

1 1 TOWNSHIP OF WEST ORANGE 2 DEPARTMENT OF PLANNING AND DEVELOPMENT 3 WEDNESDAY, FEBRUARY 26, 2025 4 6:30 P.M. 5 RE; PB-24-01 WEST ESSEX HIGHLANDS, INC. 6 7 8 BOARD MEMBERS: 9 ROBERT BAGOFF, Chairman 10 JERRY GUARINO, Vice Chairman 11 SUSAN MCCARTNEY, Mayor 12 LEE KLEIN 13 WILLIAM WILKES II 14 LEE D. KLEIN, PE PTOE 15 LORI KAPFERER (Alternate 2) 16 JOHN R. CARDOZA (Alternate 1) 17 KEN ALPER 18 SUSAN SCARPA, Council Woman 19 20 JORDAN RIZZO, Engineer 21 STEVEN MARTINI, Planner 22 JAMILET BAQUERIZO VITE, Board Secretary 23 GENIECE GARY-ADAMS, Zoning Official 24 JOSEPH FAGAN, Zoom Moderator 25 2	3 1 2 INDEX OF EXHIBITS 3 4 <u>EXHIBIT</u> <u>DESCRIPTION</u> 5 0-5 HYDRO REPORT 6 0-6 CD FROM COMPUTER 7 0-7 COLORIZED DIAGRAM 8 0-8 COLORIZED DA-1 FROM OBJECTOR 9 0-9 COLORIZED DA-2 10 0-10 COLORIZED WITH RED ARROWS 11 0-11 SAMPLE TEST PIT LOG 12 13 14 15 16 17 18 19 20 21 22 23 24 25
1 APPEARANCES: 2 3 HUTT, SHIMANOWITZ & PLOCKER, ESQS. 4 BY BRYAN D. PLOCKER, ESQ. 5 Bplocker@huttshim.com 6 459 AMBOY AVENUE 7 WOODBRIDGE, NEW JERSEY 07095 8 Appearing on behalf of the Applicant 9 10 GACCIONE & POMACO, ESQS. 11 BY DIANA P. MCGOVERN, ESQ. 12 ONE BOLAND DRIVE, SUITE 102 13 WEST ORANGE, NEW JERSEY 07052 14 Appearing on behalf of the Board 15 16 BRUCE I. AFRAN, ESQ. 17 10 BRAEBRUN DRIVE 18 PRINCETON, NEW JERSEY 08540 19 Appearing on behalf of the Objector, We Care NJ 20 Corp. 21 22 23 24 25 4	4 1 CHAIRMAN BAGOFF: PB-24-01 West Essex 2 Highlands, Inc. Block 179 Lot 32, Warner Road. The 3 applicant is proposing to develop a 496 unit 4 inclusionary multifamily residential development on a 5 vacant 120 acre property in the northwest corner of the 6 Township. 7 Mr. Plocker, would you like to put your 8 appearance on the record. 9 MR. PLOCKER: Yeah. Good evening everybody. 10 Bryan Plocker with the firm Hutt, Shimanowitz & Plocker 11 on behalf of the applicant. 12 CHAIRMAN BAGOFF: Mr. Afran, you have the 13 floor, sir. 14 MR. AFRAN: Good evening, Mr. Chairman. 15 Bruce Afran. I'm counsel for the objector, We Care NJ. 16 We will be presenting two witnesses tonight. 17 I understand the developer still has some witnesses to 18 go, we'll come back, but in the interim we're going to 19 start with our witnesses. I don't think we'll be that 20 long tonight, both witnesses will be relatively short, 21 depending of course on questions from the board, the 22 public and Mr. Plocker, but we have Sean Walsh from 23 Princeton Hydro is our first witness, who will be 24 speaking to stormwater management issues and we have 25 Emile DeVito from the New Jersey Conservation Foundation

5 1 who will be speaking on forestry issues and related 2 ecological testimony. 3 CHAIRMAN BAGOFF: Go right ahead. 4 MR. AFRAN: Because Mr. Walsh needs to be 5 near Mr. Fagan's setup, we'll sit back here and present 6 from over here. 7 MS. MCGOVERN: Mr. Walsh, will you please 8 raise you right-hand. 9 Do you swear or affirm to tell the truth the 10 whole truth nothing but the truth. 11 THE WITNESS: I do. 12 MS. MCGOVERN: Thank you. 13 S E A N W A L S H, having been duly sworn testifies 14 as follows: 15 Q. Mr. Walsh, would you just introduce yourself and 16 give your academic and professional qualifications -- I 17 will repeat that for the record. Is there a second mic 18 for Mr. Walsh to use? 19 Mr. Walsh, would you please describe for the 20 board your academic and professional qualifications and 21 associations? 22 A. Hello. I am a professional engineer, been a 23 professional engineer for about 15 years. I graduated 24 Rutgers University with a bioenvironmental degree in 25 engineering, a bachelor's, and went back and got a	7 1 they've already done than, we were at the Appellate 2 Division, so I just wanted to state that and preserve 3 that for the record. Thank you. 4 CHAIRMAN BAGOFF: So unless any members 5 of the board have any questions, we accept Mr. Walsh as 6 a licensed engineer in the State of New Jersey. 7 MR. AFRAN: Yeah, I just don't know if Mr. 8 Walsh mentioned he's employed by Princeton Hydro. 9 That's a further qualification. 10 And just in terms of Mr. Plocker's 11 objection. I understood he would make that statement. 12 It is on appeal and there are three towns that filed an 13 initial challenge and may file an appeal and it's our 14 contention the board does have an independent duty to 15 assure itself that qualifications in this field are met 16 in terms of stormwater management. That may be a legal 17 dispute but in addition because the developer offered 18 testimony in this field it is very proper for us to 19 respond. 20 CHAIRMAN BAGOFF: Go right ahead, sir. 21 A. I just want to say one thing about the DEP 22 approving the plan. The Township still has its own 23 responsibility to review and approve plans. Make sure 24 it meets the local ordinance. The municipal ordinance 25 is pretty clear that if something is wrong and it's
6 1 degree, a master's degree, in civil engineering from 2 Rutgers University. 3 I'm also the stormwater municipal engineer in 4 Susquehanna Stillwater, Reading Township, Peapack 5 Gladstone Township and Mendham Township in New Jersey. 6 I also review plans for East Vincent Township in 7 Pennsylvania. 8 CHAIRMAN BAGOFF: Is your license current in 9 the state of New Jersey? 10 THE WITNESS: It is current in the State of 11 New Jersey, yes. 12 CHAIRMAN BAGOFF: Any members of the board 13 have questions or Mr. Plocker? 14 MR. PLOCKER: All right. I just, I know the 15 board will have some leeway, which they do with all 16 witnesses, but the applicants would like to state an 17 objection for the record. It is my understanding this 18 witness is going to be addressing stormwater design and 19 as the board and everybody here is aware, my client did 20 receive it's DEP approval, it's DEP permit on November 21 15, 2024. We'll listen to what he has to say but it's 22 going to be our intention that whatever's going to be 23 discussed from this witness tonight is not within this 24 boards purview. We have approvals from DEP, if they 25 want to take it up with the DEP they can do that,	8 1 missed in the review process the town could be held 2 accountable not the DEP. So that's why it's important 3 for the town to do an independent review and I know of 4 at least one instance where something was missed by the 5 planning board, something got built and the town was 6 held accountable to make the repairs to the system. So, 7 so these things are always more expensive to fix once 8 they're built than when they are on paper. 9 CHAIRMAN BAGOFF: Thank you. 10 Go right ahead, sir. 11 MR. AFRAN: Mr. Walsh will present his 12 presentation, I may interject occasionally with 13 questions. 14 CHAIRMAN BAGOFF: Thank you. 15 A. All right. Thank you very much for your time. 16 I'm going to try to be as efficient as I can. I 17 appreciate it. 18 First thing I'd like to talk about is the soil 19 logs that were provided as part of the submission 20 package. Now, DEP requires soil logs to be performed to 21 learn more about the site. They're a really important 22 part of the initial analysis part of a project. Soil 23 logs tell us important things about the site. It will 24 tell us where the seasonal high water table is. It will 25 tell us what the infiltration rates are in different

