

SPRINGFIELD TOWNSHIP  
ZONING BOARD OF APPEALS  
REGULAR MEETING  
May 17, 2017

Call to Order: Chairperson Wendt called the May 17, 2017 Zoning Board of Appeals meeting to order at 7:30 pm at the Springfield Township Civic Center, 12000 Davisburg Road, Davisburg, MI 48350.

In attendance: Dean Baker  
Ginny Fischbach  
Denny Vallad  
Skip Wendt  
Bill Whitley

Absent: None

Also Present: Collin Walls, Supervisor

PUBLIC COMMENT: None

AGENDA:

**Board member Whitley moved to proceed with agenda as presented. Supported by Board member Vallad. Vote yes: Baker, Fischbach, Vallad, Wendt, Whitley. Vote no: None. Absent: None. Motion approved.**

CONSENT:

**Board member Whitley moved to approve the minutes of the April 19, 2017 meeting as presented. Supported by Board member Fischbach. Vote yes: Baker, Fischbach, Vallad, Wendt, Whitley. Vote no: None. Absent: None. Motion approved.**

NEW BUSINESS:

1. *Request from Kelly Katnik, 6032 Long Point Drive, Davisburg 48350 to install a septic system resulting in a variance in the distance from a septic system to the high-water mark of Big Lake of thirty-one (31) feet rather than the one hundred (100) feet required per Springfield Township Code of Ordinances, Chapter 40, Section 40-639.*

*The property that is the subject of the request is located at 6032 Long Point Drive in Springfield Township and is zoned R2 One family residential. P.I. #07-28-251-017.*

Ms. Kelly Katnik introduced herself to the Board members. She provided a brief history of her past requests for the property. She summarized her request and commented that she provided a new plan with the Advantex system 31 feet from the lake per the submitted site plan. She also provided a letter addressed to the Township from Big Lake residents and their signatures were included on an attached petition. She identified residents that were in the audience that had come to support her request. She stated that

this system is superior and will perform better than a conventional system at 100 feet from the water based on effluent performance and system monitoring.

Mr. John Katnik, Kelly Katnik's father, introduced himself to the Board members. He summarized, explained and reviewed the handout that he provided to the Board members regarding the superior performance of the Advantex system that is proposed based on his research. He included this handout to address the concerns that have come up in previous meetings regarding the protection of Big Lake. He stated that the information contained in the packet shows that Big Lake will be protected by the proposed system because of the effluent performance and system monitoring. The effluent coming out of the system is and will be better than an equivalent system 100 feet away without the Advantex system. Monitoring is provided with the Advantex system whereas a normal system does not have monitoring until there is a failure. He continued with his presentation summarizing and explaining the handout and packet information provided by the applicant via email on May 8, 2017.

Chairperson Wendt asked Ms. Katnik when she made offer to purchase the property, did she and the previous owner discuss if there was a reasonable sanitary system.

Ms. Katnik replied that at the closing, nothing was disclosed to her that this property had any type of non-conforming septic field. On the closing papers, it stated none. This led her to believe there was nothing there and the house just had a toilet and kitchen sink with no shower or additional plumbing. She wanted to purchase this home and turn it into a year-round residence. She did not know it was going to be this difficult to improve, repair, etc. to get a system in there to remodel the bathroom and have a functioning septic system that is safe.

Chairperson Wendt confirmed that in Ms. Katnik's conversation with the seller there was no conversation about the type of sanitary system that existed and the assumption was made on Ms. Katnik's part that she was purchasing a property with a well and a sanitary system that was in satisfactory condition.

Ms. Katnik replied this is correct. It wasn't until the Oakland County sanitarian came out to the property that they could identify facts and documents from 2014 that the previous owners did attempt to update the sanitary system and they were denied. There was very little talk at the closing and she did not meet the seller prior to the selling date.

