

SPRINGFIELD TOWNSHIP
ZONING BOARD OF APPEALS
January 18, 2017

Call to Order: Chairperson Wendt called the January 18, 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
 Virginia Fischbach
 Denny Vallad
 Skip Wendt
 Bill Whitley

Absent:

AGENDA:

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

PUBLIC COMMENT: None

CONSENT: Minutes of the December 21, 2016 meeting

Board member Whitley moved to approve the minutes December 21, 2016 meeting as amended changing “affluent” to “effluent” on page 3. Supported by Board member Vallad. Vote yes: Baker, Fischbach, Vallad, Wendt, Whitley. Vote no: None. Absent: None. Motion approved.

OLD BUSINESS:

1. *(Tabled on November 16, 2016) Request from Marcia Lennox, 10910 Bigelow Road for a variance to create two parcels resulting in one with a nine hundred and twenty-eight (928) foot access strip rather than the maximum length of six hundred and sixty (660) feet required per Springfield Township Code of Ordinances, Chapter 40, Section 40-642.*

The property that is the subject of the request is located at 10910 Bigelow Road in Springfield Township and is zoned R-2 One Family Residential. P.I. #07-10-100-031.

Board members discussed an email that they received from Ms. Lennox asking the members to remove it from the agenda. Board members discussed how long this case had been extended.

Board member Whitley stated that there was a reason provided in November that seemed reasonable, this time there is no reason behind the request.

Board member Whitley moved to table Marcia Lennox, 10910 Bigelow for one month. If the applicant is not ready at the February 2017 meeting, the Board will dispose of the request with no action and the applicant would need to re-apply. If there is no business and no meeting in February, it can be moved to the next regularly scheduled meeting. Supported by Board member Baker. Vote yes: Baker, Fischbach, Vallad, Wendt, Whitley. Vote no: None. Absent: None. Motion approved.

2. *(Tabled on October 19, 2016) Request from Kelly Katnik, 6032 Long Point Drive, Davisburg 48350 to construct an accessory building resulting in the following variances:*

- a. *Distance from a septic system to the high water mark of Big Lake of twenty-five (25) feet rather than the one hundred (100) feet required per Springfield Township Code of Ordinances, Chapter 40, Section 40-639*
- b. *Side setback of four (4) feet rather than the fifteen (15) feet required per Springfield Township Code of Ordinances, Chapter 40, Section 40-572*
- c. *Front setback of six (6) feet rather than the fifty (50) feet required per Springfield Township Code of Ordinances, Chapter 40, Section 40-572*

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 and she introduced Mike Powell, Powell Engineering, as the Engineer for the property. She stated that at the meeting in October, her case was tabled so the Township could hire a consultant to review her case. This was done and she felt there was great information gained from that review.

Mike Powell provided a summary of the proposed new plan for the engineering septic system to be located at 6032 Long Point Drive. He stated that Oakland County has a few engineered systems that are approved. This is an existing home and the situation was not created by the property owner. The existing home sits in the middle of the property and wells line the road side of the property. The protection of the ground water wells is of utmost importance to the Oakland County Health Department and then the environmentally sensitive areas. There is no other spot on this site to put the septic other than what is being proposed. He continued with a summary of the proposed Advantex RT system which was put together after considering the review by Sean Nalepka of Boss Engineering which is the consultant that the Township hired. Mr. Powell provided a copy of the site plan for the Advantex RT septic system proposed. He stated that he brought the design criteria as well as the scientific testing data and a sample owner's manual. All of the criteria that Mr. Nalepka pointed out in his review have been met with the Advantex system except for one and he explained these criteria. The only deficiency is with removal of phosphorous. He added that phosphorous loading is provided by people fertilizing their yards as well. He stated that if the Board does not approve this system then the house will become inhabitable.

Chairperson Wendt asked Ms. Katnik when she bought the property did she ask or get anything that was pertinent to whether or not the property had the ability to contain a sewage treatment system on it.

Ms. Katnik responded that she received that information after she purchased the property from the Oakland County Water Resource Commission.

Chairperson Wendt asked if initially the owner did or did not verify that the property was capable of sustaining a sanitary system for a year round residence.

Ms. Katnik replied that none of this information was divulged to her when she purchased the home. It was identified after the fact.