9 1 areas of the site and also tells us what the soils are 2 underneath the surface. They're an important aspect of 3 the project that will limit how you build your design. 4 It eliminates how you design because for example the 5 seasonal high water table have, all BMP's have to be at 6 least two feet above it. What was interesting, and I 7 have soil logs on the board here, they identify the 8 seasonal high water through two processes. You dig a 9 hole and look for water coming out of the ground and 10 then also look for something called mottling. Is anyone 11 familiar with the term mottling? It's a coloration that 12 occur's within the soil. And that can also be used to 13 identify the seasonal high water table. What's 14 important about that is that the seasonal high water 15 table fluctuates on a daily basis based on how often it 16 rains, when was the last time it rained, but the 17 mottling doesn't change. The mottling is built on years 18 and years of the water always changing. So the mottling 19 is what can show you truly the seasonal high water 20 table. And what's unusual about these soil logs, and 21 it's a lot of soil logs for this site, is that there's 22 never any mention of mottling, ever. And in the DEP 23 manual it explicitly says you should use mottling 24 wherever present to identify where there's a high water 25 table because, once again, water levels can change every	11 1 Q. Let me ask you one question. Is there a date you 2 can identify so later looking at record we have a 3 reference point? A date of the soil logs. 4 A. There's three dates. There's three different 5 reports they submitted. One is dated April 19, 2021. 6 One is dated February 12, 2024. And then the third one 7 is dated April 4, 2024. 8 CHAIRMAN BAGOFF: Thank you. 9 A. Some of the designs they presented here are the 10 bare minimum separation for seasonal high water tables. 11 So immediately there's a concern that, you know, if 12 they're underestimating the seasonal high water 13 elevation. Now, if you went back and looked at the 14 mottling you might find that there's not enough space 15 since it's already noncompliant with DEP regulations. 16 And I would think that the geotechnical engineer who did 17 these should provide some testimony as to why mottling 18 is absent from any of these reports. It's very unusual. 19 I've seen plenty of these, the DEP manual is very 20 explicit that it should discuss what mottling is. 21 MR. AFRAN: Could I just note for the 22 record, a minor point. I think Mr. Walsh is referring 23 to mottling as M-O-T-T, not M-O-D, as in David. 24 CHAIRMAN BAGOFF: The change in coloration 25 based on the soil.
10 1 day. So the chances that you dig a hole when the water 2 is at it's highest level is very low. So that's the 3 first thing that I want to call into question with some 4 of the data presented here. They only state the 5 seasonal high water table is where they find water, but 6 the odds are they're underestimating where the seasonal 7 high water table is and that is our immediate concern 8 because that's one of the initial site restraints on how 9 deep you make the basin is. If you can't make them deep 10 enough you have to make them wide. So they have a big 11 impact on your site. 12 All right. And just to hammer the point a little 13 bit. For example -- 14 CHAIRMAN BAGOFF: Mr. Afran, if I can ask, 15 there's a Princeton Hydro report dated November 15, 16 2024, is that what you're referring to? Looking at the 17 table. 18 THE WITNESS: No, I'm referring to -- I'm 19 referring to -- these are the soil boring logs that were 20 presented by the applicant as part of their submission. 21 CHAIRMAN BAGOFF: Okay. 22 THE WITNESS: That letter was just a review 23 of their submission. 24 CHAIRMAN BAGOFF: I want to be clear for the 25 record.	12 1 MR. AFRAN: Yes. For the record and the 2 reporters benefit, it's M-O-T-T. 3 CHAIRMAN BAGOFF: L-I-N-G. 4 MR. AFRAN: L-I-N-G. 5 MS. MCGOVERN: Okay. Thank you. 6 A. I apologize. 7 All right. Next I would like to talk about, we 8 reviewed all the soil borings to confirm that they did 9 have the space necessary for the seasonal high from the 10 bottom of the storage basins to the seasonal water high 11 table. And unfortunately during our review we found 12 they actually missed some of it. In their reports and 13 in their plans they do cite some of the borings but they 14 don't cite all of them. There are some instances where 15 they missed previous reports. I would like to now look 16 at Porous Pavement Section 4. 17 Q. Could you give me a description as to this 18 document? 19 A. So what we're looking at now is the construction 20 drawings that the applicant had submitted. This is a 21 cross section of Porous Pavement 4. 22 All right. So you will see they reference 23 seasonal high water table at 567 and what they did here 24 is they used the report from 2024 to reference the 25 seasonal high water table, but if you look back at the

13 1 previous reports in 2021 you'll find that the seasonal 2 high was done at a higher elevation. 3 All right. Here at test pit number 10 the 4 seasonal high water level is found three feet below 5 grade, the surface elevation was 57 -- 573. 6 Q. Now, will you show us the other elevations? 7 A. Yes. 8 This is the location of test pit number 10. 9 This is the location of test pit number 10 and 10 this is the location of porous pavement number 4. So 11 you can see the close proximity to it, but they didn't 12 make reference to it in their plans. I think it's 13 something they missed, but let me scroll back down now. 14 You see here the seasonal high water table based 15 on test pit number 10 is in the storage area space, it's 16 not down here at 567. Right now this storage basin 17 isn't compliant. In fact right now this area here, it's 18 called, Clean Storage Bed, this is where the porous 19 pavement would hold and retain water. That's going to 20 be filled up mostly with seasonal high water table, so 21 it's not going to have the storage that the planners 22 predicting. The basins going to overflow quicker. Peak 23 flows going to come out quicker and it's going to be an 24 issue. 25 Now, I'd like to point out two more plans. Two	15 1 So here, which is a slightly different location 2 than the other test pits, but the groundwater is only 3 two feet below surface elevation, which is 608. I'll go 4 back to show you where the seasonal high water table is. 5 The grade elevation is at 50 -- they're calling it 508. 6 This profile changes a bit, but right now the seasonal 7 high is above the surface of the pavement. Again, the 8 storage here in this parking lot is not going to be 9 used. It's going to be taken up by the seasonal high 10 water table, at least that's what we can tell from now. 11 So, again, the basis are going be overwhelmed earlier 12 than you think. It's not going to be able to 13 infiltrate. Peak flows are going to increase. 14 Q. And this is the drawing, as it says on the 15 screen, for basin 6 out -- basin outlet structure number 16 6, is that correct? 17 A. Yes, it is. And this is where I want to point, 18 again, on my earlier point, where these are seasonal 19 high water elevations that we got from the presence of 20 the water. It's not what the mottling was. So these 21 elevations can be even slightly higher which would 22 exacerbate the problem we've seen already. 23 I have one more example here and then I'll move 24 on. I'm going to go to basin number 9. All right. 25 All right. Basin number 9 it says, seasonal high
14 1 more instances of this. Porous pavement number 6. 2 Okay. Again, here they reference two test pits, test 3 pits 42 and 43. But what they forgot to do again is 4 look at the 2021 plan, it shows a different story. 5 There's another test pit, test pit number 4, this shows 6 the elevation much higher. Shows it about ten feet 7 higher. Actually it's higher than the grade elevation 8 they show. So let me -- 9 Q. Which screen are you showing now? 10 A. Now I'm going to show the plan to show you the 11 reference points of the test pits and then I'll show the 12 soil borings to confirm the elevations. 13 This is the location of test pit number 4. They 14 referenced -- now, these are test pits 43 and 42. These 15 are the ones they reference that show the seasonal high 16 water table. The elevation here was 619, test pit 17 number 4. Seasonal high water table was found -- sorry, 18 got my notes a little confused. Oh no, sorry. I 19 forgot, there's an error here on this report. 20 Now, it doesn't say seasonal high water table in 21 here but the seepage is at two feet. Seepage, that 22 means the groundwater is leaking through the sidewalls 23 of the test pit which means you hit the seasonal high 24 water table. 25 So I would like to revert back to this plan now.	16 1 water table is at 548, we're at test pit number 6. And 2 we're going to go to test pit number 6. This was 3 actually 2004 test pits. 4 Now, on this report it says the surface grade 5 elevation was 574. The water level elevation, that's 6 where they're saying they found seasonal high water, is 7 eight feet below that, that's 568. The plan here claims 8 that it's 20 feet lower than what's found in the grade. 9 So once again the seasonal high water table is going to 10 be much higher, it's going to fill up the storage area 11 of this basin, it's not going hold any water, it's not 12 going to detain, it's not going to be able to have peak 13 flow elevations. It's going to increase flooding. 14 These are three instances where we found that the 15 seasonal high elevation -- seasonal high water table is 16 higher in the documents than what they show on the plan. 17 Since the plan, these designs aren't compliant they 18 could risk increasing runoff and exacerbating flooding 19 downstream. 20 MR. AFRAN: I just want to note for the 21 record, this diagram on the screen is Basin Outlet 22 Structure Number 9. 23 A. All right. 24 Next thing I want to talk about is boring logs 25 that, DEP in Chapter 5 of the BMP manual, which is the