Board member Whitley stated that the information that Mr. Katnik presented is better and more thorough data and analysis than either the septic system designer or the consultant has provided. He asked when he studied the performance of the various systems, did he find any information that described whether the performance of those systems was linear or nonlinear compared to the loading.

Mr. Katnik replied that he does not think it is linear, it is more nonlinear and it is primarily a question of long term life of the field which is something that they have not yet discussed. Some of the material he read indicated that a conventional system could last indefinitely and some 15-20 years. There is a technical term called HLR, Hydraulic Loading Rate, which is the amount of water that you are applying to that surface area. It

is on the design print for the proposed system. There are ideal HLRs for the existing soil types. He saw fundamentally that the HLR that are required are represented  $1/10^{\text{th}}$  of the actual ability of the soil to percolate water. If they evaluate the soil and they determine that it can handle 4.8 gallons per square foot per day, they would design to .48 gallons per square foot per day.

Board member Whitley confirmed that the designed safety factor is 10:1.

Mr. Katnik replied yes. The math models and data show that the hydraulic capability of the field to percolate water is nonlinear. It is very steep at first and then tapers off in 5-10 year time periods. The goal of the design is that when it tapers off, it becomes nearly level and that is where it is at the designed  $1/10^{\text{th}}$  of the initial capacity. There were some impacts on the curve which are driven by the effluent strength that is applied. The biomat created below the drain field begins to develop and it begins to do what it is supposed to do to treat the effluent but it also tends to impact the percolation capability of the soil. The goal is to design a system so that you can depend on the biomat development to treat the effluent but not that it gets so strong that it begins to become a restriction to the flow.

Board member Whitley asked if the nonlinearity was more a function of time, life of the field, than it is saturation rate and instantaneous loading of the field.

Mr. Katnik replied yes.

Chairperson Wendt asked about Cross Section BB showing stone and sand layers. He asked if the sand was going to be compacted.

Mr. Katnik responded he did not know and could not speak to the compaction of stone and sand. He stated that the research that he did indicated that the installation process is critical for these systems and “smearing” should be avoided.

Board member Fischbach asked if the effluent is tested as part of the maintenance monitoring.

Mr. Katnik replied that he read through the procedures and sniffing and taking sample was mentioned. The effluent is checked for turbidity during monitoring visits but he doesn't know if any laboratory testing is done.

Board member Fischbach stated that the paperwork indicates that no water softener can be put in to the septic. She suggested that it would not affect the mechanics but it would probably affect the biochemical reactions. She suggested that the “no water softener” language is in the motion so it would apply to this owner and all property owners after.

Board member Whitley stated that the water softener affects the chemical function that goes on inside the tank and the salt precipitates out and plugs the field. The point is a good one and any motion should clarify that.

Ms. Katnik stated that the installer will have the blueprints and she would assume that they are in charge and they would not do that. The homeowner must have these stipulations on the record.

Mr. Katnik commented that he attached an excerpt from the Oakland County Health Department rules in his packet and one of the rules is that the home owner must reapply for an operating permit every year and it is not transferable. He stated that he also did a review of the service and monitoring requirements and suggested that the homeowner is obligated to comply with the new Oakland County rules. Ms. Katnik must have on file with OCHD the service provider and he must be certified by the manufacturer. It is a requirement of OCHD that the person who is doing the monitoring is performing per the manufacturer. Ms. Katnik has the new permit from Oakland County approving the proposed system; it was provided in the Board members packets. There are specific comments regarding monitoring in the permit itself. The operating manual does speak to not using a water softener.

Board member Whitley stated that it is possible that the only check on this would be the sanitarian asking if the water softener goes into the field and he would rely upon the answer of the homeowner. He stated that it should be specified in the motion language and deed restriction.

Board members agreed.

Board member Vallad thanked Mr. Katnik for his thorough and informative presentation. It clearly shows what the system is capable of and how those numbers are derived. This is two stage treatment with the UV treatment added and that is better treatment than a conventional system would do.

