

Ms. Vaccarella stated perhaps the Halls could get a statement from the property owners to the west as to where their well is and if they have a concern.

Mr. and Mrs. Christiansen stated that an engineering firm had reviewed their plan and given their opinion that they should have no problem with it. Also, their pump had been serviced by a well drilling company, so perhaps their records could offer some help in locating the well.

Chair Nugent stated that once the plans had been revised, they would be resubmitted to the Board of Health and would be available for review. In summary, Form 2b is in error, the location of the well on 2 Strawberry Court, as well as the property to the west has to be identified.

Mr. Bob Colburn addressed the board, stating that he had done a septic repair at 3 Strawberry Court about 15

years ago. Regarding wetlands in the area, that is actually a constructed water retention basin in front of the house, which does flood, as it is designed to do.

Mr. Digney stated that he was not exactly sure what information the board wanted regarding wetlands. The reason you get a GP25 is because you can't locate the system outside the transition area. The state DEP has recognized that and that is why they came up with the GP25, it typically is a rubber stamp and is only good for replacing existing malfunctioning septic systems and is only good for replacing existing malfunctioning septic systems for dwellings that have no increase in use. Here they are replacing the bed in roughly the same spot, there is no place else on the property to put it.

Chair Nugent asked what the wetlands delineation process would be.

Mr. Digney stated a wetlands person would delineate wetlands, then you would have to get a survey back in there and survey the points that were delineated, then on the back of the property would be shown the conservation easement behind the stream, at the far side of the stream to the west, the distance to the proposed disturbance area is roughly 90 – 100', the required buffer zone is generally 150', but it depends on the wetlands. That is what the GP25 would be for.

Chair Nugent stated so the end result would be a GP25 regardless.

Mr. Digney stated that is right.

Chair Nugent stated that Mr. Digney has testified that there is no other spot on this property that would get them farther away from the wetlands and the wells.

Mr. Digney stated that is true, that is one of the statements that is in the letter that goes to the DEP.

Ms. Vaccarella stated that she is not personally aware of any other residential lots that this board has requested a GP25 permit on before they granted approval of the soil testing, however, the County does not approve any applications before the granting of a GP25. Also, there have been numerous applications where there is a question of whether or not there are wetlands on the property, that is a whole other issue, in those cases, the GP25 is basically the applicant acknowledging that they are in a wetlands or wetlands transition area. The applications are not going to be approved or released for construction until the GP25 is granted by DEP.

Mr. Digney stated if there is any question about wetlands, they will automatically go for a GP25.

Chair Nugent polled the board to find out if they would require the applicant to provide additional information on their wetlands.

Ms. Rohrbach stated they already know that there is a wetlands buffer, and it doesn't matter because you can't move it, so it is not necessary in this case.

Ms. Albrecht stated that she agreed with Ms. Rohrbach.

Ms. Simon stated that considering there are not a lot of alternatives, and is it secure, she would say not.

Ms. Butula stated she believes that what is fair for one is fair for another, so henceforth, the way she will vote is changed forever.

Chair Nugent stated that the consensus is that the engineer has put on the record that wetlands do exist on the property, he has indicated on the application that a GP25 is required, so it is his belief that that is sufficient.

Mr. Digney stated he would provide new maps, and the issue of the 2 wells, and relocate the *inaudible* (burial ?)

Chair Nugent stated for the record, this property was noticed for and is held over to the next meeting.

Heard @ 8:45 p.m.:

2. Block 39/Lot 3 – Thos. L. Yager & Assoc., Nahvi, Route 22East

Escrow fees paid 9/1/10; ck# 4192, \$750.00.

Mr. Jim Hill, Thos. L. Yager & Assoc., NJ licensed engineer, Mr. Doug Fine, ACT Engineers, NJ licensed engineer and Ms. Lloyd Tubman, Archer & Greiner, Flemington, NJ represented Mr. Hassan Nahvi before the board. Mr. Hassan Nahvi was also in attendance.

Mr. Fine stated that the soils testing was performed under his supervision in 2006.