17 1 guide they provide to engineers to design stormwater 2 structures according to the standards. They have rules 3 about how many test pits you're supposed to dig for 4 every basin or underground structure you're going to 5 build. It's mostly based on size of the structure. So 6 you have minimal of two and then the larger the 7 structure gets the more they want you to dig test pits 8 for. As you can see in the first example I gave with 9 porous pavement number 4 there could be a lot of 10 variation. Lots of different test pits to make sure you 11 capture the entire picture. You're not missing 12 anything. 13 We did note that not all of the -- not all the 14 test pits were dug for all areas. For instance five, 15 six, eight, nine and ten there were test pits for it but 16 then 7 they should've dug three test pits, they only dug 17 one, that isn't compliant. And then you're thinking 18 Sean Walsh is being a stickler, there's only one, but 19 again porous pavement number 4 there can be a lot of 20 variations. Some of these are very large basins. It's 21 important to be able to capture the entire story of 22 what's going on underneath the ground for these basins 23 so you don't have a mistake and you don't -- you make 24 sure you have the capacity that you're designing for. 25 So that actually notes that six of the 12 basins	19 1 just a small storm but they want to see what happens 2 during the larger storms. To give you guys a 3 perspective, the water quality storm is about an inch 4 and a quarter. The ten-year storm -- sorry. The 5 100-year storm is eight inches of rain. So it's a much 6 more significant amount of rainfall, so mounding can be 7 significantly different. 8 All right. One other section, porous pavement 3 9 from the applicants design plan. 10 Q. For the record, this is a diagram headed, Basin 11 Outlet Structure Number 3. 12 A. It's a profile section of porous pavement number 13 3, sorry. So it's a cross section or a profile of the 14 porous pavement system. 15 So when you have a history of pavement or porous 16 core stone, you have stone storage and now your soil 17 replacement permeability and that soil replacement 18 permeability ends at the seasonal high water table, what 19 happens -- 20 Q. When you say, ends, do you mean the bottom line 21 of the soil section or the top line? 22 A. The bottom. The bottom of the soil replacement 23 ends at the elevation of the seasonal high water table. 24 Q. Thank you. 25 A. Okay.
18 1 do not have the sufficient number of test pits they're 2 supposed to have. 3 All right. Next I would like to talk about 4 groundwater mounding. Groundwater mounding is the 5 process of, you'll have the seasonal high water table on 6 this level here. During a rain event -- I'm sorry, I'm 7 pointing using my hands. It's on a level, right. It 8 rains, when you have a concentrated area of infiltration 9 like a basin, it will mound a little bit. It's a normal 10 process, the DEP has a form and it's a calculation you 11 have to fill out to make sure that the mound doesn't get 12 to far or perhaps get into someone's basement, I'm sure 13 everyone's familiar with that, when it rains the mound 14 rises. So they make you -- they provide a form, you 15 have to fill it out and demonstrate that you're not 16 mounding anywhere to cause any issues. Now, typically 17 you have to do this for the water quality storm and, you 18 know, the applicant provided all the forms for that and 19 it was compliant. But what the applicant does with some 20 of these basins is they use infiltration as a way to 21 keep the flow -- reducing the peak flow runoff rate. So 22 that's, they're not just passing the water through pipe, 23 they're pushing the water through the ground. So in 24 those situations you also have to do groundwater 25 mounding for a 100 year storm. The DEP wants to see not	20 1 So what they did here was, when they did the soil 2 borings they did all the soil tests, they measured 3 infiltration rates as well, because they needed to know 4 how quickly the water would go into the ground. And 5 what they found was that this ground doesn't have great 6 infiltration rates, which is not unusual or unexpected 7 for this area. So what they chose to do is they chose 8 to replace that soil. They dig deeper in the bottom of 9 the basin and replace that soil with sand material 10 that's a much higher infiltration rate. Allows the 11 basin to go, to go down quicker and get rid of the water 12 quality storm. Here's the problem, it wasn't the water 13 quality storm, and that's why mounding is fine if you 14 didn't have any issues, but the issue here is -- so the 15 sand here you can see it says eight-inches per hour 16 infiltration rate, which is fantastic. But when you get 17 down to this soil that's when the soil infiltration rate 18 becomes 0.25 inches per hour. This is effectively a 19 wall. So what you need to demonstrate is that when 20 you're infiltrating the 100-year storm you need to show 21 whatever you're promising to infiltrate you can hold 22 that water in here. That you don't have any, the 23 groundwater mounding is not supposed to go into your 24 storage. It's supposed to get down and not interfere 25 with the storage of your basins.

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1 **So you're probably asking yourself, how do you do**
2 **that. What you do is you go to the modeling. We look**
3 **at their model, we decide -- they show how much water**
4 **they're going to infiltrate during the 100-year storm.**
5 **So let me go to the model for one moment.**
6 **Q.** At this point the model as in M-O-D-E-L?
7 **A.** Yeah, the stormwater model, M-O-D-E-L.
8 **Okay.** Right now we're looking at the stormwater
9 **report provided by the applicant. This is for basin**
10 **number 3, that's what they call porous pavement section**
11 **number 3. It's essentially an underground stormwater**
12 **basin. You'll see here, this is kind of a -- they use**
13 **the modeling software HydroCAD, which is a summary of**
14 **different volumes. Discarded section is the**
15 **infiltration. It's discarded because it doesn't go into**
16 **any of the pipes. It just kind of goes away. It**
17 **disappears. Right. So they say that during the**
18 **100-year storm, which is shown right here, they're going**
19 **to infiltrate 10,971 cubic feet of water. So now, we**
20 **have to translate that into a height, we're looking at a**
21 **profile and right then on the same page they give the**
22 **surface area of the basin, which is 5,227. So if you**
23 **divide the 10,000 number by the 2 -- by the 5,000**
24 **number, you roughly get two feet of water. So that**
25 **means you're going to have two feet of standing water in**

22

1 **that basin that they got to hold before the storage.**
2 **Let me go back to the plan.**
3 **Now, I'm going to go back to the plan. So now**
4 **what you're thinking is, all right, so tell me, talk**
5 **about how long. Right. Here it says two feet, no**
6 **problem. That's two feet full of sand. We're talking**
7 **about two feet vertical of just plain vertical water.**
8 **So you have to fit the water with the sand. Sand**
9 **significantly has what we call a void ratio of 0.4.**
10 **Which means if you have one cubic foot of sand, 40**
11 **percent of it is empty space. So you would take that**
12 **two feet of water and you would divide it by 0.4, and**
13 **that's how high -- that's the height you would have of**
14 **water with sand.**
15 **All right. When you divide two -- it's 2.1, when**
16 **you divide 2.1 by 0.4 you have 5.25 feet of water. And**
17 **at this point it's going to exceed the height of**
18 **pavement. Again, the water's being held, the water's**
19 **going to be trapped by this slow infiltrate soil, it's**
20 **going to build up in the sand, it's going to exceed the**
21 **sand depth, it's going to fill up the void space in the**
22 **storage area, more water's going to go through the pipe.**
23 **The amount of peak flow rates they show in the models**
24 **aren't correct. It's going to capture, the storage is**
25 **going to -- sorry, the runoff is going to go more**

23

1 **through the pipes and it's going to run into this wall.**
2 **Q.** What happens it when goes through the pipes?
3 **A.** When it goes through the pipes the peak flow rate
4 **they report in the model is inaccurate, it's under.**
5 **It's going to be higher, which means that they have**
6 **limitations on how high they can make the peak flow**
7 **runoff for this developed site. It's supposed to be**
8 **less than what exists and right now for this situation**
9 **it's going to be higher for the larger storms.**
10 **Now, we saw -- now, I used porous pavement**
11 **section number 3, we saw the same instance in porous**
12 **pavement number 4, 5, 6, basin 7, 8, 9 and basin 10. So**
13 **now, I'm not going to through all these because I**
14 **respect your time, but I want to detail an example. It**
15 **wasn't always this extreme but in those basins the**
16 **stormwater, it's going to affect the peak flow runoff**
17 **rate, which is really crucial because we do have**
18 **flooding downstream and we have to meet certain peak**
19 **flow rate reductions and what they are reporting is not**
20 **going to happen in reality. These basins are going to**
21 **be strained by the storage from too much flow, too much**
22 **runoff being trapped and we're going to have higher peak**
23 **flow rates.**
24 **Q.** What does that translate to in terms of practical
25 **counts?**

24

1 **A.** It means that the water's not going to infiltrate
2 **like the model says. It means more water in the pipes,**
3 **more water going downstream and you can potentially**
4 **increase the water coming off the site and reduce it,**
5 **which you're supposed be doing according to the**
6 **standards and if you increase the runoff you can get**
7 **flooding, or you can get more flooding.**
8 **All right. I would like to, now that we propose**
9 **a new high water table, I would like to take a moment to**
10 **talk about runoff in general.**
11 **Q.** Let me just identify the screen, if I can.
12 CHAIRMAN BAGOFF: One second, I'm sorry.
13 Let it be noted Mr. Cardoza joined the planning board.
14 Thank you.
15 MR. AFRAN: It says on the bottom, Figure 1,
16 Proposed Grading Plan. And then it has additional
17 words, With blue arrows showing the existing drainage
18 path and the red arrows showing the proposed drainage
19 path and how the runoff is being diverted from the
20 wetlands. I'm just reciting that so we have a reference
21 point.
22 **A.** This figure is from the letter we submitted to
23 **the DEP based on our review of the applicants**
24 **submission.**
25 **MS. MCGOVERN: O-5, that we marked November**

