

TOWNSHIP OF LOWER MAKEFIELD  
ZONING HEARING BOARD  
MINUTES - NOVEMBER 30, 2021

A special meeting of the Zoning Hearing Board of the Township of Lower Makefield was held in the Municipal Building on November 30, 2021. Mr. Zamparelli called the meeting to order.

Those present:

Zoning Hearing Board: Anthony Zamparelli, Chair  
Pamela VanBlunk, Vice Chair  
Matthew Connors, Secretary  
James Dougherty, Member  
Peter Solor, Member

Others: James Majewski, Director Planning & Zoning  
Barbara Kirk, Township Solicitor  
Adam Flager, Zoning Hearing Board Solicitor  
Frederic K. Weiss, Supervisor Liaison

APPEAL #21-1906 – GABRIEL DECK & ALEXANDRA CALUKOVIC-DECK  
Tax Parcels #20-039-004-001 and #20-039-004-002  
Intersection of Woodland Drive and West School Lane, Yardley, PA 19067  
(Continued from 9/29/21)

Mr. Edward Murphy, attorney for the Applicant, was present with Mr. Justin Geonnotti, engineer. Mr. John Fenningham, attorney for the MacDonalds, was present with Mr. Victor Fiorvanti, engineer.

Mr. Zamparelli stated they will allow Mr. Edward Boock to complete his Public Comment this evening which he had started at the previous meeting. Mr. Boock was reminded that he was still under Oath.

Mr. Boock stated at the end of the last meeting, he had provided a recap of all of the requested Variances and how they had changed from the initial request to the second request. He stated his environmental concerns include flooding and damage to the creek and trees adding that a huge tree fell on this property the night after the last meeting because of the hurricane. He stated he is also concerned about sediment in Silver Lake and chemicals that could work their way into the community's water system. He stated if the homeowners have a dog, the dog waste could get into the waterway since they would be building

right next to the stream. Mr. Boock stated he is also concerned because two Witnesses Testified - one of whom stated that where they are projecting to build is in the flood zone, and the other one stated that they are not. Mr. Boock stated his experience with the waterways is that they move; and just because they are not in the flood zone now, they could be in the future. Mr. Boock stated it was stated at the last meeting that everyone makes mistakes, but they have given themselves no margin for error since they are building right up off of the flood boundary line.

Mr. Boock showed photographs of the area, and he noted the area where they want to build the driveway. He noted the location of the inlets. He stated when they build the driveway, the existing landscaping will be taken out; and currently those plants are absorbing water, and will be replaced with a driveway. He stated they are asking for a Variance to have a narrower flag pole and flag lot, and the water will have to go somewhere. He stated he believes that part of the request for the narrower width is so that they are not dumping water off of the driveway into the neighbor's property. Mr. Boock stated he would like to know where the water will go from the big, long driveway.

Mr. Boock showed a photograph of the back of the property. He stated there is a drainage pipe underneath where they want to put the driveway. Mr. Boock showed where the drainage pipe comes out and the existing erosion. He noted a tree that is already eroded, and is getting ready to fall which he feels is a "hazard tree;" and he feels that the current or future owners need to do something about that tree before it falls and injures someone or blocks the creek causing flood damage to surrounding properties.

Mr. Boock showed a photograph of the wildlife in the area where the house is proposed to be built. He noted there is a gentle slope from the existing house down to the creek, and any water that falls will make its way to the creek. He showed a photograph of where the current owners of the lot have mowed the lawn down to the creek, and the erosion can be seen. He stated all of the soil ends up on the bottom of Silver Lake which will eventually have to be dredged out. He noted the other side which is naturalized. He added that the creek is in such bad shape that even where it is naturalized, there is erosion although on that side it does happen at a slower pace as opposed to the other side of the creek where they have the grass going down to the creek.

Mr. Boock stated removing the large trees will contribute negatively toward climate change. He showed calculations of how much water mature trees absorb; and if those trees are removed, that water will be going into the creek. He stated any additional water added to the creek will create more damage to the properties downstream. He showed information from the EPA about the importance of trees which the Applicants are proposing to eliminate.

Mr. Boock showed information he was provided by the Township with regard to the Applicant's water mitigation calculations. He stated the Applicant's engineer has indicated that it is just under 200% of what is required. He added that the rain garden is 128% of this calculation, and there are also trees and a rain barrel. Mr. Boock stated their mitigation is for the average storm – not a huge storm. He stated if the rain garden of 1,000 square feet were to be taken out, they are 233 cubic feet below where they need to be. He stated the whole proposal depends on the rain garden working properly. He stated about 25% of their mitigation plan was from trees.

There was an attempt made to show a video but was unsuccessful.

Mr. Boock stated the property is a deeply-shaded area with wet soil and a significant number of deer so the percentage of having a tree live there is slim. He stated four of the surrounding properties are against this project; and if this project goes through, they will be watching the trees planted to make sure that they live. He stated the property "will be under a microscope."

Mr. Boock stated at the March 16, 2021 meeting, an individual came in requesting a Variance to install a pool, and part of their plan was trees; however, that Applicant was advised, "trees do not count for this Board, and you have to dig a pit." Mr. Boock asked why trees would count for this Applicant when it did not count for the Applicants in March. He stated he feels the trees should not count in the calculations for this Applicant so that it is fair.

Mr. Boock stated at the last meeting he had asked about gutters and the roof design. He showed the Plan noting the downspouts that are feeding the rain garden. He stated he feels it is odd that two of the downspouts are in the middle of walls which he has rarely seen in the Township. He noted the rain garden on the Plan, the slope of the property, and the proposed location of a rain gutter. He stated the water will be going into the raingarden which he does not believe is in their calculations. He stated if water is at the top of the hill, it will go downstream.

Mr. Boock stated he also did research on raingardens which are 4" to 8" deep; however, the Applicants' rain gardens are proposed to be 12" deep. He stated the reason raingardens are 4" to 8" deep is because there is an open area in a yard, and 4" to 8" is a normal step so it is a safety issue. He stated stepping down 12" is not normal, and it is a tripping hazard especially if it is filled with water. Mr. Boock stated there is a slight slope up and to get the water to move in a certain direction, the pipe underneath has to go down; and he noted a graphic that shows this. He stated he researched how deep that has to be put, most of them were 12" to 14" because in the winter time you do not want it to freeze; and you want it low enough so that the water does not freeze in the pipe. He stated there will be a 12" deep raingarden slightly uphill from the home, and they are running a pipe going down. He stated he is not sure whether the pipe opening will be at the level of the rain garden. He stated he feels the Applicants need to explain this so that we will know that their system will work.

Mr. Boock showed a slide entitled "Calculations for a 1,000' Rain Garden;" but when he calculated the size of the rain garden on the Applicant's Plan, it was 684.3 square feet which is about 30% smaller than what they are claiming for in their Mitigation Plan. Mr. Boock asked if they are going to make the rain garden bigger, or are they going to take that extra 300' out of their mitigation levels.

Mr. Boock stated if there is not a plan for leaves, they are going to fail. He showed a picture of three homes with three gutter options including his own home. He stated he has the larger gutters specifically for the leaves. He stated another property has no rain gutters and his other neighbor has gutter guards; however, all three properties fail for certain reasons. He stated water goes wherever it wants at the home that has no rain gutters. He stated at his home can be clogged by leaves, twigs, or sticks if he does not clean them out, and the water goes over top. He stated at the home with the gutter guards, if it is a very powerful, windy storm, the water runs over the gutter guards. He stated he feels the Applicants should be able to account for what is going to happen.