Ms. Tubman stated that the background on this application, Block 39/Lot 3, Route 22, next to Pelican Pool. This property was the site of a former retail building for which Mr. Nahvi obtained a demolition permit. The intent was to partially demolish and to reconstruct the building, 1400 square feet. When the structure of the

building was removed it was determined that the foundation was also faulty. Once that was removed, the zoning officer determined that this was no longer a pre-existing non conforming use, it is a demolished structure so that it has to be moved to the current setback line. For that reason a site plan was developed which will respect the front yard setback. The septic was also older and for this small building Mr. Nahvi is going to have to replace the septic system. This will be a pump system, we recognize it will require a deed restriction. Chair Nugent stated that the map only indicates retail space, are there any details available on the use? Ms. Tubman stated at the Planning Board level, it may be proposed for use as an antique shop initially, however, if it is approved by the Planning Board it may in the future change to another retail use. Chair Nugent stated NJAC 7:9A 7.4 regulated or recommended volumes based upon categories did not include retail establishments.

Ms. Tubman stated retail use is .125 GPD under DEP regulations, the regulation cited by Chair is much more particularized, but that is the general requirement.

Chair Nugent stated perhaps they could get into it further after discussion with Mr. Hill.

Mr. Hill stated if you compared it to sewers, retail and office are treated the same, generally when working with the County Health Dept. they treat it in much the same manner. In a 1400 sq. ft. building you are going to have maybe 1 tiny bathroom, and 2 employees in the building. It has happened before that retail and office are both .125 GPD.

Ms. Tubman stated the rules as cited by Mr. Hill are very specific for buildings that generate for example a fast food restaurant that has an assigned capacity; or a sit down restaurant or church all have the same, they are all breakouts, for DEP purposes, because they have a greater anticipated generation of fluids.

Mr. Hill stated a more particular answer is that 7:9A does recognize shopping centers and stores at .125 and that is where it would be interpreted for retail space.

Ms. Vaccarella confirmed that the property would be served by public water.

Ms. Tubman stated yes.

Ms. Vaccarella stated the only time they try to pinpoint the number of people working at a facility is when they are served by an onsite well because they have to know how it is going to be classified for further use. Chair Nugent stated that was his concern that they were taking the most conservative quantity of effluent in the calculations.

Mr. Hill stated that soil logs had been done a few years ago, and due to some constraints, Mr. Nahvi had decided to use the existing structure, which didn't work due to the foundation. The plan that is before the board tonight for the location of the general building, the driveway location, the proposed location for the tanking system is pretty much what the Planning Board saw as a concept review. A couple of recommendations from them such as increasing the limit of disturbance so that the equipment can be driven down is not a problem because they are under the 1 acre of disturbance and significantly under ¼ acre of impervious area so the limit of disturbance can be doubled without running into anything. That may give some level of comfort to this board to know that there is more room to work around the septic tank and bed without being outside of the limit of disturbance. Basically, the testing was done with the intent of putting a bigger commercial structure on here in years past, but they have tried to work this around to service this as the absolute smallest system you could put on the property for the size of the building. With the type of soils on the property and the town's regulations, they knew they would have to do 8 weeks of monitoring, so that was set up to begin with. The system designed is a pump system, there wasn't quite enough grade to get to the back of the property with a gravity system, so they ended up with a pump system at some elevation above the surface, to be determined by seasonal high water table and the depth of the zone of treatment.

Chair Nugent questioned the 58 linear feet of 4" PVC that is running underneath the driveway area ? and is it noted on the map what is intended ?

Mr. Hill stated that will be encased, sleeved. They wanted to find out if it was conceptual.

Ms. Vaccarella stated since it is before the tank, it isn't the County's jurisdiction.

There was some discussion of the location on the map of the pit bail for the primary.

Ms. Tubman stated that the notation would be made on the map to include it.

Chair Nugent noted on the original application the engineer had indicated alteration, no expansion or change of use ?

Mr. Hill stated when they applied for the original structure; there was a letter from the County stating they could reuse the old system.

Chair Nugent stated that the application submitted to this board needs to be corrected.

Ms. Butula asked if the neighbors on either side had public water ?

Mr. Hill stated that they would confirm it.

Ms. Albrecht asked where the old system was located ?

Mr. Hill stated that the best that they could figure from prior to 1990 is that it was located down along the property line which runs in back of the building, but they couldn't confirm it was in usable shape.