Chairperson Wendt asked if the Advantex system will have any effluent that leaves the containment system.

Mr. Powell stated that there is not a septic system out there that magically makes water disappear. The water typically travels vertically through the soils and then out in all directions. All septic systems dispose of water and this system outlets the effluent into the ground.

Chairperson Wendt asked if any soil borings had been done near the initial containment system that would show what the original retention basis would be of the soil content.

Mr. Powell stated that they are called test pits and five test pits have been done on this site. He pointed out the information regarding the soils located on the plan. There were four test pits done on the lake side and one on the road side.

Chairperson Wendt asked if there is stipulation regarding soil content and the amount of solid and liquid that will pass through the material before it becomes free flowing.

Mr. Powell stated that once the water leaves the piping in the septic system, it is free flowing in a down direction.

Chairperson Wendt asked if there is a retardation rate based on the types of soils that the effluent has to go through.

Mr. Powell stated that the design of the absorption bed is fairly standard and he summarized the path of the water.

Chairperson Wendt asked if clay loam soils do not act as retardants to water flow.

Mr. Powell asked where Chairperson Wendt sees clay loam.

Chairperson Wendt stated that he is asking just from a question standpoint. Are there layers of soil that will slow down the water flow before it gets to a free flow position?

Mr. Powell stated that there are no soils that allow free flow of water flow. Sand is the most porous, then it goes to a loam which is a combination of sand, silt and clays and then there is clay, then there is marl. There are variations based on how much water you are trying to put through them.

Chairperson Wendt asked if he has a septic system that is 100 feet from the lake that is not free flow down, there are going to be ingredients in the soil that will retard the speed at which that water reaches free flow which will be the lake. He asked if that exists.

Mr. Powell replied that the soil itself retards the flow of water and treats the water as it flows. The longer it is in the soil, the better treated it is so ten feet of clay doesn't allow as much water through it as 100 feet of sand. He thinks the Chairperson is trying to ask if this proposed system offers as much protection to the lake as a normal septic system at 100 feet and he would answer yes.

Chairperson Wendt stated that he is saying that there are artificial barriers in this system that are the same as what would be experienced in the natural habitat in nature.

Mr. Powell replied that he would not classify it as a barrier. The system that is proposed has a circulating filter and cleans the water until it is environmentally the best that it can be done in today's technology.

Chairperson Wendt asked what is the hardship in having holding tanks that would need to be pumped out when it alarms.

Mr. Powell replied that this used to be done but is not allowed by either State or local code. This is not an option for Oakland County.

Board member Whitley commented that the first committee meeting was held to work on ordinance changes to include engineering septic systems regarding the current setback to a body of water. Sean Nalepka, Boss Engineering, was part of this committee and he is in attendance tonight. He stated that Mr. Nalepka also provided a review of a proposed Eljen system for this site which was the system proposed originally. He addressed several strengths and weaknesses of the Eljen system in relation to this site in his report. He asked if Mr. Nalepka had done similar review of this Advantex plan in reference to its use at 9032 Long Point Drive.

Mr. Nalepka answered that he did do a review of this proposed Advantex plan in reference to its use at 9032 Long Point Drive. He stated that he is very familiar with this system and has personal experience with approximately 500 of these systems. The review that he did for the Eljen system can be used to come to a solid scientific and engineering conclusion about this new proposed system. He stated that on page one of his report, he listed the five factors that a wastewater system is supposed to accomplish. He reviewed how the Advantex system would successfully accomplish four out of five factors listed in his review of 9032 Long Point Drive. He commented that the inclusion of the UV bulb is the only technology that is practical for removing viruses at a 99.9% removal rate. This is the same system used at Michigan Tech. This Advantex system is a miniature wastewater treatment plant that mimics what the larger waste water treatment plants do. The removal

of phosphorus is a function of soil type and the amount of aluminum, iron and calcium. At this particular site, there is not a predominance of any of those because it is predominately sand at this site which does not bind. There is nothing that can be done that would be associated with the system to remove phosphorous.

Board member Fischbach asked if distance could help with the removal of phosphorous.

Mr. Nalepka answered that it depends on soil. You must have a clay content because it contains iron which acts as the binding agent.