Mr. Boock stated when they add all of this impervious surface, the water will go down the hill much further and much faster, and create much more damage if they put this house on the wetlands buffer area.

Mr. Boock stated one of their Variance requests was to have a narrower flag pole lot, but he has not seen where they will be shifting that water to. He stated if they push it into the inlets he noted earlier, it will inject all of the new impervious

surface directly into the creek. He stated it could also go onto the adjoining property owners' properties which he showed on the Plan. He stated he believes that their plan is to drain the rain garden into one of the inlets; and once the rain garden fills up, it will inject all of that water from the new impervious surface directly into the creek. He stated they have indicated previously that they "will be doing the community a favor and putting less water in;" but no one who lives on the creek believes that.

Mr. Boock showed what he believes is the flood hazard line on the Applicant's Plan that the Applicant came up with. He also showed where the flood hazard line was located according to the other expert. He stated he does not feel the Applicants are giving themselves any margin of error. He stated if they are not 100% accurate, they will be building on the floodplain which is a problem. He noted on the Plan three points where it is very close to the flood hazard line.

Mr. Boock showed a slide entitled "Adjusted Water Mitigation Calculations" which he prepared which indicated that they do not "hit the minimum for a normal storm before there is a problem."

Mr. Boock stated it appears that the rain garden has a pipe that comes up to collect the water when it fills out, and the pipe then takes it to the inlet to dump it directly into the creek. He asked what will happen when the leaves and sticks clog that up. He stated there are a number of issues that the existing homeowners deal with on a regular basis.

Mr. Boock stated he is also concerned about the water quality since animal waste collected on the roof of the new home will be guided directly into the rain garden; and once it reaches the maximum, all of that dirty water will be lifted up, go down the pipe, and get injected right into the creek with no filtration.

Mr. Boock stated Lower Makefield has a deer over-population problem, and they are displacing the deer with this project. Mr. Boock showed a picture of an Eastern box turtle, which is an endangered species taken June 1, 2012 on the Lot that they want to develop. He discussed the symbiotic relationship between animals and plants.

Mr. Boock stated he believes his property value will be diminished if a house is constructed as proposed, and he believes that it also true for other neighbors. He stated he moved into his property for the back yard specifically, and he knew

what the Zoning Codes were around the property; and it was his expectation that the Township would enforce their environmental Codes, and that is being debated right now. He showed a picture of the back yard of his home and location where the Applicant wants to build the house. He noted the number of trees that came down during the hurricane. He stated this proposal is going to impact his quality of life. He stated a house should not be built on a wetlands buffer area. Mr. Boock stated no one from the community has spoken in favor of this proposal. He stated every surrounding property except one has been made a Party to the Appeal, and they intend to fight this “until their last option is exhausted.” Mr. Boock stated if it is built, “they will be on them and making sure that any Agreement they have made or executed is done in its entirety; and if they want to live like that, that is fine.” Mr. Boock stated if we care anything about the environment, this project should not be approved.

Mr. Murphy stated there had been an extended discussion elicited by Mr. Fenningham about various Notes on the Plan that Mr. Geonnotti had prepared as part of the Application. Mr. Murphy noted one was Note #32 on Exhibit A-4 which was the Zoning Plan and also on the Survey Plan where Mr. Fenningham had indicated that the Notes indicated that no field surveying has been performed; but rather the Plans were based on graphic plotting. Mr. Fiorvanti stated the Notes inferred that the location of the FEMA Flood Plain was done by graphic plotting, and then Testimony he had reviewed indicated that it was a field run topography, but the Plan did infer that it was not tied to the FEMA flood map. Mr. Murphy stated Mr. Fiorvanti made multiple references to the fact that based on what he read of the Notes that he did not believe that a field survey had been performed, and as a result of that there were no tie-ins to FEMA benchmarks, etc.; and Mr. Fiorvanti agreed that was the Notes appeared to him to say. Mr. Murphy stated there are multiple references in the Notes of Testimony, around page 24, that based on that even though there was FEMA benchmark information available, the lack of anything other than graphic plotting prohibited anyone tying those FEMA benchmarks to the Plan. Mr. Fiorvanti stated when he read the Notes, that was the type of Note that one would typically put on a Plan if they did not tie into FEMA’s benchmark.

Mr. Murphy asked Mr. Fiorvanti’s Testimony tonight, multiple months later, that the Applicant did not do a field survey. Mr. Fiorvanti stated he saw in the Testimony that they did do a field survey, and he believes the topography is real, and he actually used it in his analysis; however, he cannot tell whether they tied it into a FEMA benchmark. Mr. Fiorvanti stated when he got the results of his survey, it came in about 2/10<sup>th</sup>s lower which made him think that

perhaps they did tie in although it does not say that they tied in; and he feels it is too important to leave something like that undocumented, and that is why he went and checked the datum himself.

Mr. Murphy noted Exhibit A-4, the Zoning Plan which was shown. Mr. Murphy stated they have taken Exhibit A-4 and highlighted the General Notes that were on the Plan. Note #1 was shown which states: “The Plan has been prepared based on the references including an actual survey done by Fortified Services, LLC.” Mr. Fiorvanti agreed that it says that the survey was prepared by Fortified Services, and he did think that was a field-run survey as it was in Mr. Gionnotti’s Testimony; however, it does not say anything about FEMA.

Mr. Murphy noted the next Note on Exhibit A-4, which is also the second sheet of Exhibit A-4, and that Note has been highlighted, and it was on the Plan from the very beginning; and it talks specifically about the fact that there was a field survey done and that the FEMA Floodway and Flood Plan Zone lines as depicted where aligned accurately with the topographic survey that was done.

Mr. Fenningham asked if these Notes also refer to Exhibit A-7 which is the one with the corner legend about graphic plotting. Mr. Murphy agreed that is on the next one; however, the two he has referenced are Notes on Exhibit A-4.

Mr. Fenningham stated he is clarifying that these references to a Survey are to Exhibit A-7; and Mr. Murphy agreed that they will show that.

Mr. Fiorvanti stated Note #4 does not state that it is tied into the NAVD 88 although it does say that they align accurately with the FEMA base flood elevation, although it does not say that it was tied in so it still could be an overlay.

Mr. Murphy noted Page 2 of Exhibit A-4, Note #3 states: “The topographic information and existing conditions depicted on the Plans were surveyed on January 25, 2021 by Fortified Services, LLC.; and Mr. Fiorvanti agreed. Mr. Murphy stated in two references on Exhibit A-4 there is a specific reference to the fact that the property was in fact surveyed, and Mr. Fiorvanti agreed.