Chair Nugent asked that the abandonment of the old tank be included on the plan.

Chair Nugent recapped the items for resubmission: the exact location of the permeability test on the map; the well that will be abandoned; an existing septic tank that will be removed; an existing field; location if there are adjoining wells; the application cover sheet.

Mr. Hill thanked the board for encouraging people to do well testing. South Branch has extended their program to 18 different townships.

Board member Ms. Christina Albrecht departed at 9:15 p.m.

Heard @ 9:25 p.m.:

3. Block 38/Lot 38.19 – ACT Engineering, Patel, N. Honeyman Rd.

Escrow fees paid 5/18/10; ck# 331, \$750.00.

Mr. Doug Fine, ACT Engineering, NJ licensed engineer appeared before the board representing Mr. Hitesh and Ms. Ushma Patel, 16 North Honeyman Road. Mr. Eric Valentine also appeared before the board. Mr. Fine stated that the Patels have been aware of some problem with their septic system for about 4 years. Some soil logs and permeability tests were performed in 2006 by another engineering firm. They did not get any permeability tests that were adequate for the design of the septic system. The Patels monitored the system and curbed their water usage during wet weather.

The original engineering findings were confirmed in 2010, that there was no measurable permeability via pit bail, basin flood. In fractured shale you really have no other choice other than a percolation test. Based on the small lot size and the well circle taking up the bulk of the center of the property, the Patels contacted ACT Engineering because of their experience with alternative technologies, and were aware that they needed some type of advance treatment system. Bayer-Risse performed about 7 soil logs scattered throughout the property. In 2010 ACT tried to dig in areas that they hadn't tried and essentially came to the conclusion that there weren't suitable pit bail or basin flood locations. They thought of a drip dispersal system and tested accordingly. Basically the subsurface, the shale seem to be impermeable. Nothing done by either Bayer-Risse or ACT Engr. seems to move any water whatsoever, they did not encounter any groundwater, so they performed percolation testing in the hopes of being able to design a drip dispersal system which will utilize the permeability of the shallow soils and they are not looking to dispose of the treated effluent at a tremendously deep location. It is different than a conventional system, the permeability required spreading the water out further. The proposed disposal area is typically somewhat larger than a conventional system, in this case they designed to the highest mottling encountered. Because the shallow mottling, at 20" in 504-3, and 504-4 was 30", in order to design a separation between a drip tube and the highest regional ground water table the type of drip system rather than being drip tubed into the native soil they need vertical separation which gives them a "mounded" drip field to get their separation. The way to do this is to put the system in a bed, the drip tube, following the New Jersey Guidance document for the sizing of the drip field using the permeability in the percolation tests that were performed so what you have is a drip dispersal field that uses American on sites drip system. That is the disposal mechanism, but they also have to have the ability to treat the water prior to disposal, and the treatment system they have proposed is a Puroflo peat biofilter system that incorporates one treatment chamber per bedroom in the house. This existing 4 bedroom dwelling with no expansion proposed. The dispersal is accomplished through the drip dispersal field.

There was some discussion of the recommended number of chambers per bedroom.

Mr. Fine stated the recommendation is one per bedroom.

Ms. Butula stated that Mr. Fine is really applying for 2 variances and 1 waiver, the pump being the waiver, the peat biofilter would be 1 variance and the drip dispersal would be the other.

There was some discussion of the age of the existing system, and the history of the biofiltration systems.

Ms. Butula stated that one of her concerns is the involvement and knowledge of the owner and consent to cooperate with the maintenance of the system, and asked that the owners attend the next meeting.

Mr. Fine stated that he felt the owners would be willing to attend the next meeting.

Chair Nugent stated that none of the soil logs got down to the depth of 10'. The logs done in 2006 were done by a case unit. Why wouldn't going substantially deeper have netted substantial permeability?

Mr. Fine stated massive rock. You have a massive rock substratum. Getting a larger machine to go deeper, you are still hammering out massive rock. This one is truly massive shale.

Ms. Butula asked about perc test 5 done this year. It was 12", the depth of the water was 9.5, does Mr. Fine still agree with .5? And does it change his opinion in the other corner 5.042, soil log 3 and you have this perc test 5? And is it too close to the well?