Board member Whitley commented that there is a finite life to it because there is a certain time when the iron becomes depleted.

Mr. Nalepka concurred.

Chairperson Wendt asked from a health standpoint, what is the biggest impact that phosphorous is going to have.

Mr. Nalepka stated that it is the health of the water quality. As far as a pathogenic or injurious to humans, there is no impact of phosphorous. Phosphorous is the predominant macronutrient for plant growth and is used in fertilizers for this reason.

Board member Whitley commented that there is nothing associated with this system that could remove phosphorous.

Mr. Nalepka concurred.

Board member Fischbach asked if the system was 100 feet away, there would be just as much phosphorous going in to the lake as 25 feet away.

Mr. Nalepka replied that it depends on the soil. All soils are going to have some amount of iron in them so if you are running the effluent through 100 feet instead of 25 feet even though it has a low absorption, there is a longer contact with those particles. The further you are away, it would be better, but it is impossible to quantify.

Chairperson Wendt stated there is an equal amount or more phosphorous placed in the soil through fertilizers than what you would normally see in a sanitary system.

Mr. Nalepka agreed. He stated that the removal of nitrogen would be accomplished with the Advantex system which is the fifth factor in his review. The Advantex system is more effective than the Eljen system for the removal of nitrogen.

Board member Whitley reiterated that the contribution of any system comes from the types of soils that are encountered at the local site, contributing up to 50% of the effectiveness.

Mr. Nalepka stated that this proposed system is different because it is a very small percentage of systems that use ultraviolet and this is reserved for extreme measures like

20 feet from the lake. This treatment system allows everything to be taken care of inside the treatment plant and they are using the soil as a place to disperse.

Board member Whitley asked about the control system with the Advantex system and the feedback system.

Mr. Powell replied that the County requires this system to be deed restricted. It makes the homeowner responsible to maintain the system. In the new OCHD sanitary code that was adopted on November 15, 2016, they also now require a licensed operator. The homeowner has to purchase an operator permit annually and this operator must write a report at least two times a year and send it in to Oakland County. This proposed unit requires a control system that measures the operation of the plant so that if it notices that it is backed up or there is extra loading on the pumps, an alarm goes off. It is an audible and visible alarm. The operator is called to come out and repair it. On some of the systems, it is an automatic call that is placed to the operator. It is repaired and a report is sent to the County.

Mr. Nalepka verified that this control panel does have remote telemetry and if there is some unbalance in the system, an automatic message is sent out via text message or email.

Chairperson Wendt asked if there is an alarm system that has a timetable associated with it and if that timetable is exceeded, could a gate come down and shut off any effluent from the system. He asked if there was a problem with this.

Mr. Powell replied that there is no problem with that unless you are on vacation and all of the water cuts off to your house.

Chairperson Wendt replied that he was just talking about shutting down the sewage leaving that facility.

Mr. Powell replied that you would not want to stop the effluent coming into and out of the treatment plant, you would want to turn off the water that supplies the house.

Board member Baker asked if the system that is proposed now is totally new, this is not an Eljen system or components.

Mr. Powell answered yes.

Board member Baker stated that in the construction notes on the plan, it still says Eljen system.

Mr. Powell apologized and stated that this would be corrected.

Mr. Powell stated that the owner is here to also answer questions on the dimensional variances as well.

Chairperson Wendt stated that the applicant has gone above and beyond to provide a reasonable resolution in this matter. For him, it is going to take more than this meeting in

order to resolve what needs to be put in language in order to help the applicant reach the point where she has a usable property.

Board member Vallad asked Mr. Powell if the Advantex system would need to go back to the County for presentation.

Mr. Powell replied yes. They already had an in-house meeting with the County so that they can understand the issues and the applicant understands that she will have to go through the appeal process again through Oakland County.

Board member Vallad asked if there was a change in the size of the field allowed with the Advantex system. The Eljen system allowed a reduction in the size of the field.

Mr. Powell stated that the County did not have the teeth in the previous code to make sure that homeowners maintain the mechanical systems. The Eljen did not have any mechanical systems so this was not needed but the Advantex system does. Now, it is required that an operator maintains the system. The code is so new that Mr. Powell has not had time to review it to see if they are allowing a blanket reduction in field size in all pre-treatment system. The County typically works with the applicant considering the land that they have.