25 1 15, 2024? 2 MR. AFRAN: Yes. 3 THE WITNESS: Yes. 4 A. All right. So what I did here was I took a plan 5 that the applicant provided and I superimposed some 6 arrows to give some direction here. So I want to talk 7 about how the wetlands are going to be affected by this 8 development. The blue arrows show the direction of 9 runoff in the existing condition, so they basically 10 travel perpendicular to the contour lines. You can see 11 the runoff up here contributes to the wetlands up here 12 and so forth. Runoff that runs here runs parallel and 13 it feeds a continuous line of wetlands right here. Same 14 with over here and over here. They're rerouting -- the 15 runoff is spread equally. 16 Now -- 17 Q. Are these -- let me ask you one question. 18 The blue arrows, are they reflecting present 19 conditions on the site before the development? 20 A. Yes, they're showing present conditions of the 21 site. 22 So now what else is on here is the red arrows. 23 The red arrows show how the water that lands on the 24 developed area will be rerouted due to the stormwater 25 system. So for example, in this section here in the	27 1 through these area. 2 Q. For the record, the area to the left is a dark 3 green color, the area to the right is a light green 4 color. And obviously if anyone sees the black and white 5 version and wanted to define the two color sections. 6 This is a newer document with Mr. Walsh's color 7 additions superimposed on the document already in the 8 record. So some point we should mark this as an 9 objectors exhibit, I believe. 10 MS. MCGOVERN: We don't have that yet? 11 MR. AFRAN: No, we'll have to supply that. 12 MS. MCGOVERN: All right. So let's see, we 13 are going to call that one O-8, because we already got 14 some exhibits from you earlier today. The Princeton 15 Hydro report is O-5. CD from his computer is O-6 and 16 the color diagram that you sent was O-7. So this will 17 be O-8 and we'll call this colored -- 18 MR. AFRAN: I suggest we might call it -- 19 MS. MCGOVERN: DA-1. 20 MR. AFRAN: Yeah. DA-1. Colored DA-1. 21 MS. MCGOVERN: All right. 22 MR. PLOCKER: Could we just make it clear 23 for the record, I know you say DA-1, but this is 24 something that my client submitted. Could we just get 25 clear for the record that this is something that was
26 1 existing condition the blue point this way. Now the red 2 arrows point towards the street. The stormwater runoff 3 would be captured by the parking lot, put into the 4 stormwater pipes, it will travel down the road and it 5 will go into these basins. Same with over here and same 6 with over here. So instead of equally distributing the 7 runoff to the entire wetlands a large portion -- a 8 portion of land runoff that used to go here now is going 9 to be rerouted. It's going to avoid these upper 10 wetlands and go into this basin and get discharged down 11 here. So the drainage for these basins are going -- the 12 drainage area for these wetlands are going to change due 13 to the development. 14 Q. Now, you just referred to the upper wetlands. 15 You are referring to the left side of the diagram. Is 16 it fair to say that the same would apply to the wetlands 17 in the center and on the right side of the diagram? 18 A. Yes, that's true. 19 Q. Thank you. 20 A. All right. So this is an existing drainage area 21 map that the applicant provided with their submission. 22 What I did is I superimposed rough drainage areas for 23 the wetlands and for this point of discharge. It is the 24 printout used in their models and I'm trying to 25 demonstrate the drainage area that feeds the wetlands	28 1 colored by the objectors witness and if we could get a 2 date. I just want to make clear for the record that 3 this originally was our document. 4 MS. MCGOVERN: All right. This is what 5 we're going to call it, colored DA-1 from objector. 6 MR. AFRAN: We agree the original document 7 was submitted by the applicant. 8 MS. MCGOVERN: The colored version? 9 MR. AFRAN: Colored version -- 10 MS. MCGOVERN: Yeah. Okay. So DA-1, 11 colored version by the objector. 12 MR. AFRAN: Yes. 13 MR. KLEIN: Didn't change the shape and size 14 of the areas, just colored them in, is that correct? 15 THE WITNESS: No, I drew the drainage area 16 with the wetlands there. So I drew in that green. I 17 didn't colorize it. I used the contours that he had and 18 those green areas are drawn by me. Sorry for the 19 confusion. 20 MR. KLEIN: What was it before you drew that 21 on there? What was that drawing. 22 MR. AFRAN: It was -- DA-1 as was submitted 23 by the applicant. What Mr. Walsh has done is he used 24 the contour lines on the original exhibit to demonstrate 25 two drainage areas on the existing site, as shown as

29

1 existing conditions. So in other words, the contour
2 lines reflect where the water will move and Mr. Walsh
3 has created the two drainage areas that he has discerned
4 based on the contour lines on the site as they exist
5 today.

6 Is that correct?

7 THE WITNESS: Yes.

8 MAYOR McCARTNEY: Did he change anything?

9 MR. AFRAN: He hasn't change any existing
10 contour lines. Simply identified where on the document
11 the two drainage areas exist.

12 **A. Correct. Let me, I think I -- so, no, let me**
13 **explain. What they show on this map is the drainage**
14 **area of the disturbed area. So what I did was I used**
15 **the coloring to show what would feed the entire wetland.**
16 **That's it. That's the difference.**

17 **MR. KLEIN: Yours is existing, their's is**
18 **proposed?**

19 THE WITNESS: This is existing.

20 MR. AFRAN: I think I understand. What's
21 happening is on the original version the drainage areas
22 showed by the applicant was reflecting the area of
23 disturbance and drainage from that area. Mr. Walsh has
24 shown drainage areas more broadly as they exist on the
25 site. So he's showed -- he's showing other drainage

30

1 areas not just drainage from the area of proposed
2 disturbance.

3 **Q. Is that a fair summary or am I incorrect?**

4 **A. Yeah, that, I wanted to show you the original**
5 **one, the original DA that they had here. They point**
6 **out, they had this disturbed point. They're only**
7 **concerned -- they show the drainage area in the**
8 **disturbed area. I was showing what's in the entire**
9 **wetland, that's why I had the color. That's why I used**
10 **colorization.**

11 **COUNCIL PERSON SCARPA: Is that because**
12 **there's other wetlands to be affected, so he's showing**
13 **all different --**

14 THE WITNESS: I want to show everything, not
15 just what was disturbed.

16 COUNCIL PERSON SCARPA: And how it would
17 affect each other?

18 THE WITNESS: Yeah, and how that interacts.
19 Sorry for the confusion.

20 MR. AFRAN: Let me note, I was attempting to
21 answer the question but obviously Mr. Walsh's opinion is
22 authoritative, not mine. So his description obviously
23 governs. To the extent I differ, Mr. Walsh is correct.

24 **A. Now, the area on the left is about 32 acres and**
25 **the area on right about 48.4 acres. Now, I'm going to**

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1 **show you one more figure for this.**

2 MR. AFRAN: What's on the screen now is a
3 colorized version of DA-2 and Mr. Walsh will explain.

4 **A. All right. Can you see here, now we're looking**
5 **at a proposed drawing and what I did was I, once again,**
6 **drew the drainage areas that would feed the wetlands and**
7 **what is shown is how that would change. You can see how**
8 **it's through the developed area, because those no longer**
9 **contribute to wetlands over here, over here or down**
10 **these areas, the flows being routed to basins at the**
11 **bottom of the site. And what we wanted to show was that**
12 **there was a reduction in the drainage area and the**
13 **wetlands. On this side the drainage area was reduced by**
14 **about 9 acres, a 20 percent reduction.**

15 **Q. You mean the left side, the darker green?**

16 **A. Left side, darker green. And on the right side,**
17 **the lighter green, that was a reduction of 16 acres,**
18 **which is a 33 percent reduction. Just wanted to point**
19 **that out and there would be an impact to the wetlands.**

20 **MS. MCGOVERN: Okay. This is another new**
21 **exhibit. This is going to be O-9 and we'll have to get**
22 **that one submitted.**

23 **So it's colorized DA-2.**

24 **A. All right. Next I would like to talk about time**
25 **of concentration. Time of concentration is a bit of a**

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1 **technical term but a very important term. So time of**
2 **concentration is the time it takes for a piece -- for**
3 **water to go from say the highest point on the watershed**
4 **down to the discharge point. It's the time -- and that**
5 **time is very important. That time helps dictate the**
6 **peak flow runoff, especially in existing conditions**
7 **modeling. Once again, that's restraining. When we**
8 **develop existing conditions we know what's flowing off**
9 **the site in existing conditions and DEP will require you**
10 **to meet reduction rates so you're not causing flooding**
11 **further down stream.**

12 **This is an old document, this is, this DA-1 from**
13 **the report submitted by the applicant.**

14 **Q. So this is not a colorized version, this is the**
15 **original DA-1, is that correct?**

16 **A. So the only difference is I put two scaled**
17 **measurements on here just to show the difference, that I**
18 **will get to in maybe ten minutes.**

19 MR. AFRAN: So since it's on the screen, Ms.
20 McGovern, I think we probably should make it O-10, which
21 is DA-1 with colorized red arrows. Would that be a fair
22 description?

23 MS. MCGOVERN: Yeah. Just the red arrows?

24 THE WITNESS: Just those are all I added and
25 you'll see why in like maybe five minutes or something

1 like that.