Mr. Fine stated no, it should be 2.5. The other area could not be a choice because there is a storm sewer in front of the property. After discussing it with Mr. Chalupa, and he pointed out the storm sewer as a water course and having setbacks of 100', it was determined to move it back.

Chair Nugent asked Mr. Fine to testify that wells on adjoining properties and wetlands were located, and there are none within 150'.

Mr. Fine stated that is correct, they visually located the adjoining wells and can testify that they are not within 150'.

There was some discussion of the inconsistency of references to 1A, 2A and 3A.

Chair Nugent asked that Mr. Fine make those revisions.

Chair Nugent asked Mr. Valentine if the same tubing and emitters are proposed for use in this application as were in another application which was presented previously?

Mr. Valentine stated yes.

Chair Nugent asked about the references to frost lines, does this system have the ability to be below the frost lines, and what is the frost line in this area?

Mr. Valentine stated that the frost line in this area is left up to the local engineer or installer to specify. The components to be below the frost line would be the conveyance line from the pumps to the filtration equipment and from the filtration equipment to the field. The drip line itself will have around 12" of cover over the top of it.

Mr. Fine stated that the frost line in this area is less than 3'. The standard installation below the frost line is considered to be 36". The components will be installed at that depth, and are noted on the map.

Mr. Valentine stated that on the map under "Cold Weather Installation Notes" is an entire section developed by their engineers in conjunction with NJDEP to address this issue.

Chair Nugent asked Mr. Fine what the conveyance lines would be, and could they be annotated for discussion purposes?

Mr. Fine stated just to familiarize the board with how this proposed system is going to flow, flowing out of the house by gravity into the septic, by gravity into a pump tank which is located in front of the dwelling, and pumping from the front of the dwelling into a manifold that feeds all four feet filters. The treatment occurs, the treated effluent is collected in a manifold that feeds into another concrete pump tank and that pump tank pressurizes the drip field. There is a proposed delivery line from the 1250 gallon concrete tank adjacent to the dispersal field, that would be the delivery line that is going up to the drip field, the conveyance. On the disposal field cross section and plan view on page 3, there is a note to install the supply and return lines 2 – 3', that is a standard note, below the frost line, in this case it is 3'.

Ms. Vaccarella questioned if the supply line that goes from the pump tank to the drip tubes is below the frost line and so is the return line that is at the return end of the system, how, if the tubes are at 12" deep, does is the line that is connecting those tubes more than 3' deep?

Mr. Valentine stated there is typically one penetration through the frost line with a vertical pipe that comes up and connects to the manifold for the drip tubing. That line actually drains down into the

manifolds, those manifolds could have standing water in them, they typically don't, probably because they could is why they end up staying below the frost line.

Ms. Vaccarella asked if then the return lines are fed into one single line at that point in time and then that line goes below the frost line and then returns by gravity to the pump tank itself, or do they return to the treatment units ?

Mr. Valentine stated that those lines tie back together under one, there is one penetration through, and that is still pumped under pressure back to the pump chamber. That is a pressurized line.

Ms. Vaccarella stated that since the whole system is pressurized, it is almost like pushing everything back through.

Mr. Valentine stated that is correct. There is actually a small quantity of water typically flushed back once a week, there is actually a closed valve on the back end of the system, once a week they open the valve and allow the system to increase velocity up to at least 2'/second to scour out all the tubing and that valve closes again.

Ms. Vaccarella asked if that were scheduled, or does someone go out there once a week ?

Mr. Valentine it is automatically scheduled thing that the control panel handles, it also counts it to make sure it is happening.

Chair Nugent asked how the manifold was designed to insure even distribution of the effluent across the 4 peat modules ?

Ms. Butula stated that that is one of the things she is going to request, and that counsel will want also is a more detailed efficacy and the engineering aspect of this system. The board has it for the other ones, but not for this one, and the board would like to see this information and keep it on file.