Exhibit A-7 was shown. Mr. Murphy stated this is the Survey Note, and they have highlighted Note 1, 5, and 7. Mr. Fiorvanti stated he feels that there is a contradiction. He read Note 5 which he feels is good, but there seems to be a conflict with the flood notes in the bottom left which state: “by graphic plotting only.” Mr. Murphy asked Mr. Fiorvanti if he would acknowledge based on the

Survey Note that was highlighted that there was an actual field survey done of the property, that GPS was used, and that the survey was in fact tied to FEMA benchmarks. Mr. Fiorvanti stated he would still be confused because it seems to conflict with the other Notes that say it was by graphic plotting only, and the problem is that he is not sure whether it was or was not. He stated he does see the Note about NAVD 88, but in other places he sees that no field survey work was done to establish the floodplain.

Mr. Murphy stated Mr. Fiorvanti is Testifying today that no field survey work was done; however, Mr. Fiorvanti stated he believes that the field topography was run in the field. He stated when he was first reviewing the Exhibits, he could not tell if it was tied into NAVD 88/the FEMA benchmark or not.

Mr. Murphy stated Mr. Fiorvanti does not accept as accurate the Survey Note that was just shared. Mr. Fenningham stated Mr. Fiorvanti has indicated that the Notes are conflicting on the surface; and he has indicated that in his opinion, it does not confirm that the field survey work tied into the FEMA benchmark when it says that “this was only graphic plotting.”

Mr. Zamparelli stated there does seem to be a conflict in that one Note at the bottom. Mr. Zamparelli stated that could be boilerplate language, and sometimes these are not taken out; however, there is the larger Note that does seem to indicate that it was done.

Mr. Fenningham noted Exhibit A-4, Note 32 states: “No field survey work was done.” Mr. Murphy stated they agree. He asked Mr. Fiorvanti if he was present during Mr. Geonnotti’s Direct Testimony and Cross-Examination by Mr. Fenningham or did he read the transcript of that Testimony. Mr. Fiorvanti stated he believes he reviewed it. He added the first thing he saw was conflicting information as to whether or not it was tied in, and he recalls Mr. Geonnotti stating that it was field run. Mr. Murphy asked Mr. Fiorvanti if he recalls Mr. Geonnotti saying that Note 32 and the other Note that was highlighted by Mr. Fiorvanti in his Testimony were in fact boilerplate Notes that should have been removed from the Plan before it was submitted, and Mr. Fiorvanti stated he does recall that. Mr. Murphy asked Mr. Fiorvanti, assuming he agrees, as Mr. Geonnotti does, that it was a mistake to add those several Notes would he agree that if those Notes did not exist that the more current specific Survey Note and the other Notes that were highlighted tonight would be those that would be relief upon.



Mr. Fenningham Objected to this compound question, and he is not sure that the answer would be yes or no. Mr. Fiorvanti was asked to answer the question, and he stated that in this situation with the floodplain being so close to the house and being such a critical issue, that kind of oversight on the Notes would lead him to have doubts, and that is why they ended up calling for their own independent surveyors to come out and check it.

Mr. Murphy stated Mr. Fiorvanti indicated in Direct Testimony that he had his own field survey done; and Mr. Fiorvanti stated actually he was not able to get his crew there in time, so he hired Cavanaugh Surveying from Doylestown to come out and check the elevations. Mr. Murphy asked if that survey crew went onto the subject property; and Mr. Fiorvanti stated they did not, and they stayed in the street. He added that the elevations that they procured are shown on their Exhibit. He stated they compared the top of grade elevation, manhole elevations, and the intersection which are hard elevations which can easily be compared.

Mr. Murphy asked if the opportunity to rely upon GPS in performing a survey would provide a higher degree of accuracy, and Mr. Fiorvanti stated that is his understanding. Mr. Murphy stated Mr. Geonnotti has Testified, and the Plans indicate, that his field survey actually on the property itself was done with GPS, and Mr. Fiorvanti agreed. Mr. Murphy asked Mr. Fiorvanti if his survey was done with GPS, and Mr. Fiorvanti stated it was. Mr. Murphy stated Mr. Fiorvanti's Testimony suggests that they could not get GPS equipment to do it; however, Mr. Fiorvanti stated they used GPS on the inlets and manholes out at the intersection of Woodland Drive which are shown on the Applicant's Plan of Survey so that they could compare. Mr. Fiorvanti stated he told them what datum he wanted the elevations on, but they had no Plans; and they got the same elevations that are shown on the Applicant's Plans for the same inlets and overall they are about 2/10ths lower.

Mr. Murphy stated Mr. Fiorvanti's Testimony in August (page 12) was: "In this situation we are tying into a FEMA benchmark and we actually had to hire an outside firm. We could not get the GPS equipment fast enough so I was assisted by a field survey crew." Mr. Fiorvanti stated that firm had its own GPS equipment and brought it with them. He stated when his firm does the GPS survey's they rent the equipment; however, he was not able to get it fast enough so that is why he hired them to come out immediately because the Hearing was coming up quickly. He stated they shot elevations that he could easily compare to the elevations on the Plan. He noted that at that time he

was not sure whether they had tied in, and being 2' from the floodplain makes a big difference so that is why they checked it; and they came in at about 2/10ths lower.

Mr. Murphy asked if, at the time, Mr. Fiorvanti was challenging and still challenging tonight the fact that if there was no field survey done, there was no way to tie into the FEMA benchmark. Mr. Fiorvanti stated his concern was that if the survey was not tied into a FEMA benchmark, all the comparisons would be very approximate and could not be relied on. Mr. Murphy asked Mr. Fiorvanti if he is saying that he does not believe that the Applicant's Plan of Survey was tied into a FEMA benchmark, and Mr. Fiorvanti stated now he believes that they did get an elevation from NAVD 88 from GPS. He added that he also did that, and they are about 2/10ths lower. He stated his point is that the site is so flat and so close, and the proposal is aggressive being 2' from the floodplain. Mr. Fiorvanti stated if they were to use his elevations, it was lower by 2/10ths where the floodplain moved. He stated if there is a 1.5% slope next to the stream, for every tenth you move over 7' so if they are 2/10ths different, that is 12' to 14' over where the floodplain will be. He stated it is different if there is a steep site, and you are 2' from the floodplain, but you are 30' above it; however, if you are an inch above it, and you are 2' away, and their elevations are 2/10ths lower, then the floodplain moved over 14', and it is in the middle of the garage. Mr. Fiorvanti stated this is a flat site and very sensitive to elevation. He stated if there is a 1% slope on a property next to a floodplain, and the water gets 1' higher, it goes 100' over. He stated he feels the 2' is a concern.

Mr. Murphy asked Mr. Fiorvanti is Testifying that his survey, which no one has seen, is more accurate than the survey undertaken by the Applicant recognizing that his survey was done on the property itself, and Mr. Fiorvanti's was not, that the Applicant's survey was done with GPS, and Mr. Fiorvanti's may or may not have been since they have not seen it, and the Applicant's was tied into FEMA benchmarks, and they do not know if Mr. Fiorvanti's were or were not since they have not seen it. Mr. Murphy asked Mr. Fiorvanti if he is challenging the accuracy of the Applicant's survey. Mr. Murphy was asked to re-state his question.