Ms. Katnik confirmed that the design was changed and the current proposal offered this evening was 31 feet from the water's edge and it is 6 feet elevated instead of the 4.5 feet that was previously considered. The permit was granted by Oakland County Health Department.

**Board member Whitley moved that it is the intent of this motion that the requirements for any approved septic system on the subject site located at a 31-foot setback from the high-water mark of Big Lake be in every reasonable aspect as similar to the community septic ordinance as possible, as it relates to operation, maintenance, township approvals, and authority of the township intervention in the case of lack of system maintenance. It further is the intent of this motion that the actual controlling document and legal requirements be drafted by the Township Attorney, and then submitted back to the Zoning Board of Appeals for final confirmation. It is intended that the document to be drafted by the Township Attorney include the following particularly important points:**

- **Professional monitors, operators, maintenance and repair contractors must be engaged to oversee the monitoring, operation, alarm, maintenance and repair of the entire system including the AdvanTex with UV treatment and the drain field. Those individuals contracted by the applicant for this purpose must be approved by AdvanTex where**

**required, and the Township. The Township's preference would be a single contractor to handle all elements of the system. If it is shown that that a single contractor is not feasible then the individual contractors must agree to cooperate with the County, Township and each other in any agreements drafted for purposes of monitoring, operating, maintenance and repair of the system. The agreement or agreements developed by the Township attorney shall be similar in nature to the Township's Community Sewer System Agreements and shall be signed by Ms. Katnik and the contractor or contractors providing these services.**

- **The property owner/applicant on this variance cannot change the agreement and/or agreements indicated above without Township approval. The Township attorney shall draft a document to be signed by the property owner/applicant accepting the Township's authority and the conditions of this Board's approval and agreeing to allow the Township to monitor, operate, maintain, repair or replace any portion of the AdvanTex system and drain field if the owner fails to do so. Said agreement should also include provisions that allow the Township to place any costs of such actions, if required, to be billed to the applicant and if not paid within 30 days the Township will be authorized to place a lien on the property and given the authority to place the cost on the next tax roll for collection.**
- **The documents prepared shall include a requirement that alarms for this system that shall be installed with both audible and visual alarms at the site in addition to telemetric alerts to appropriate contractors for alerting any system malfunctions.**
- **Documents and agreements shall require at least bi-annual inspections of the entire system with copies of written reports being sent to the owner, Oakland County Health Department and the Township.**
- **Written reports on any maintenance repair or replacement shall also be provided to Oakland County if they are required, the owner and the Township**
- **The above referenced documents and agreements shall contain indemnification and hold harmless provisions from the owner and/or operator protecting the Township from any liability or costs associated with the system or Township intervention as a result of the owner's or contractor's failure to comply with agreements required as a condition of this approval. Owner and/or contractors shall also supply to the Township copies of certificates of insurance in place naming the Township, its officials and employees as additional named insureds with minimum limits as established by the Township. The agreements being prepared shall include penalties for non-compliance no less than those specified in the Oakland County Health Department Code and**

**installation and operation standards no less than those required by the Oakland County Health Department Code.**

- **All requirements and agreements for this system shall be documented and provided in a restriction document meeting the requirements of Oakland County Health Department and Springfield Township. Such documents shall be recorded in the Oakland County Register of Deeds. It is the intent that said restrictions shall run with the land and that they cannot be amended without Township approval. Further it is understood that the site plan for the AdvanTex system approved as a result of this motion shall be the plan presented to and reviewed by this Board with the latest issue date of March 6, 2017 which includes Orenco Systems Incorporated AX200RT Treatment System-UV with Gravity Discharge detail, project number AX20RT-UV Mode 3A, Title NDW-ATX-RT-STD-08 revision A-05 date 4/22/2013 with the understanding that any subsequent site plan changes intended to supersede said site plan shall not be effective until approved administratively by the Township. It is understood that the Township and Oakland County Health Department may work together on all enforcement issues such that either party may take the lead on enforcement actions when necessary.**
- **It is also understood that the Township attorney may, if necessary to meet the stated intent of this motion and protect the Township, modify or add to the specific points listed above.**
- **In addition, the owner/applicant shall place funds in escrow with the Township sufficient to cover the cost of the Township attorney's time for document preparation. Said escrow to be in the amount estimated by the attorney.**