Board member Vallad asked Mr. Nalepka if the Advantex system was the preferred system for this site.

Mr. Nalepka replied that the Advantex system is the Cadillac of all systems.

Board member Vallad asked Mr. Nalepka if he was designing a system for his own personal residential property, would this be the system that he would choose?

Mr. Nalepka replied that he does not want to get into personal opinions, he wants to deal with facts. This system would be an appropriate design for sites like this. He has proposed this system and had it accepted at other community appeal boards.

Board member Baker asked if the alarming system and its automatic phone call requires any intervention by the homeowner.

Mr. Powell replied no, the call is automatic and does not requires the homeowner to intervene.

Board member Whitley asked if Mr. Nalepka had ever recommended one of these systems at a 25-foot setback from a water body.

Mr. Nalepka replied that there is one being constructed this summer that he was involved with that is 30 feet on one side and 25 feet from the other.

Board member Whitley stated that they are in a hard spot regarding timing and education as it pertains to Zoning Board, Planning Commission and Township Board. He thinks that this constraint is not finished yet. There is a lot more knowledge that needs to be

shared before he is comfortable with a septic system 25 feet from a lake. Given the number of lake lots in the Township and the number of requests like this that the Zoning Board has had, before they take a step to go to 25 feet they need to be sure that this is the right thing to do because this can have impact 50 to 100 years from now. If they approve a system thinking that it should be approved and later find out that they made an error, there is no way to make up for that error because the system is there and impacting its surroundings.

Chairperson Wendt concurred. The establishment of the 100 feet was based on the knowledge that they had at that time and the technology has gone well beyond this.

Board member Whitley stated that they have only had one committee meeting on this subject and to take action on this request is preempting the process and preempting the value of that process. He doesn't believe that they have been presented with the data that says that this is an ok thing to do.

Board member Fischbach commented that the statement was made that this system is as good at 25 feet as a standard system would be at 100 feet. She asked Mr. Nalepka if he agrees with that statement and is it true because the effluent coming out of the tanks is so clean.

Mr. Nalepka responded that he would agree with that statement because this system is releasing water with a little salinity to it.

Supervisor Walls stated that there have been references to the system and when it is operating properly. If the Board of Appeals is going to grant a variance, he would request that they include in that motion some type of language and mechanisms for reporting to the Township so that the Township has some ability to step in if there is a failure. The Township has this in current community septic systems in the Township and a sewage treatment plant under the jurisdiction of the State of Michigan. The Township needs to have some level of assurance that they will be operated properly.

Board member Whitley replied that this is one of his concerns and another concern is the enforcement aspect of an improperly functioning system. If the Township does not have the power for enforcement, then they are leaving it to the County and he does not believe the County is acting at the level of their best interest.

Board member Whitley suggested that they study the language of the community systems so that the same type of language can be put into a motion were it to pass.

Chairperson Wendt agreed.

Board member Whitley stated that he would find it difficult to take action tonight and come up with appropriate enforcement action language to be included in the motion. He suggested that they table it so they can develop language around the enforcement aspect of a non-functioning system.

Board member Whitley moved to table the variance request for Kelly Katnik, 6032 Long Point Drive, Davisburg 48350 with the purpose of tabling at a minimum to develop language that will be included in a motion for approval irrespective if the Board approves or not around the enforcement aspect at a Township level of a non-functioning technical engineered sewage treatment plant.

Mr. Nalepka commented that the Board is looking at a minimum of three to five year process to revise the ordinance language.

Supervisor Walls replied that it might take longer than a month, but no longer.

Board member Whitley stated that they can find language that they are all comfortable with from an enforcement standpoint in less time. This language should be focused on the long term management of these types of systems. The long term development of the ordinance aspect will take much longer.

Board member Baker asked if there was additional information that the Board members need from the consultant.

Board member Whitley stated that he would want more information regarding what kinds of materials if not contaminants and how does this apply to this case.

Board member Baker stated that he wants to know given the soils at this location, what type of exposure and impact would this body of water expect to receive with a 100 foot conventional systems as compared to this Advantex system at 25 feet.

Mr. Nalepka replied that it would receive less. It is very site specific.