Mr. Murphy asked Mr. Fiorvanti believes that his survey, which they have not seen, is more accurate than the survey that was submitted by the Applicant based on the facts that he previously reviewed and Mr. Fiorvanti concurred. Mr. Fiorvanti stated he believes that his survey is as accurate as it was done with GPS by a professional surveying firm in Doylestown, adding that they did

come up with a slightly different result. Mr. Fiorvanti stated the result being as close as it is confirms that even though the Notes say different things, they probably did tie in with a GPS as did the firm he hired. He added that they did not produce a separate document, and they took five or six elevations as shown on the Exhibit, and you can see the same elevations that they produced on the same inlets that are on the Applicant's survey, and it can be seen that they are all lower. Mr. Fiorvanti stated it may be typical that the elevation accuracy of the GPS instruments are plus or minus a tenth or so, and that would show that with a flat site, the floodplain would move over; so proposing a dwelling 2' from the floodplain is a risk. He stated he wanted to confirm that they were at the same benchmark, which he feels they are, and his elevations are lower and the floodplain is 12' to 14' higher because of that; and this is what he was trying to illustrate.

Mr. Murphy stated Mr. Fiorvanti has acknowledged that the survey crew was not on the site, and he asked Mr. Fiorvanti how he would identify, with as much as accuracy as the Applicant's survey did, actual elevations of individual contours on the property. Mr. Fiorvanti stated he used the GPS to tie-in the FEMA datum, and it was about 2/10ths lower than the Applicant's. He stated he used the topographic survey that was produced by the Applicants, and all he did was show what a 2/10ths difference would do. He stated his Exhibit 1 or 2 which he had produced was showing where 88.2 would land between the two contours, and he had used the Applicant's contours and field-run topography which he accepted as accurate. He stated he was showing, reading the contours, where the water line would go and where he believes the flood plain would be.

Mr. Connors stated Mr. Fiorvanti is stating that he was using the Applicant's contours with an adjustment of 2/10ths based upon what his survey was, and Mr. Fiorvanti agreed. Mr. Fiorvanti stated he showed it with and without the 2/10ths, and he still believes that it is in the floodplain. Mr. Connors asked if his crew was under the jurisdiction of a PLS, and Mr. Fiorvanti agreed. Mr. Fiorvanti stated he personally met them out on the site and showed them what he wanted. He stated he has the invoice from the professional surveyors – Cavanaugh in Doylestown, PA. Mr. Connors asked Mr. Fiorvanti if he is submitting a sealed drawing that states that information; but Mr. Fiorvanti stated there was no drawing produced, and it was just elevations that he used on his Exhibit. Mr. Connors asked if Mr. Fiorvanti is going to put his seal on the numbers he is discussing; and Mr. Fiorvanti stated while he can they are a "sealed firm and they have a PLS guiding the firm." He added that all they do is survey work, and they are very good at with multiple crews.

He stated they own all of the GPS equipment, and he knew that he could get them there quickly. Mr. Connors asked why Mr. Fiorvanti would not put his seal on it, and Mr. Fiorvanti stated he would do that.

Mr. Connors asked Mr. Geonnotti what is the point density on the survey that they did in the field. Mr. Geonnotti stated he does not have that information with him; however, he could get that from the surveyor of record and provide it.

Mr. Murphy stated Mr. Fiorvanti testified that he felt that some portion of the house would be in the floodplain; and as a result of that, he believes that the improvements, including the house, would alter stream flows, increase peak rates, re-direct flows, and impact downstream properties. Mr. Fiorvanti agreed. Mr. Murphy asked Mr. Fiorvanti if he would still have that same opinion if the house were not located in the floodplain as the Applicant's survey indicates. Mr. Fiorvanti stated if the house was not located in the floodplain, it would not alter the 100-year flow; however, he believes that it is in the floodplain. Mr. Murphy stated assuming that the Applicant's information is accurate and no portion of the house is in the floodplain, the adverse consequences that he noted would not exist.

Mr. Fiorvanti stated if the dwelling is not located in the flow of the water, it will not re-direct the water; however, he still believes that the stormwater improvements proposed will cause an increase in peak flows. He stated if the stormwater system was designed for the exemption, that typically is granted when a site has less than 5,000 square feet of impervious surface and would be for a small project with small impact, no flooding areas, and not adjacent to a stream. He stated he believes that in this case, the driveways and the impervious surfaces are going to go right into the stream; and there is no peak rate mitigation. He stated therefore, he still feels that there is going to be an impact although it would not be directing the flow if it was not in the floodplain; however, he does believe that it is in the floodplain, and he does not feel they can model the floodplain to be 2' or 1' from a house and be assured that they have been that accurate.

Mr. Fenningham stated Mr. Murphy had stated repeatedly that Mr. Fiorvanti's survey crew was not on the site, and he asked Mr. Fiorvanti to clarify where the survey crew was. Mr. Fiorvanti stated they were at the intersection of Woodland Drive and West School Lane. Mr. Fenningham asked Mr. Fiorvanti if it is his expert opinion that the survey results are true and accurate even though they did not go onto the flag lot, and Mr. Fiorvanti stated he believes that they are.

Mr. Fenningham stated Note 4 on Exhibit A-4, which was the Zoning Plan presented by the Applicant, has the words: "Aligned accurately." He asked if those words "implicate field work or graphic plotting." Mr. Fiorvanti stated they implicate graphic plotting and seem to align with the other Note that they found that seemed to indicate that the floodplain was approximate. He stated as discussed previously that could be boilerplate notes or the tying in with GPS could be a boilerplate note. He stated since he did not know, and given that in this situation it is so critical, he had to check it himself.

Mr. Fenningham stated they are prepared to supplement their presentation with Mr. Fiorvanti's seal on the Exhibits verifying his acceptance of the survey results.

Mr. Fenningham asked Mr. Fiorvanti if he incorporated the survey results into his Exhibit VF-2, referred to as Revised Floodplain Line, dated August 17 and Exhibit VF-3, showing the points to the right. Mr. Fiorvanti noted VF-3 where their elevations are in blue and it can be seen that they are adjacent to the elevations that were submitted by the Applicant. He stated this is at the intersection of Woodland Drive and West School Lane. He stated whenever you are comparing elevations from a datum or benchmark, you need fixed surfaces that will not move, typically manhole rims, inlets, grates, bridge wall abutments, etc. He stated they were able to compare their elevations to the known elevations on the Applicant's Exhibits, which is all he really needed to do.

Mr. Fenningham stated these Exhibits were admitted into the Record on August 17.

Exhibit VF-3 was shown, and Mr. Fiorvanti showed the intersection, adding the elevations are shown that were picked up from the GPS survey; and they compared them to the elevations that the Applicant had, and that is where the 2/10ths difference came in. He showed Exhibit VF-2. He showed elevation 88.1 from the cross-section. He noted a flood hazard area which was plotted as being level. He stated they know from the first Exhibit that there is a slope to it, and he feels there was mention of 88.2 and it is 2' from the house. He stated looking at the difference between 88 and 89, where the contours are close it is a steeper slope and 1/10<sup>th</sup> does not matter as much; however, where there is a 1 ½% grade, it is even between the two contours, and each one is about 6' to 7'. He showed 88.2 using the Applicant's data, which would be where the house is proposed. He showed where 88.3 would put it. He stated if he were to lower it by 2/10ths because his was 2/10ths

lower, it would be in the middle of the house, and he showed that location on the Exhibit. He stated if he just used the Applicant's field-run topography, it would still be in the proposed house.