2 MS. MCGOVERN: Okay.

3 A. All right. Now, time of concentration is, as I
4 said, how water flows through to get to the end
5 discharge location. Water flows in different ways.
6 This sheet flow is the shallow concentrated flow. Sheet
7 flows is, as you can imagine, if there's a field and it
8 starts to rain, kind of the water moves like a sheet
9 along the ground. Now, as the water progresses and it
10 builds up it will actually start to consolidate and it's
11 called, something called shallow concentrated flow.
12 Now, the DEP has rules on how you calculate that.
13 That's all outlined out the Chapter 5 in the DEP manual.
14 And what he found is when we looked at the rate the
15 applicant calculated was, unfortunately it seemed like
16 they had used an older version of how to calculate time
17 of concentration. The rules and methods that we're
18 supposed to use to calculate time of concentration has
19 changed over time and unfortunately from what we can
20 tell is that they used the older version. And this
21 older version generated a lower time of concentration.
22 So let me give you, I want to use the shallow
23 concentrated flow as an example, and kind of a dead
24 giveaway is you see here the shallow concentrated flow,
25 unpaved. Now, it wasn't that long ago but there was an

1 unpaved option where you would basically take the slope
2 of the land and you'd say it was unpaved because it's
3 forest and it would give you a flow rate. They don't do
4 that now. Now they have a more complicated chart and
5 like it tells you exactly which land it is. Is it a
6 forest, is it grass, is it farm field. And based on the
7 slope they will give you a specific flow rate.

8 Q. If I can ask you one question. So it's not a
9 generalized unpaved area flow rate. There's a specific
10 flow rate based on the slope and the specific type of
11 topography?

12 A. Yes.

13 Q. Okay. Thank you.

14 A. Yes.

15 All right. So what I did was I went back and I
16 went to the manual and I decided to recalculate the
17 shallow concentrated time. Their shallow concentrated
18 time for this area was 7.2 minutes. I went back and I
19 used the charts and I said, all right, this is a
20 forested area with heavy litter, it's got the same
21 slope, 5.4 percent, and using the chart that says it's
22 got a velocity of 0.55 feet per second. And you divide
23 1,625 feet by 0.55 feet per second, you get 2,954
24 seconds, or 49 minutes. Now, what they're saying is
25 that it's 7 minutes, but based on the new method it's

1 taking 49 minutes. Which means it's about seven times
2 longer than what they're saying.

3 Now, I did this again for POA-2 -- sorry. Let me
4 take a step back.

5 There's this drainage area and then there's
6 another drainage area over here. You can tell by the
7 distinction of the two different blue lines which is
8 your time of concentration. We also did it for POA-2
9 using the shallow concentrated flow.

10 Q. And that's on the right side of the chart?

11 A. That's on the right side of the chart. Of the
12 plan.

13 And so it's, they have 564 linear feet at unpaved
14 9.2 -- 9.2 percent slope. According to their model and
15 their calculation that takes 1.9 minutes. Again, I went
16 back to the chart and the manual, I recalculated that
17 velocity for a heavily forested area, add 9.2 percent
18 slope and what I got was 12 and a half minutes. Again,
19 that's about a seven fold increase in time of
20 concentration.

21 All right. Now, you're probably wondering why
22 time of concentration is different. Now, what does --
23 how does that impact the design. The shorter the time
24 of concentration typically the higher the peak flow rate
25 you have. The water is traveling a certain amount of

1 time, so the longer it is, the lower your peak flow
2 rates are. Now, it's really important to establish the
3 correct peak flow rates of the existing conditions,
4 because that's going to set the benchmark for what your
5 designs going to be. Because the DEP will require you
6 to reduce your runoff. Your peak flow rate from your
7 design -- sorry. DEP is going to require two year peak,
8 flow runoff rate is going to be 50 percent less than
9 what is existing. For the 10-year storm it's going to
10 be 25 percent less. For the 100-year storm it's going
11 to have to be -- 10-year storm is 25 percent less.
12 100-year storm is 20 percent less. So now, thing about
13 peak flow rate it's easier to meet those reductions the
14 higher your rates are, because it's just more water.
15 You don't have to move much water, you don't have to
16 have a big basin. I always hope, if you do the math
17 right, the bigger the existing flow, it makes my life
18 easier. But see here because they're miscalculating
19 we're already getting miscalculation peak flows in
20 existing conditions. So we're risking not reducing the
21 flow as much as we should be.

22 Q. And what does that translate to in terms of
23 controlled outcome?

24 A. It means more water is going to come off the site
25 than it does and you can risk flooding further

1 downstream. Because now the site isn't holding back
2 water. It could actually be generating more runoff. So
3 the issue with flooding downstream, now we're
4 exacerbating that problem. If you develop this plan and
5 now your producing even more runoff than less. The
6 point of the regulation to reducing peak flow is that it
7 should not impact further downstream. We don't want to
8 -- in order to develop buildings you have to develop
9 land sometimes, but you don't have to flood downstream
10 areas.

11 I'm going to be getting a little technical here,
12 I just kind of want to use an analogy here to kind of
13 make it simpler. Suppose -- I'm a basketball fan,
14 suppose I saw someone dunk a basketball and say, yeah, I
15 can dunk basketballs, then when you kind of went closer
16 to the net and brought the tape measure to it you're
17 like, wait a minute, this is an 8 foot tall net,
18 basketball nets are 10 feet tall. And that's what's
19 going to happen here. You're artificially shortening
20 the time of concentration to meet these requirements,
21 so.

22 MR. KLEIN: Can I ask a question.

23 A. I want to go a little further on --

24 MR. KLEIN: One quick question. What year
25 did that change? From using that general unpaved to --

1 THE WITNESS: I don't know off the top of my
2 head. I can get it for you. I don't know off the top
3 of my head.

4 MR. KLEIN: Do you know if, when they did
5 the calculation that was correct at the time or you're
6 sure it wasn't?

7 THE WITNESS: No, I'm sure it wasn't.

8 MR. KLEIN: Okay.

9 MR. AFRAN: Mr. Chairman, I hate to burden
10 to board, could I ask for a two-minute break.

11 CHAIRMAN BAGOFF: You got it. Two-minute
12 break.

13 (Whereupon, a short recess is taken.)

14 CHAIRMAN BAGOFF: Back on the record.

15 Mr. Afran, Mr. Walsh.

16 MR. AFRAN: Thank you, Mr. Chairman. I
17 appreciate the break and we will continue with Mr.
18 Walsh.

19 A. All right. So we just finished talking about how
20 the time of concentration was used with the current
21 method. It's longer, which means the flow rates should
22 be lower than originally calculated in the applicants
23 submission.

24 I want to point something out with POA-2 here.
25 You can see the blue line here, this is where you show

1 the flow path of POA-1. This is a path that goes from
2 top of the drainage area down to the bottom.

3 Q. You're tracing a line that's parallel to those
4 red arrows, is that correct?

5 A. Yes, parallel to the red arrows.

6 You'll see there, that path total is about 671
7 feet long. What's unusual here is you compare it to the
8 other model of the drainage area, the left POA-1, the
9 blue line goes all the way to the discharge point, which
10 is what it's supposed to do. But for some reason they
11 stopped it short, it stops here, but the drainage -- the
12 discharge point is here. The time of concentration is
13 supposed to measure the entire flow event. This water
14 should keep going down here, go around, keep going. At
15 a minimum it's 700 feet short. So there's 700 feet of
16 flow, this isn't accounting for the time of
17 concentration calculation. And, again, this is just
18 another example of how like a basketball rim gets
19 artificially shortened, because now it's traveling less
20 distance than it really is. So again, time of
21 concentration will be, will be shorter. The peak flows
22 will be higher and it will be easier --

23 MR. AFRAN: For the record, the battery was
24 running low on Mr. Walsh's computer and he's about to
25 charge it.

1 A. All right. Sorry about that.

2 So once again, this is just another example how
3 the time of concentration calculation, it's not even
4 complete here. They use their own method and not using
5 equal distance, so it just can't be trusted.

6 Q. So let me ask one question. Accepting what you
7 just said, what does this translate into in terms of
8 practical outcomes that the board should be concerned
9 about?

10 A. So to demonstrate that what I did was, we used
11 the information that was available from the applicants
12 submission. We recalculated the existing conditions
13 models using the HydroCAD, which is the model they used,
14 to develop new peak flow runoff rates, and compare them
15 to what they had in the report to see how big a
16 difference is, because this is their own methods. It's
17 less than half the distance. We were concerned what the
18 impacts of that's going to be.

19 I got to go through my notes to make sure I get
20 the numbers correct.

21 So the applicant's submission shows that time of
22 concentration is 16.8 minutes. Our calculation is
23 closer to 60, at about 60.8 minutes. Four times longer
24 more time during that time period.

25 Now, for example, two-year storm we calculated

1 that the peak flow runoff rate was 7.52, I'm going to go
2 -- one second, I'm going to go to the report the
3 applicant submitted.

4 Q. What was that figure you just said?

5 A. 7.52.

6 All right. We're looking at Page 11 of the
7 applicants stormwater drainage report, it summarizes the
8 discharge rates they calculate for the proposed and
9 existing conditions and I just want to compare them to
10 our findings.

11 So the existing, the two-year storm they have the
12 existing flow rate of 17.5. Now, we calculated it as
13 7.52, which is 10.2 feet per second more than what we
14 have. So, again, this demonstrates how much higher it
15 is.