Board member Whitley replied that they would like the comparison of a 100-foot conventional system and this Advantex 25 foot systems quantified.

Board member Fischbach asked if Mr. Nalepka was able to give such a report.

Mr. Nalepka replied that he is not sure what they are asking for.

Chairperson Wendt stated that it is impossible to meet the Springfield Township ordinances based on the size of the lots around the lakes in the Township so they have to create a statute that covers these properties.

Board member Whitley replied that this is why they have to get it right.

Board member Baker stated that the Township has retained a consultant and he is of the opinion that they need to rely on the opinion of this consultant. They are not dealing with creating an ordinance, they are just dealing with this applicant's request.

Mr. Nalepka stated that this proposed system produces tertiary treated wastewater, it is no longer effluent.

Board member Whitley reminded the Board that they have a motion on the floor and they have made the additional request for an engineering request from the consultant comparing a conventional septic system at 100 feet to this Advantex system at 25 feet. The Board would like this comparison quantified and in writing so that they could compare it at the next meeting.

Mr. Nalepka replied that this is impossible for him to provide. He has no way to know all of the site specifications of this site. The system proposed is a highly controlled process that is going to give tertiary treated effluent. Water going through 100 feet of soil may give tertiary treated effluent, it may not. This system has gone through many years of testing and he personally has 21 years of experience with it.

Board members discussed the length of the time that would be needed to develop enforcement language, as stated in the motion. Board members decided on a month.

Mr. Powell stated that he feels that 30 days is adequate time to develop language.

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

NEW BUSINESS:

1. Request from Matt and Cathi Slate, 9650 Gibbs Road, Clarkston, 48348 to build an addition resulting in a front setback of fifty-four (54) feet rather than the seventy-five (75) feet required per Springfield Township Code of Ordinances, Chapter 40, Section 40-572

The property that is the subject of the request is located at 9650 Gibbs Road in Springfield Township and is zoned R1A One-family residential. P.I. #07-02-376-017.

Byron Feltner, Builder, introduced himself to the Board. He lives next door to the applicant and Cathi Slate is his daughter. He summarized the variance request. The reason they cannot go off the south side is because of the utility easement present there. The applicant purchased the home over a year ago and did not create any of the easement or utility issues. The addition off the front is to add a laundry room to the structure. The home already encroaches into the setback.

Board member Vallad asked if the laundry room has to be there or can it be on the north side.

Mr. Feltner described the home layout. There is no laundry room at this point in the home and it makes sense to have a mudroom at the entry to the home. Mr. Feltner approached the Board and described the proposed building plans for the home and addition. He described the proposed addition as a mudroom and a place that you could enter the home and take off coat and shoes as well as a laundry room.

Applicant confirmed the size of the home is between 1200 and 1300 square feet.

Board member Vallad asked if there was wooded property.

Mr. Feltner answered yes.

Board members discussed the tree line, location of the houses along this road and the history of the lots along this road.

Applicant confirmed the size of the lot at a little over 3 acres.

Board member Whitley moved that the request for an addition on the property located at 9650 Gibbs be approved given the interference of the utilities on the south side of the house and the interference of the septic system on the east side of the house. Supported by Board member Baker. Vote yes: Baker, Fischbach, Vallad, Wendt, Whitley. Vote no: None. Absent: None. Motion approved.

BOARD COMMENT:

Board members suggested that Supervisor Walls and the Township Attorney look at and propose language that would be enforceable and puts the Township in the best position. Supervisor Walls stated that the Board of Appeals will have to make any language a part of a motion as a condition of approval. Board members discussed the need for a Special Meeting since based on the Board members' vacation schedules, only three members will be at the regularly scheduled February meeting and they feel the need to have as many members there as possible. Board members discussed the possible dates for a Special Meeting to consider the variance request for 9032 Long Point Drive. Board members decided on the Special Meeting date of February 8, 2017 at 7:30 pm.

ADJOURNMENT:

Board member Whitley moved to adjourn the meeting at 9:38 pm. Supported by Board member Fischbach. Vote yes: Baker, Fischbach, Vallad, Wendt, Whitley. Vote no: None. Absent: None. Motion approved.

Erin Mattice, Recording Secretary