Mr. Fenningham stated the 88 elevation is depicted in a light hash line, and Mr. Fiorvanti showed that location on the Exhibit. Mr. Fenningham stated he asked Mr. Fiorvanti to prepare a more graphic depiction of the various elevation lines, and Mr. Fiorvanti stated he just completed it and provided it tonight. Mr. Fiorvanti showed Exhibit VF-5 and it adds some additional information to the other Exhibit where they had just showed the water surface elevations. He stated on Exhibit VF-5 there are a set of red lines, and those were based on the 2/10ths lower elevation, and the blue lines are the Applicant's topographic lines from their survey. Mr. Fiorvanti stated the dashed line is the 88 contour from the Applicant, and the 89 contour from the Applicant is the other purple dashed line. He showed how the tenths go between them. Mr. Fiorvanti stated if his elevation is correct, and it is 2/10ths lower, the entire surface moves up a little; and they can see the same exact pattern shifted about 12' to 14' uphill. He stated the water surface elevation can be seen through the house. He stated using the Applicant's data and plotting it using their contours, he still would be hitting the house. He stated on a flat surface 1' or 2' from the floodplain cannot be modeled that accurately. He stated it is possible that his 2/10s may actually be 2/10s lower, and he showed where that would be up even further. He stated it is very dangerous having a dwelling 1' from the floodplain unless you are 10' higher than it.

Ms. Kirk asked what VF-5 is titled; however, it did not have a title.

Mr. Fiorvanti was asked about the margin of error in surveying. Mr. Fiorvanti stated it depends on the type of survey and the type of instrument. He stated typically with a GPS receiver, it is a tenth or two. Mr. Fiorvanti stated they took two separate readings on the same exact grate, and they were about 2/10ths lower. He stated this is significant if you are proposing a dwelling 2' from a floodplain. Mr. Fiorvanti stated if his reading was one tenth lower, it would move it up another 7'. He stated if you a flat site, it is significant compared to being up on a cliff.

Mr. Fiorvanti stated with regard to trees, when trees are planted outside of the floodplain, it "helps in every way;" however, trees planted in the floodplain block the flow of the water. He stated they could block the stream and slow the water down, making it higher and to spread wider. He stated if a tree were to fall down, it could create the potential of dam. He stated he does not feel that type of stormwater management applies to a site that is in the floodplain.

Mr. Zamparelli stated Mr. Fiorvanti's concern is that they are so close, and Mr. Fenningham stated accepting the Applicant's data, they are close. Mr. Fiorvanti stated it would hit the house the way he interprets the blue line.

Mr. Connors asked Mr. Fiorvanti if he is a "CFM," and Mr. Fiorvanti stated he is. Mr. Connors asked Mr. Fiorvanti the difference between a floodplain and a flood way. Mr. Fiorvanti stated a floodway is when you encroach on both sides and the elevation goes up a foot. Mr. Connors asked the purpose of a floodplain versus a floodway, and Mr. Fiorvanti stated the floodplain and floodway provide Municipalities some kind of compromise where you can do some limited fill in the floodplain. Mr. Connors asked the purpose of the floodway in an actual flood, and Mr. Fiorvanti stated it keeps encroachment to the point where the elevations in the stream will not increase more than one foot. Mr. Connors stated that is "the transport and not where the flood waters are going and the floodplain is the storage." Mr. Fiorvanti stated the floodplain is where the stream would naturally flow to carry the 100-year storm. Mr. Connors stated it is more storage than flow. Mr. Fiorvanti stated it is more storage; but as you start to encroach upon it, the elevation rises, and you get to the point where you are a foot above, and that is the floodway line, and you "really need to have a good reason to encroach past that." He stated they try to keep encroachments in floodplains to a minimum but realize that you have to do it sometimes for bridges, sewer pump stations, and other projects. He noted on the Exhibit the line where the floodway is located, which is 1' higher.

Mr. Fiorvanti stated even if you are going to fill in the floodplain, the Ordinance has provisions which would require a study which could show that what is being proposed will not impact the surrounding property owners. He stated if that cannot be shown, the Applicant has to mitigate.

Mr. Fenningham stated Mr. Fiorvanti's line shown in red on the Exhibit would be lower which means that it would be further into the house location. Mr. Fiorvanti stated the red line shown on the Plan would be if they used his elevations which were 2/10ths lower. Mr. Fenningham stated that would mean that it would go to the right and higher on the house, and Mr. Fiorvanti agreed. Mr. Fiorvanti added that the water elevation is set; and if the ground gets lower, the water moves up higher.

Mr. Fenningham stated this Exhibit was also prepared to illustrate the location of elevation 88 which on the Applicant's Plan is a straight line across the parcel. Mr. Fenningham asked Mr. Fiorvanti if he agrees that is a proper depiction of a straight line elevation, and Mr. Fiorvanti stated he does not. Mr. Fiorvanti

stated it is not a straight line. He stated he does not know if it came up in Testimony, but the flood hazard on the Plan is labeled at a level elevation of 88; but as can be seen from the profile, it is water surface elevation, and it is not level, and the further upstream you go, the higher they are. Mr. Fiorvanti stated he believes one of the Exhibits had the geo-reference line on their Application was 88.1 and 40' over was the edge of the house which was 88.2 Mr. Fiorvanti stated he took their elevations and topography and plotted where 88.2 would be assuming a constant slope between the two contours, and that is where he got the first blue line.

Mr. Fenningham noted the yellow line which appears to be straight on the Exhibit; and Mr. Fiorvanti stated it is labeled "flood hazard," and that is the 88 contour. Mr. Fenningham asked if that is accurately depicted on the Applicant's Plan that shows it being off 1' or 2' from the house or does Mr. Fiorvanti feel that it is actually curving with the contour of the actual land topography. Mr. Fiorvanti stated it is depicted as flood hazard 88, but he does not feel it is a static 88, and it goes uphill. He noted the blue line which goes from 88.1, 88.2, and 88.3. He stated depicting the flood hazard at 88 all the way across the site is not correct, and it really rises up. He stated a "tenth is a big deal here."

Mr. Fenningham stated with regard to the graphic plotting issue, this depiction supports Mr. Fiorvanti's opinion that there was not a tie-in to the FEMA benchmark, and this tie-in is more accurate. Mr. Fiorvanti stated using the Applicant's topography, he believes what he is showing on the Exhibit is the accurate line for the flood elevation as shown on the FEMA profile. He added that is assuming that they are using the correct datum, and the fact that it was plotted horizontally at 88 is an error. He stated that is an issue if the house is right next to it. Mr. Fiorvanti stated using the Applicant's exact topography and elevations, he was still hitting the house. He stated he was reading 88.3; and when they did the field survey check, that pushed him another 12' to 14' up.

Mr. Fenningham stated in Mr. Fiorvanti's expert opinion, the line which is attempting to show that the BFE (base flood elevation) does not intersect with the house, is completely in error; and Mr. Fiorvanti stated he believes so. Mr. Fenningham asked Mr. Fiorvanti if it is his opinion that the depiction is result-oriented to have it outside of the proposed location of the house.

Mr. Fiorvanti stated it is shown to be exactly at the house where the flood hazard area which he does not feel is correct, and he did plot what he feels is the correct line.