16 Now, if you're looking at this same table, it's
17 stormwater, that means the storm size. This EX is
18 existing. PER is permitted. So remember, I discussed
19 the two-year storm, you have to reduce peak flow by 50
20 percent. And then for the ten-year storm you have to
21 reduce it by 25 percent. 100-year storm you have to
22 reduce it by 20 percent, that's what's permitted. It's
23 taking the existing flow they calculated and shows what
24 they're allowed to permit.

25 Q. And this is shown from the applicants Page 11?

1 A. This is applicants Page 11, yes.

2 All right. Now, the T, the total, this is the
3 last column. It totals all the other flows in this to
4 give you the total flows. This is the target flow they
5 need to meet. So they show the peak flow rate for a
6 two-year storm is 7.24. Now, they meet it under their
7 terms but if you take, remember we calculated the
8 existing two-year storm as 7.5. You have to have that,
9 which is about 3.76. So right now their peak flow is
10 twice what it should be. So once again, they need to go
11 back, look at their basins, look at their models, make
12 everything bigger to hold more water back because
13 they're discharging too much water right now. And I want
14 to point out that on top -- this is on top of some of
15 the other things we found where some of the basins are
16 getting impacted by mounding, they're not going to hold
17 as much and they're also impacted by the seasonal high
18 water table. So we already know from earlier
19 discussions that these peak, the peak flow rates that
20 they're giving are artificially low and now we know
21 that, you know, their bar is too high. Their bar needs
22 to be lower. The sites going to generate more runoff
23 than we think it is.

24 So I also want to go through the 100-year storm
25 as well for one more point.

1 So their peak flow runoff rate for the existing
2 condition is 83.4. We calculated it at 37.6. The point
3 I'm trying to point out here is for the 100-year storm
4 what they're predicting their flow rate will be is
5 38.99. That's what their, after they build the entire
6 development that's going to come out.

7 Q. That's what they said?

8 A. That's what they said. That's higher than what
9 we're calculating right now. So that means in the
10 100-year storm this site's going to generate more runoff
11 than is does now today, which definitely exacerbates any
12 flooding problem they're having downstream. Because
13 existing conditions based on our measurements are 37.7
14 and they're at 38.99. I know these are a lot of
15 numbers, I do appreciate your patience with it all.

16 All right. I'm going to go back to one thing we
17 want to bring up about POA-2. We're still in the
18 stormwater drainage report that the applicant provided,
19 this is DA-2. So POA-2 is right here. This is the
20 final point of analysis. It's the point where all the
21 water leaves the site. It's the point of analysis for
22 the stormwater analysis to make sure you're not
23 discharging more water. What's strange about this is
24 that that's not where all the water goes. The water has
25 two discharge locations. It comes from basin 2 and

1 discharges at Kuzik Street and it also comes from basin
2 7 and it goes to Warner Street. But for some reason
3 this report treats them as two -- as not two distinct
4 locations but as one. They're simply combined. But
5 it's ignoring the flow from Kuzik, what the flow from
6 Kuzik would be. What you're supposed to do is you're
7 supposed to analyze both points so you don't have a
8 situation where you're discharging more water coming
9 into the one stream as opposed to other. For example,
10 we don't really know how the flow is diverted based on
11 the land development.

12 Now, the drainage area that normally goes to
13 Kuzik is much larger and they need to have to design to
14 take that into effect or is it larger over here. You
15 lose that in the detail.

16 I'm going to scroll to DA-1 again.

17 Q. Is it your testimony that we have a single figure
18 of discharge from the detention basin as for both
19 instead of separate figures for each?

20 A. Yes, the model treats those discharges as
21 combined when they don't combine, they're two distinct
22 flow rates. I would imagine what should happen is this
23 larger drainage area should be split into two different
24 drainage areas so these individual points can be
25 analyzed individually. So they can be certain that the

1 flow at Kuzik and at Warner are not increased.

2 All right. I have just two more points.

3 I would like to talk about the inland flood
4 regulation rules that DEP uses, and now I understand
5 that this project was grandfathered and wasn't, it
6 wasn't held to the standards of the new inland flooding
7 rules and those who are unfamiliar, inland flood rules
8 are basically meant to protect the residents of New
9 Jersey from increasing storms. DEP has observed, as has
10 many other people, that storms are being more intense
11 and larger over time. So what they did is they updated
12 the size of the storms from two to ten or 100 year, but
13 then also instituted another evaluation tool. They have
14 the present storm flow rates, storm sizes, but then they
15 have future conditions, which is even larger. A
16 100-year storm in the present condition is about
17 8-inches. But in future condition it's 11 inches. It's
18 a lot more water.

19 MR. PLOCKER: I'm going to object very
20 quickly, Mr. Chairman. Part of the application of the
21 stormwater rules, the witness is reciting to the
22 requirements and the rules the he recognized, we were
23 grandfathered in. It is the DEP's own regulation which
24 allowed us to be grandfathered in because the
25 application was filed on or before a certain date and I

1 wanted to state that for the record.

2 CHAIRMAN BAGOFF: Thank you.

3 MR. AFRAN: Our position is that the DEP
4 made a judgment on its view that the older rules applied
5 in this case. We have appealed that and that is pending
6 in the Appellate Division. It's not briefed and the
7 appeal was just recently filed challenging that
8 decision, so we don't have a decision from the Court yet
9 as to whether DEP is correct, as Mr. Plocker suggests,
10 or whether it is incorrect, as we suggest. So the issue
11 will be litigated. As Mr. Walsh said earlier, the board
12 does have an independent duty to understand and assess
13 and he's offering testimony to address that. And in
14 addition this is responsive to testimony the applicant
15 offered on its own initiative on these very issues. So
16 all though I respect Mr. Plocker's view, we obviously
17 have a different legal view of the condition.

18 CHAIRMAN BAGOFF: Thank you.

19 Mr. Walsh.

20 A. I want to speak to the fact that what they -- I
21 understand they were grandfathered in and that's under
22 appeal, but you could still run these storms, you could
23 still take your model, it's not a giant effort to change
24 a few numbers and at least for the sake of the town and
25 the community you can give an idea like hey, how

1 resilient is your design in case of these storms. You
2 don't have to meet the reduction requirements but you
3 could show them what that would mean, give them some
4 peace of mind, which I don't think would be a negative.

5 I have one last point I want to bring up.

6 So we're looking at the construction plans
7 submitted by the applicant, let me get the sheet number.
8 I did not change this at all, just looking at the plan.
9 Looking at SP-16.

10 This is porous pavement area number 9 on the
11 plans. I wanted to point out a concern I have here. If
12 everyone can see where my cursor is going, you see the
13 line that has the S running through it. So that is a
14 sanitary sewer line that is running through the
15 infiltration basin, and I'm going to go to the profile
16 view just to confirm it. Again, this is the 8-inch S,
17 this is the sanitary line, this is the in infiltration
18 stormwater storage basin. They have a sanitary line
19 running through it. I can't find anything explicit in
20 the stormwater BMP manual that prevents you from doing
21 this, but it seems like generally a very bad idea to run
22 a sanitary line through a storage system that's going to
23 fill up with water.

24 Now, in -- there are other rules keeping about
25 keeping stormwater infrastructure apart from sanitary

1 lines, the risk is obviously the sanitary lines carry
2 human waste, you don't want a leaking sanitary system.
3 These pipes get old sometimes, they leak into the
4 stormwater pipe and then suddenly you're discharging
5 bits of raw human waste into your local water body.
6 That's not very good. In fact typically you need to
7 keep stormwater pipes about ten horizontal feet away
8 from a sanitary line or one vertical foot away. There
9 are conditions where there are site constraints so you
10 can't do that, so you have to encase the sanitary line
11 in concrete to protect it from leaking and impacting the
12 sanitary line.

13 I think this line should be moved. I mean, now,
14 again, I said you can't find a rule against it, but to
15 give you a better idea, another way to look at it is,
16 what I couldn't do is I couldn't take, like if I have a
17 stormwater pipe 64 inches in diameter, a massive
18 stormwater pipe, it could happen. I couldn't run a
19 sanitary line through it, that would not be allowed and
20 I don't think you should be allowed -- they shouldn't be
21 running a sanitary line through this. So this porous
22 pavement section should be eliminated and they should
23 find another way to store the water or they should move
24 the sanitary line out from underneath the roadway.