**There were documents and descriptions regarding system operation and maintenance that were presented and provided at the January 17, 2017 meeting and the February 8, 2017 Special meeting regarding the septic system at the subject site and it is the intent that any materials submitted at those two meetings relative to the AdvanTex system are made a part of this meeting's record. Additional restrictions regarding discharge from water softener into the septic system shall be part of this approval. With the foregoing statements, stipulations and conditions, the request to place an AdvanTex septic system within 31 feet of the high-water mark of Big Lake, per the submitted site plan and previously submitted AdvanTex manuals and operational maintenance information, is approved.**

**Further, the Zoning Board of Appeals finds that the approved plans meet the conditions set forth in Section 40-63(d) of the Springfield Township Code of Ordinances including:**

- a. **Special conditions and circumstances exist which are peculiar to the land, structure, or building involved and which are not applicable to other lands, structures, or buildings in the same zoning district. The Zoning Board finds this to be true due to the size of the lot, distance between the high-water mark and the**

**existing structure is only 64 feet so to place a septic facility in the front yard is not possible due to placement of neighboring wells and to put a septic in the rear lot that would meet the current ordinance language would be impossible.**

**b. Literal interpretation of the provisions of this chapter would deprive the applicant of rights commonly enjoyed by other properties in the same zoning district under the terms of this chapter. It would deprive the applicant of having any type of facilities on the property that would be required to have this be a habitable home.**

**c. The special conditions and circumstances referenced in subsection (d)(1)a of this section do not result from the actions of the applicant. The Zoning Board has determined that they do not; they are relevant to the property and not the applicant who caused it.**

**d. The variance is the minimum variance that will make possible the reasonable use of the land, building, or structure. The applicant has gone to great lengths to try to create the minimum variance required and brought the system to a distance of 31 feet versus the 25 feet at prior submission.**

**e. The granting of the variance will be in harmony with the general purpose and intent of this chapter and master plan, and will not be injurious to the neighborhood, or otherwise detrimental to the public welfare. Zoning Board received information during this meeting relative to the effectiveness of this onsite treatment facility and finds that this provision is met.**

**Supported by Board member Fischbach. Vote yes: Baker, Fischbach, Vallad, Wendt, Whitley. Vote no: None. Absent: None. Motion approved.**

**DISCUSSION:**

Board member Whitley suggested that the Township Board and the Planning Commission review the zoning requirements of small lake lots which were created before they had a zoning ordinance. The small lake lots do not fit any of the zoning requirements in any of the zoning districts and it leaves owners of those properties having to approach the Zoning Board of Appeals to do anything with their property. There may be other solutions for example the study and creation of a zoning district that is specific to small lake lots that do not meet any of the current zoning districts relative to dimensions, coverage of accessory buildings and septic systems; the three topics that seem to be repetitive. They need to clarify to property owners what can be done without going to the Board of Appeals and make it more administratively efficient to get things done. The Zoning Board of Appeals should not be the regulatory agency for small properties. He suggested the study of and perhaps creation of a new zoning district that covers those properties in a better fashion than the current ordinance would be better for everyone involved.

Board members agreed.

Board member Vallad informed the Board that the Township Board approved the alternative Zoning Board of Appeals appointment of Matt Underwood who would fill in in case of absence of one of the regular Board members.

**ADJOURNMENT:**

**Board member Baker moved to adjourn the meeting at 8:29 pm. Supported by Board member Vallad. Vote yes: Baker, Fischbach, Vallad, Wendt, Whitley. Vote no: None. Absent: None. Motion approved.**

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Erin Mattice, Recording Secretary