Mr. Fine stated the manifold is a PVC manifold with four T connections and there is a flexline that goes from the manifold to the bottom corner of the unit. The units come with PVC interior, inside the unit there is a pipe connection vertically, there is a manifold and a distribution lateral near the top within 4 – 5" of the top with a little peat covering it. That has holes in it, so in essence what they're doing is pumping, pressurizing the entire pipe, but then when it gets up there it *inaudible (flows ?)* by gravity out of the orifices, they are filling the entire pipe network all the way through the holes, so each hole is providing equal distribution, like pumping to a D-box.

Chair Nugent stated one of the classic problems with D-boxes is that after installation, they are no longer level and consequently the distribution of the effluent winds up not going to all the laterals as it should but only the ones that happen to be unlucky.

Mr. Fine stated one of the requirements of a certified installer requires that they are set on a stable base. They will be on a pad of stone that is level.

Chair Nugent stated so the manifold itself has no way of, in of itself, regardless of gravity properly regulating the distribution of the effluent to each module in even fashion, but they are depending on gravity for that to happen.

Mr. Fine stated that is correct, and they are depending on the installation, as with all systems.

Ms. Vaccarella asked if there were something electronic that would let you know that it was not being fed effluent ?

Mr. Fine stated there is nothing electronic, unless you wanted to put flow meters on. It is a visual part of the maintenance.

There was some discussion of the cost of a peat system being approximately 10% more than a standard system.

Chair Nugent stated if there were an operation and maintenance agreement document in place regarding the peat moss modules, as well as the drip dispersal systems, also, warranty information on the drip dispersal and the peat moss units, the board would like to have a copy of it.

Mr. Fine stated they do exist, and he would provide a copy to the board. The engineering documentation will have the operation and maintenance requirements for the system.

Ms. Butula stated that they did require it last time, and it was requested by board counsel.

Chair Nugent stated that the board would also like to see some documentation confirming that Mr. Fine is certified to design and install these systems.

Mr. Fine stated for the Puraflo systems he is certified as a designer, as well as to train installers, and operation and maintenance. The installation will be done under his direction as well as the manufacturers representatives.

The person actually doing the digging has not been determined yet, but it will be done by someone already certified, or in the process of becoming certified.

Chair Nugent asked that Mr. Fine make reference to that in some written document.

Mr. Fine stated that either himself or Mr. Valentine would take responsibility as the installer for the oversight of the installation.

Ms. Vaccarella stated that this is a fascinating system to see once it is installed, so the board may want to be contacted to see that prior to the final inspection.

Chair Nugent asked Mr. Valentine what differences there are in the drip dispersal component of this application vs the system that was previously presented by another applicant ?

Mr. Valentine stated basically the size, the controls would be a little different. There are 2 or 3 different lift pumps in the and they are utilizing the existing field and the new drip fields with the previous system. The hardware is identical, it is the exact same filtration system, the same valves and pumps, the design standards stay the same.

Ms. Butula stated that the board attorney is going to draft a release and indemnification agreement, so the onus is on the board to get it to Mr. Fine quickly so that it can be forwarded to his client.

Chair Nugent asked if the applicants for the proposed system were aware of the deed restriction and maintenance and if they had an attorney, because of the number of stipulations in the motion for the proposed system.

Ms. Butula stated that the content of the Guidance Document would be in the motion.

Chair Nugent asked the board if there were any further input, and stated to Mr. Fine that he had the list of items the board required.

Mr. Fine recapped that the board was looking for the Standard Operations Maintenance Contract, Design Certification, warranty information on both, operations maintenance and engineering data manuals for the systems. The installation will need to be done by a certified installer. Prior to installation the installer should be identified to the board. The indemnification agreement will be forwarded to Mr. and Mrs. Patel through Mr. Fine.

Mr. Fine asked if there might be more technical questions for Mr. Valentine, or if he could be excused from the next meeting.

Ms. Butula stated that she had gone through the other application in anticipation of review of this proposed system and she didn't see any further questions regarding the technical aspect forthcoming.

Mr. Valentine stated that if necessary, he would be available by phone during the next meeting.

Chair Nugent thanked Mr. Fine and Mr. Valentine.

G. ADJOURNMENT

A *MOTION* was made by Ms. Simon to adjourn at 10:35 pm, seconded by Ms. Rohrbach with a vote of Ayes all, Nays, none recorded.

Respectfully submitted:

Lorraine Petzinger
Board of Health Secretary