25 Now, the consequence of that, I think it would

49 1 impact their flood -- I'm sorry. The consequence of 2 moving the sanitary line out of the roadway into the 3 grassed area, the vegetated area, I think there would be 4 impacts on the flood hazard permit and their wetlands 5 permit. They might need additional permits to do that, 6 but just generally good practice, I think that line 7 should be moved out of the infiltration basin. 8 That is all my thoughts, but I want to summarize 9 what I went through with you today was things that we 10 found in our technical review of the report where we 11 were concerned that the design is not compliant with the 12 New Jersey requirements design standards and that lack 13 of compliance you have two problems, you're not going to 14 have proper ground water recharge because the waters 15 going to be held up and the water, instead of being 16 infiltrated as I explained during the mounding exercise, 17 it's going to go down the pipes. It's going to go out. 18 And, again, we're going to have much higher -- we're 19 going to have higher peak flows than what we're 20 anticipating and that's, it's kind of pairing that with 21 the fact that the existing peak flow rates weren't 22 calculated correctly and they were elevated that we're 23 really risking having a flooding -- this site causing 24 additional flooding downstream than it should. So it 25 should have reduced flows, I'm worried this sites going	51 1 basins, yeah. So, which impact the roadway layout, 2 impact permitting, impact the site layout in general. 3 MAYOR McCARTNEY: I understand the issues 4 being litigated but it seems that, I appreciate what you 5 said about the Township, you don't want to be 6 responsible as well, understood. Thank you. 7 CHAIRMAN BAGOFF: Mr. Klein. 8 MR. KLEIN: So you're saying that they don't 9 have enough test pits to determine what's going on 10 underneath where the basins are going? 11 THE WITNESS: For some of the basins. 12 MR. KLEIN: No, to some basins. Some spots 13 you showed they weren't really underneath -- 14 THE WITNESS: Well, I think it's off a 15 little. There is flexibility, they don't have to be 16 right in the middle. There's flexibility built in there 17 because sometimes when designing a site you don't always 18 know exactly where you're going to be. 19 MR. KLEIN: Right. 20 THE WITNESS: It goes the same way. Just 21 because it's on the site 20 feet away it's still going 22 to have significance. 23 MR. KLEIN: What's the seasonal high water 24 table? 25 THE WITNESS: So it's called seasonal high
50 1 to generate more runoff than it does now. 2 Q. Does that conclude your presentation, Mr. Walsh? 3 A. That's all my notes, so thank you. I won't take 4 up anymore of your time. I appreciate it. 5 CHAIRMAN BAGOFF: Thank you, Mr. Walsh. 6 I call on the board. Mayor McCartney, do you 7 have any questions? 8 Mr. Plocker, do you -- 9 MR. PLOCKER: No, the board can go ahead. 10 CHAIRMAN BAGOFF: Mayor McCartney, do you 11 have any questions? 12 MAYOR McCARTNEY: Mr. Walsh, thank you very 13 much for you testimony. It was somewhat technical. 14 THE WITNESS: I tried -- 15 MAYOR McCARTNEY: No, the implications of 16 what you're saying can't be ignored. 17 Anyway, your testimony brings me back to 18 something you originally said about recommendations of 19 you have to go deeper or go wider, that is my take away 20 from all of this. And/or, and/or to add additional 21 basins -- 22 THE WITNESS: Yes. 23 MAYOR McCARTNEY: -- to the proposed plan. 24 THE WITNESS: Deeper if you have the 25 distance but wider when you don't. Or additional	52 1 water table because it fluctuates. 2 MR. KLEIN: Right, not supposed to take 3 samples in July or August or -- 4 THE WITNESS: No. So you can measure 5 seasonal high basically whenever you want, but that's 6 usually when they're mottling because mottling, with a 7 T -- 8 MR. KLEIN: With double T. 9 THE WITNESS: The mottling, that's always 10 there, because what's going to happen, you know it's 11 sustained. Now, what you can do is measure it from, if 12 you want to try to use the water elevation, you can 13 measure it from January to April, which in the reports 14 they do, so. But if the mottling is higher you have to 15 use the mottling. 16 MR. KLEIN: And DEP wants you to use the 17 mottling? 18 THE WITNESS: They want you to use the 19 mottling, yeah. 20 MR. KLEIN: Did the DEP comment on that? 21 THE WITNESS: Not that I can tell. 22 MR. KLEIN: In your experience have you seen 23 DEP ask for mottling? 24 THE WITNESS: Yes, I have. I've seen DEP 25 ask for it.

53 1 MR. KLEIN: So I guess it depends on who's 2 reviewing it? 3 THE WITNESS: Depends who's reviewing it. A 4 lot of times the stormwater profiles also show it. 5 MR. KLEIN: I understand. You pull out a 6 sive of soil and you're able to tell, right? Is that 7 what you're talking about. 8 THE WITNESS: Yeah. Can I show -- 9 MR. KLEIN: Sure. 10 THE WITNESS: This is a presentation we gave 11 for a different project but I mean, the language is 12 different, where usually don't ask for the mottling 13 because you see where it says, for example, you have 14 common medium, common gray. Gray is the color of the 15 mottling that happens. It's the gray in the soil. 16 MR. KLEIN: If you have water where the 17 water table is gray? 18 THE WITNESS: Yeah. There would be 19 spotting. 20 MR. KLEIN: Okay. 21 THE WITNESS: So in my experience they don't 22 usually ask for it because a lot of times you fill it 23 out anyway. The absence of it is when you're -- this is 24 an example of a soil boring log, so you would explain 25 where it is to begin with.	55 1 were not -- the flow of water, that wider area. 2 THE WITNESS: You mean how the flows of 3 wetlands would be -- 4 COUNCIL PERSON SCARPA: Impacted by where it 5 flows down through the wetlands. 6 THE WITNESS: It's reduced. 7 COUNCIL PERSON SCARPA: Or more would be 8 affected, so how would that -- other wetlands would be 9 affected, right? 10 THE WITNESS: Yeah. 11 COUNCIL PERSON SCARPA: Because the flow of 12 water? 13 THE WITNESS: It would get less water. 14 COUNCIL PERSON SCARPA: So there's less 15 water? 16 MR. AFRAN: We have another witness, Mr. 17 Sean being an engineer -- Mr. Walsh being an engineer 18 gave you the physical description. Mark Gallagher is 19 our wetlands expert who will testify on another night 20 and he will go into more detail on that. We offered Mr. 21 Walsh's testimony just to show the statistical analysis. 22 COUNCIL PERSON SCARPA: Thank you. 23 And I'm concerned about the responsibility 24 of the municipality to understand this and really 25 quantify it. I mean, if you were sitting in our chair
54 1 MR. KLEIN: And their soil borings didn't 2 have this? 3 THE WITNESS: There's no mention of it. 4 MR. KLEIN: Okay. 5 MR. AFRAN: Do we need to mark this last 6 document as an exhibit? I'm asking Ms. McGovern for 7 your opinion. 8 MS. MCGOVERN: He did refer to it, so just 9 that one page. What are we calling that? Sample of 10 Mottling, is that what it is? 11 MR. AFRAN: From another project. 12 THE WITNESS: It's a sample test pit log. 13 MR. AFRAN: It says that at the bottom. 14 MR. KLEIN: I think that's it for me. 15 MS. MCGOVERN: We're up to 10. 16 MR. AFRAN: I think we're up to 11. The red 17 arrow was 10. 18 CHAIRMAN BAGOFF: Council Person Scarpa. 19 COUNCIL PERSON SCARPA: I'm trying to get a 20 little more understanding, I'm not sure if you 21 summarized it. I'm trying to get a little more 22 understanding of the wetlands. I'm unsure if you 23 summarized it or just quantified it, but how will the 24 flow of water be impacted by the disturbance of the 25 wetlands? You showed, you know, how other wetlands that	56 1 with Mayor McCartney, what would you be recommending our 2 Township do to get a better understanding of the real 3 impact of this? 4 THE WITNESS: I would recommend additional 5 soil testing. I would recommend they split that POA-2 6 into two drainage areas. They need to recalculate the 7 existing time of concentration calculation. Basically 8 everything I called out. A lot of things need to be 9 reevaluated to make sure it's not going to cause a 10 flooding problem. 11 COUNCIL PERSON SCARPA: All right. Great. 12 CHAIRMAN BAGOFF: Vice Chairman Guarino. 13 VICE CHAIRMAN GUARINO: Thank you, Mr. 14 Chairman. 15 Thank you for being here tonight and for 16 your presentation. I have a number of questions. 17 One, what was the time period that your 18 sampling was done? 19 THE WITNESS: Their sampling, it was between 20 April and -- January and April. 21 VICE CHAIRMAN GUARINO: Okay. 22 Can you tell me sir, what were the 23 conditions prior to and during the testing core samples, 24 was it rainy, snowing? 25 THE WITNESS: I don't know. I didn't take