Mr. Fenningham stated there were four videos shown on August 31 which had specific dates. He asked Mr. Fiorvanti if he was asked to gather rain data, and Mr. Fiorvanti stated he did do that. Mr. Fenningham stated the first video showed the storm event of August 14, 2018, and Mr. Fiorvanti stated the closest rain gauge he got to the property had 2.96" of water during that twenty-four hour period. Mr. Fenningham asked what that translates to, and Mr. Fiorvanti stated that would typically be a two-to-five year storm. He stated a two-year storm can vary from 2.3" to 3.2" so he feels that would be a two-year storm. Mr. Fenningham asked if that would be an average rainfall, and Mr. Fiorvanti agreed that would be once every two years.

Mr. Fenningham stated the next video was August 17, 2019, and he asked Mr. Fiorvanti if he secured reliable data in his opinion of the rainfall amount for that date. Mr. Fiorvanti stated the weather stations in the area had no records on that day so they must not have been operating.

Mr. Fenningham stated the third video was from August 4, 2020, and he asked Mr. Fiorvanti if he secured rain data for that date. Mr. Fiorvanti stated it was 2.96 which was exactly the same amount that he got two years earlier, and that would be about a two-year storm of approximately 3" of water. Mr. Fenningham stated what was depicted in the video shown to the Board was not a severe or hundred-year storm event, and Mr. Fiorvanti agreed that it was not.

Mr. Fenningham stated the fourth date was July 12, 2021, and he asked if Mr. Fiorvanti secured rain data for that date. Mr. Fiorvanti stated it was 2.2 which is a little bit less than a two-year storm. He added that none of the storms were hundred-year storms which would be three times that bad; and if it were a hundred-year storm, there would have been a lot more water than what the video showed.

Mr. Fenningham stated the survey crew was identified as Cavanaugh, and he asked Mr. Fiorvanti if his firm engaged Cavanaugh Surveying Services of Doylestown, Pennsylvania; and Mr. Fiorvanti agreed. Mr. Fenningham asked Mr. Fiorvanti if they were invoiced by Cavanaugh, and Mr. Fiorvanti agreed. Mr. Fenningham asked Mr. Fiorvanti if that invoice was paid, and Mr. Fiorvanti agreed. Mr. Fenningham showed a copy of the invoice, and asked if it was a true and accurate copy of the invoice; and Mr. Fiorvanti agreed. Mr. Fenningham offered the invoice as Exhibit VF-6.

Mr. Fenningham asked Mr. Fiorvanti if he could secure calibration confirmation from Cavanaugh Surveying with regard to their GPS equipment, and Mr. Fiorvanti stated he could. Mr. Fenningham stated they will submit that to the Board. Mr. Fenningham stated he believes that the Testimony was that it was done around August 10. Mr. Fiorvanti stated he can provide a Certification Letter of the results. Mr. Fiorvanti stated he did ask for that at Mr. Fenningham's request; and he was supposed to have it before tonight, but did not receive it.

Mr. Fenningham asked Mr. Fiorvanti if he has any concern with the base flood elevations or elevations that he has described in relation to the proposed location of the rain garden. Mr. Fiorvanti stated on Exhibit VF-3 he showed that in the event that he is correct with regard to where the floodplain line would be, what would happen during a one hundred-year storm. He stated the stormwater measures shown on the Plan are using the stormwater exemption for small projects; and in his opinion, none of that works when there is a stream "raging around the house." He added that for water quality, if it is a one-year storm, the rain garden will take some water, and it will work; but if it is a larger storm, it will not work, and he feels it will make things worse because it will be re-directing water and there will be a number of other impacts as well adding more water to the stream, increasing peak rates, and other things that it is not designed to do because it is being looked at as a small project.

Mr. Zamparelli stated Mr. Fiorvanti does not feel there should be an exemption, and Mr. Fiorvanti stated he does not feel there should be an exemption when they are so close to the stream. Mr. Fenningham stated it had been indicted by the Board that the Zoning Hearing Board does not make that determination, but Mr. Fiorvanti is presenting that in his expert opinion, that exemption should not be granted.

Mr. Fiorvanti showed Exhibit VF-4 which shows a distance from the site to the River of 6,964'. He stated there is an Ordinance Section under Resource Protection that reads as follows: "If any of the following site-specific criteria are applicable, the Township shall require an independent environmental assessment as set forth in the Chapter." Mr. Fiorvanti stated under 7 it states: "Wetlands abutting a water course terminating at the Delaware River less than 2 miles from the site;" and since this is at 6,900' from the River, he feels that requires an independent environment analysis for the wetland buffers and the other Variances that are being requested. Mr. Fenningham stated based on what

Mr. Fiorvanti has observed to be the presentation and Exhibits on behalf of the Applicant, that study has not been presented to the Board; and Mr. Fiorvanti stated he has not seen one.

Mr. Fenningham stated if there is further Cross-Examination, he may have a question of Mr. Fiorvanti; and if there are additional presentations by the Applicant at some point, he may want to re-call Mr. Fiorvanti. Mr. Zamparelli stated that would be acceptable.

Mr. Fenningham stated Mr. Murphy had completed his Cross-Examination of Scott MacDonald on August 31, and he believes Ms. Kirk did as well. Mr. Fenningham stated he was going to call Mr. MacDonald; however, due to employment-related reasons, Mr. MacDonald has not been accessible to Mr. Fenningham for the last three to four weeks. He has discussed this with Mr. Murphy and Mr. Flager and is requesting the right to reserve the possibility of re-calling Mr. MacDonald on re-direct, but he is not prepared to do that tonight. Mr. Fenningham stated it is his understanding that Mr. Murphy has no Objection to that. Mr. Zamparelli stated he also has no problem with that.

Mr. Murphy stated Mr. Geonnotti was present this evening and heard Mr. Fiorvanti's Testimony in Cross-Examination and re-Direct, and Mr. Geonnotti agreed. Mr. Murphy stated the property was field surveyed, and Mr. Geonnotti agreed. Mr. Murphy stated the property was surveyed utilizing GPS techniques, and Mr. Geonnotti agreed. Mr. Murphy stated the property was subsequently tied into FEMA benchmarks, and Mr. Geonnotti agreed.

Mr. Murphy stated that Mr. Geonnotti has acknowledged that several Notes that were highlighted early on were placed on the Plans A-4 and A-7 in error, and Mr. Geonnotti agreed.

Mr. Murphy asked Mr. Geonnotti to speak to Mr. Fiorvanti's Testimony this evening related to Exhibit VF-5 and certain assumptions that both he and the survey crew made as they relied on certain of Mr. Geonnotti's information to develop their own. Mr. Geonnotti stated the Applicant's survey is accurate to within 1", and that is standard survey practice, and is less than 1/10<sup>th</sup>. He stated .08 is the accuracy of surveys.

Mr. Geonnotti noted Exhibit VF-5, which he is seeing for the first time tonight. He stated Mr. Fiorvanti is supplementing an Exhibit which was previously submitted, so he feels comfortable making comment on VF-5. Mr. Geonnotti stated Mr. Fiorvanti did acknowledge that he field surveyed the perimeter of the property, and he never accessed the actual property itself.

Mr. Geonnotti stated with regard to the Testimony about checking into field shots of the applicant's survey, Mr. Fiorvanti had indicated that they were checked in by fixed objects such as inlets, manholes, and fixed objects on site. Mr. Fiorvanti stated there are several different areas on an inlet where you can shoot the inlet, and where you shoot the inlet and how plumb your rod is when you are shooting it can have an error within a tenth. Mr. Geonnotti stated there is a site benchmark out there, but he is not sure that Mr. Fiorvanti checked into the site benchmark. Mr. Geonnotti stated Mr. Fiorvanti stated that all of them were 2/10ths lower. He added that there are many different areas where you can shoot an inlet although it is supposed to be center back, but he does not know where they were shot because a signed, sealed survey was not presented by Mr. Fiorvanti where they could compare the shots and where they were taken.

Mr. Geonnotti stated Mr. Fiorvanti stated that they did not access the property and was just using the Applicant's field data. Mr. Geonnotti stated Mr. Fiorvanti was assuming that there was a constant slope across the whole property, and that does not happen. He stated contours vary which is why you go on site and do a field survey. He stated contours are not evenly spaced as shown on the Exhibit Mr. Fiorvanti has shown. Mr. Geonnotti showed on his own Plan the circled notation of 88.2 survey spot shot which means it was field located in the field. Mr. Geonnotti stated Mr. Fiorvanti was saying that that the 88.2 contour hits at the second mark; however, that is not correct, and Mr. Fiorvanti was never on site to confirm that. He stated Mr. Fiorvanti indicated that he was using the Applicant's survey data; and if he was using their survey data, he would see the 88.2 spot shot, and they labeled that point on the Plan because they did look at the cross-sectional diagram and saw that the floodplain and the base flood elevation does vary across the property. He showed on the Plan where they measured to the corner of the house based on where the cross section hits which is 42.5, and worst case scenario, it is 88.2 at base flood elevation; and that is exactly where, based on their field data, that the 88.2 hits, and it is still off the house. Mr. Fiorvanti stated the proposed finished floor elevation is still 2' above this. He stated they are still constructing this as if they were in the floodplain even though they are not.

Mr. Zamparelli asked how many feet is the 88.2 mark from the house, and Mr. Fiorvanti stated it is approximately 3' off the house. Mr. Geonnotti stated Mr. Fiorvanti is doing equal spacing everywhere he goes between the contours, and that does not happen, and he was ignoring the 88.2 field shot. He stated Mr. Fiorvanti was not on site and could not confirm it. Mr. Geonnotti

noted his Exhibit, which is based on their field data, is accurate to within 1" which is less than 1/10<sup>th</sup>. He stated they also have a signed, sealed survey which is Exhibit A-7 which has been part of the Record since the beginning.

Mr. Geonnotti stated when they were out there, they did this in the fashion that you develop a site – you first do a wetlands investigation and the wetlands are flagged, and they have a signed, sealed report from a wetlands specialist. He stated they next did a field survey, and they field located all of the flags for the wetlands, the topography, the boundary, etc. He stated they then laid out a house, and the first plan they came in with had a house that was going to encroach into the floodplain. He stated that they were acknowledging that they were allowed to develop into the floodplain; but when they heard the concerns of the Township and the residents, they developed a new Plan based on the base flood elevation so that the house would be completely out of it.

Mr. Geonnotti acknowledged that there was a Note on the Plan about graphical plotting. Mr. Geonnotti stated there are Notes that are put on a Concept Plan that are there until they do the field survey; however, this Note then never came off of the Plan. He stated with the 88 they are referring to a base flood elevation that was based on a field survey that was pulled from the cross-sectional map. He reviewed the process they did to come up with the 88.2 as a worst-case scenario, and they are still out of the floodplain. He stated everything that they have done is sound engineering practice. He stated their survey is accurate to within less than a tenth. He stated they laid out the house to be out of the floodplain. He stated with regard to the stormwater feature, the bottom of the basin is above the base flood elevation of the 100-year flood storm so that the basin will never fill with water. He stated as you move away from the center line of the stream, there is basically no velocity around the edge. He stated their Testimony is that it will not touch the house because their survey is correct and it is accurate to within 1/10<sup>th</sup>. He stated he and surveyor have put their seals on the Plan. He stated they are staying out of the floodplain. He stated they are providing 200%, and the trees are an extra measure as the rain garden itself meets the stormwater criteria. He stated they are trying to enhance the benefit of developing the property and to be a good neighbor by adding the trees and other features.

Mr. Murphy stated the field survey depicted on the Plans was dated January 21 and January 22, 2021, which was long in advance of when either of the Plans were developed. He stated they were not trying to fashion a result by having a survey meet their design plans, and it was the other way, and the survey was done first, and then they did the Plans; and Mr. Geonnotti agreed.

Mr. Geonnotti stated Mr. Fiorvanti did not have a survey done in the field to show that the contours were equally spaced. He stated Mr. Fiorvanti did use one of the Applicant's Exhibits, but he ignored the field located data for an approximation technique which is not accurate.

Ms. Kirk stated there has been conflicting Testimony as to the base flood elevation, and she asked how Mr. Geonnotti's calculation affect the delineation of the wetlands buffer area that had been previously discussed in earlier Testimony.

Mr. Geonnotti stated wetland buffer and floodplain are two completely different natural resource protection standards. Mr. Geonnotti noted on his Exhibit wetlands flag 14, and that area is a 100' offset of the wetland itself. He stated it coincides with the floodplain because it runs along the stream, and the Township's natural resource protection standards require the protection of the floodplain over the wetlands, so that the floodplain is more important than the wetlands. Mr. Geonnotti stated they are not proposing any disturbance to the floodplain or the floodway, but they are proposing disturbance to the wetlands buffer, but that is outside of the floodplain.

Mr. Geonnotti stated Mr. Fiorvanti did not access the site, and he did not provide a signed, sealed survey showing that his points are by any means more accurate than the survey that the Applicant provided which was signed and sealed and submitted as Exhibit A-7. Mr. Geonnotti stated he has no reason to believe that his own surveyor is inaccurate with GPS data and tolerances within 1". He stated he can provide raw data, and he would ask Mr. Fiorvanti to provide his raw data as well. Mr. Geonnotti stated if it had been by graphical plotting, it would not follow the 88 contour.

Mr. Geonnotti stated if they were using his data, the contours are not evenly spaced, but Mr. Fiorvanti was evenly-spacing contours, which is erroneous because you cannot space contours evenly and you follow the grade of the site which is based on the field data and a field located spot shot of 88.2 which the Applicant's correctly followed and also highlighted with a leader.

Mr. Fiorvanti stated they did use the topography and he noted the yellow line which is the 88 and the 89 and the distance between the contours varies. He showed elevation 88.2 which is very close to where 88 is, and he also showed elevation 89. He stated it does not go past 89. He stated the contours were calculated, and he noted the steepness of the slope from 89 to 88 with the grade coming down. He noted the average grade between

the two. He showed the only spot elevation he had which is very close to 88. He noted one area which is a little steep, but that does not mean that at another location it would also be exactly that steep. He stated the average grade between the two contours was shown; and he showed where 88.2 would be if he uses the average grade. He stated he knows that on average from 88 to 89, each one is about 7' apart, and while they could be tighter in one location, they would be wider in another. He stated as a general rule between the contours, there is essentially an average.

Exhibit A-19 was marked, which is the highlighted General Notes of Zoning Plan Page 1, Exhibit A-4. Exhibit A-20 was marked which is the second page of Exhibit A-4, which is the ERSAM Plan, highlighting natural resource condition notes. Exhibit A-21 was marked, which is the highlighted survey notes of Exhibit A-7.

Mr. Connors stated earlier they saw photos of the rear lot that is in the wetlands buffer which was grass. Mr. Geonnotti stated those were photos from the neighboring property looking at the Applicant's site. Mr. Connors asked if it is grass all the way up to the stream, and Mr. Geonnotti agreed. Mr. Connors asked if there is any significant vegetation other than grass, and Mr. Geonnotti agreed. Mr. Connors stated the stormwater system that was designed is based upon less than 5,000 square feet which is per the Zoning criteria, and Mr. Geonnotti agreed. Mr. Connors asked what storm event is that to, and Mr. Geonnotti stated it is up to the two-year storm volume, but the system was designed to manage up to the fifty-year storm in that basin. Mr. Connors asked if the basin infringes into the floodplain at any point, and Mr. Geonnotti stated it does not. Mr. Connors asked if the discharge point infringes upon the floodplain, and Mr. Geonnotti it is using an existing discharge point through an outlet-controlled structure that is proposed. Mr. Connors asked if all the impervious surface that they are designing go to that basin, and Mr. Geonnotti stated it does not. Mr. Geonnotti stated there is a portion of the driveway that will run off into the rock swale and into the existing riprap basin all within the tolerances of the Ordinance for rate and volume control. Mr. Connors asked if there is a possibility to direct that to the basin; and Mr. Geonnotti stated they could look into that, but based on the grading and trying to keep the basin above the base flood elevation as well, there is a portion of run-off that will be "uncontrolled."

Mr. Solor asked about the use of pervious pavements, and Mr. Geonnotti stated they could look into that as well, and they are willing to provide pervious paving.

Ms. Lynn MacDonald, 2029 Farmview Drive, was sworn in. She stated she has lived in the Township for 38 years and most of that time she has owned two properties and seen a lot of changes. She stated she has seen the wetlands, woodlands, and farmlands brought up and turned into developments, adding she lives in one of those developments. She stated she understands that more than 400 properties drain into the watershed for the creek, and about 100 are downstream from this proposed home; and that is “significant.” She stated stormwater management in this area does not appear to have kept up with the development, and over the last four to five years since her brother has been in his house in this area, the increased run-off into the creek and subsequent flooding is “huge.” She stated a lot of the storms are very intense in a very short period of time due to climate change, and the creek has been totally flooded when there is just a half-hour heavy storm. She stated storms are now stronger, more frequent, and longer duration due to climate change; but we have gotten to this point “one street, one driveway, one house, one shed, one pool, one Variance at a time.” She stated in increasing the flow to this creek, it cannot handle any more. She stated in LMT, you cannot build on a floodplain, and you are required to protect the wetlands, and there is a limit on the amount of impervious surfaces allowed on a property. She stated there are specific setbacks to other properties required. She stated the Decks are asking for Variances on all of these. She stated in a Court of Law there has to be a burden of proof shown by the prospective homeowner that these Variances will cause no harm in the Township and to the hundred properties downstream from this location, and she does not feel that this has been proved. She stated “what has been proved is that it will be a disaster allowing to build on this Lot and a direct violation to the very Ordinances that the Zoning Board are personally entrusted to uphold.”

Ms. MacDonald stated the last time they met, there was a very “contentious conversation and questioning from the other side against the homeowner that was trying to protect the Ordinances.” She stated she does not understand why it is felt that allowing this building, disturbing the surrounding land, and disrupting the water flow even if it only adds “one more drop to the creek is in anyone’s best interest.” She stated it will not benefit the MacDonalds, the neighbors, the Silver Lake homeowners, or the Township. She urged the Board to deny this request.

Ms. Nancy Powers, 31 Edgewood Road, was sworn in. She stated she has requested Party Status. Ms. Powers stated she is on the corner of Woodland Drive and Edgewood Road, and has been there for thirty-one years. She stated she agrees with the prior speaker, and she does not feel there has been any



burden of proof that has been demonstrated by the people who desire to build a home on the Lot that there will “be no negative output” from building that home. She stated she feels it is “baffling the amount of time that we have all taken to discuss this and disputed it, and it is still controversial.”

She stated in the time she has lived here, the creek has been completely eroded. She stated she has two lots and a tennis court, and the creek backs up to it; and behind the tennis court where the property extends, in the last five years she has had flooding so badly that trees are uprooted, and her back yard is flooded out there. She stated she found an “endangered, rare turtle swimming in her pool” in the summer after a storm. She stated the creek at that time looked “like a raging river.” Ms. Powers noted all the wildlife in the area. She stated she “cannot imagine any neighbor wants to build a home where they are opposed by everybody in the vicinity.” She stated she agrees that “they will be under a microscope.” She stated she is not “selfishly worrying about the depreciation of her property value,” but she moved to Lower Makefield for all the reasons that everyone else has stated, and she asked the Board “to do the right thing.” She stated if this “house was not granted grandfather status, we would not be having this conversation, and it would be thrown out before it ever got into discussion.” She stated it is “appalling that this has been going on for months, and months, and months;” and she stated she “personally does not feel listening to both sides, that the party that chooses to build on this has given any further proof and accommodation that this will not disrupt everything that has already been stated.” Ms. Powers stated she is “vehemently against this and she begged the Zoning Committee to do the right thing for all of those reasons.”

Mr. Luke Butler, 2320 Weinman Way, was sworn in. Mr. Butler stated he is not seeking Party Status. Mr. Butler stated his family are members of the Makefield Lakes Community Association, and they support the Association’s objection to the development under consideration. He stated he does not actually live on the lake. Mr. Butler stated he has visited the lake many times, and the Board should understand that the lake lies about 2,500’ downstream from the proposed development, and as a resource, it is much more than a privately-owned lake that benefits just a few lakeside homeowners. He stated while it is surrounded by private property, it is functioning as the Township’s only public park with a lake of other side. He stated there are about 1,000’ of publicly-accessible shore line that the public is welcome to use and very often does use. He stated there are three public access points that have nearby street parking and the Association has signs posted welcoming the public and explaining the rules for using the site.

Mr. Butler stated over the last few years he has observed and spoken to a lot of people from outside the immediate neighborhood who come to use the lake including people from New Jersey. He stated it is a good catch and release fishing lake. He stated while there is not motorized boating, people do use kayaks, canoes, and stand-up paddle boarding. He stated there are also benches and a walking trail. He stated this lake is a great public resource which will be effected by this proposed development, and he asked the Board to consider this.

Mr. Boock stated Mr. Geonnotti indicated that his survey could be 1" off and the property being 3' off, he asked "if the property is beyond the margin of error of the survey and if the survey is 1" off would that put the property in the floodplain."

Mr. Flager stated when this matter is heard again, there will be Closing and Mr. Fenningham will be producing the sealed survey. Mr. Flager stated there is a full Agenda on December 7, and this matter could be Continued to December 21.

Ms. VanBlunk moved, Mr. Solor seconded and it was unanimously carried to Continue the Appeal to December 21, 2021.

There being no further business, the meeting was adjourned.

Respectfully Submitted,

Matthew Connors, Secretary