57 1 these core samples. 2 MR. AFRAN: Let me just clarify. Mr. Walsh 3 is referring to the applicants work. So he wasn't 4 personally there to observe the conditions. 5 VICE CHAIRMAN GUARINO: Okay. Thank you. 6 My other question is, has anyone or 7 yourself, did anybody test the solubility of the 8 wetlands as they currently exist now before than based 9 upon your calculations when and if this project goes 10 forward? Was there a sampling of how the current 11 conditions of the wetlands are now. 12 THE WITNESS: I think that's a no. 13 VICE CHAIRMAN GUARINO: Are they very 14 soluble, are they maintaining, you know, spec specific 15 volume of water, growth, food, you know? 16 MR. AFRAN: I think for Mr. Walsh's benefit, 17 your question is whether or not any testing of that 18 nature is in the record. Presumably from the applicant 19 is what I assume your question is. 20 THE WITNESS: No, there's no testing that I 21 know of. 22 VICE CHAIRMAN GUARINO. Okay. Thank you 23 very much. 24 Thank you, Mr. Chairman. 25 CHAIRMAN BAGOFF: Mr. Alper.	59 1 different and if it's correct to use the more recently 2 gathered data is there a reasonable requirement what 3 they should use instead, etc.? 4 THE WITNESS: Well, I don't think there's an 5 issue with the recent or what's more recent would give 6 more information. The problem is -- the difference is 7 location. I'm going to use, this is porous pavement 8 number 6 again, just as an example. So here's number 43 9 and here's 42. Now, one difference is, like the 10 existing grade elevation here is 610, but the existing 11 grade elevation here is 605. So you're already, this is 12 a 15 foot different elevation. So that's where you 13 start seeing the complication of it. That's why, again, 14 the DEP, and this is a pretty large basin, it's a pretty 15 large parking lot of porous pavement, that's why it's 16 using more test pits because it's, especially when you 17 have large variations in grade, the seasonal high water 18 table can change. Now, that's why Councilwoman asked 19 what I recommend. I recommend some more test pits to 20 get an understanding of the story of what's going on 21 here. I'm not saying -- I don't want my testimony 22 construed that everywhere the seasonal high water table 23 is, you know, at 608, obviously the ground drops, but we 24 need to understand how it changes. So we do, I mean, 25 maybe having this parking lot is not going to work but
58 1 MR. ALPER: Sure. Taking a step back. Is 2 what you're showing us tonight only relevant to the DEP 3 approval and whether or not it should be granted or some 4 or all of the issues that you're raising specifically 5 also are important to the Planning Board because it 6 impacts the drawings, the reports that are part of the 7 application that's before us? 8 THE WITNESS: This implicitly impacts the 9 Planning Board. The Planning Board -- the local 10 ordinance also has the same peak flow reductions that 11 are presently in the New Jersey state regulations, so 12 elevated peak flow runoff rates separation -- for 13 example, the separation between the seasonal high water 14 table in the bottom basin, that's in the rules too. The 15 way you're supposed to calculate the runoff that's in 16 your rules too. New Jersey kind of made every state, 17 every municipality update their local ordinance to meet 18 -- your ordinance has to meet the minimum, which is the 19 New Jersey DEP state regulation. Now, there are some 20 cities that have stricter regulations, but yours has to 21 meet the minimum. So it impacts on both levels. 22 MR. ALPER: Thank you. 23 On the seasonal high water table, question, 24 the difference between the 2021 numbers and the 2024 25 numbers, can you explain a little about why they're	60 1 it does work on this half of the parking lot because 2 they took the test pits on this side which is much 3 higher here. You understand what I mean? 4 MR. ALPER: Okay. 5 In the cases where you suggest that the 6 applicant has done the math wrong, not saying that's the 7 case or not the case, that's what you're claiming. If 8 you're correct, is the applicant now noncompliant with 9 the new DEP required numbers or with the old numbers in 10 the cases where the math is different, or is it a 11 mixture? 12 THE WITNESS: They would not be compliant 13 with the rules they're being held to. Not the inland 14 rules, the rules they're being held to. 15 MR. ALPER: The ones that were in place when 16 they applied? 17 THE WITNESS: Yeah, when they applied. 18 MR. ALPER: That's all I have. Thank you. 19 CHAIRMAN BAGOFF: Mr. Wilkes. 20 MR. WILKES: In regards to mottling, you're 21 saying -- you didn't take any tests yourself, you're 22 reading everything from the applicants, right? 23 THE WITNESS: I'm reading what they did. I 24 didn't go out there at all. 25 MR. WILKES: All information came from

61 1 basically samples they had? 2 THE WITNESS: Absolutely. 3 MR. WILKES: Now, a project this large, have 4 you ever seen the situation where mottling didn't exist 5 before or is it just that uncommon? I'll take out the 6 didn't exist before. 7 THE WITNESS: I think it's very, very 8 uncommon. In some places, I'll give another example. 9 Another way you can look at this historically, if you 10 want to, you can go to, I can't remember the name now, 11 go to the website they'll give you soil maps and it'll 12 give you a rough idea of where the seasonal high water 13 might be. DEP will let you do that. But people are 14 conservative and people don't want to do that. So 15 sometimes you would see mottling if you have seasonal 16 high because sometimes seasonal high can be like 20 feet 17 below grade, you know. What I think is unusual here is 18 that when, in every instance where they found seasonal 19 high there was no note of mottling and sometimes 20 seasonal high was two feet below grade, you would see 21 something there. So it's absence of it's reporting I'm 22 just wondering about it. 23 MR. WILKES: I'm wondering why DEP would 24 have let it go then? 25 THE WITNESS: I have that same question.	63 1 slopes. I wanted to see what they did. 2 MR. CARDOZA: That's helpful. 3 That's my only question. The board members 4 asked my other questions. Thank you so much. 5 CHAIRMAN BAGOFF: Ms. Kapferer. 6 MS. KAPFERER: Thank you, Mr. Chairman. 7 One question, I'm not sure if this is for 8 you Mr. Walsh or us. If the Township is looking at 9 everything, you know, in comparison against our own 10 ordinance, is it like to say that we're looking at the 11 version of the stormwater ordinance that's prior to. I 12 think we just adopted a new version in November, right? 13 So it's the, is it right to say that it's the version 14 prior to the one that was just adopted? 15 MS. MCGOVERN: You have to apply -- DEP 16 rules that apply here preempt whatever the town does. 17 So if our rules now are stricter, like the new DEP 18 rules, but the DEP already ruled that the old rules 19 apply, I think our old ordinance also, at the time of 20 the application, will come into play. 21 MS. KAPFERER: Okay. 22 MS. MCGOVERN: But there are other things 23 being described as well. 24 MS. KAPFERER: Okay. 25 MR. AFRAN: Ms. McGovern, I'm sorry, I won't
62 1 MR. WILKES: But this is -- you're not 2 saying it's uncommon or it's common? 3 THE WITNESS: I think it is very uncommon to 4 see that. I can't speak for what the DEP's thinking is 5 about it unfortunately, I'd love to. 6 MR. WILKES: I wouldn't take that as the 7 fault of the applicant necessarily. It's kind of what's 8 the explanation behind DEP's reasoning behind it, but I 9 digress. 10 No more questions. 11 CHAIRMAN BAGOFF: Mr. Cardoza. 12 MR. CARDOZA: Yes, thank you Mr. Chairman. 13 Mr. Walsh, just building on Mr. Alpers question 14 on experience calculations between yourself and the 15 applicant, the numbers you presented, are they 16 conservative estimates? 17 THE WITNESS: I'm using mostly their 18 information, so I don't think -- I'm trying to be as 19 conservative as they are. I'm not trying to like jack 20 up the stats in the other way. I'm trying to use their 21 slopes, their areas, I'm just trying to see the way they 22 analyzed it and just use the most updated method. I was 23 trying to be as unbiased as possible. So like I didn't 24 remeasure slopes. They told me 5.4, I'm going to say 25 it's 5.4. I didn't want to be argumentative about	64 1 address the point but say we reserve our view on the 2 legal issue. 3 MS. MCGOVERN: Understood. 4 MS. KAPFERER: And then I understood you to 5 say that their testing was done at least two different 6 times, was it the same consultant that did the testing? 7 THE WITNESS: It was the same consultant. 8 MS. KAPFERER: Okay. 9 THE WITNESS: Soil Consultants Engineering. 10 MS. KAPFERER: Okay. Thank you. 11 And then one last question. When you were 12 working through your calculations, did you do a 13 comparison on your own at Warner Road? 14 THE WITNESS: So I, to go back to the 15 previous councilman's question. I didn't want to delve 16 to far into like redesigning or reevaluating the site. 17 I wanted to use the numbers that they had. I didn't 18 want to get into that argument. I was trying to 19 evaluate their design. 20 MS. KAPFERER: Okay. Understood. 21 That's it for me. 22 CHAIRMAN BAGOFF: Thank you. 23 Mr. Rizzo. 24 MR. RIZZO: No, I don't have any questions. 25 CHAIRMAN BAGOFF: Mr. Martini.

65 1 MR. MARTINI: No questions, Mr. Chairman. 2 CHAIRMAN BAGOFF: Mr. Plocker. 3 MR. PLOCKER: I have one question. 4 I want to confirm, is it your testimony that 5 you reviewed every single page that my clients submitted 6 to the DEP in support of the permit applications? 7 THE WITNESS: I can't say that I reviewed 8 every single page because there's a 900 page stormwater 9 report and a lot of it was modeling results that I 10 didn't felt I needed to look at. I felt what I looked 11 at was what I felt was important, but I tried to review 12 everything, every single thing they submitted. 13 MR. PLOCKER: But not every single page of 14 the stormwater report? 15 THE WITNESS: No, I definitely did not read 16 every single page. Couple hundred pages of modeling 17 results that I did not. 18 MR. AFRAN: I just want to clarify, did you 19 mean modeling with a T or D? 20 THE WITNESS: I meant D. 21 MR. AFRAN: Thank you. 22 CHAIRMAN BAGOFF: Mr. Klein, go ahead. 23 MR. KLEIN: So Mr. Rizzo, I've got to ask 24 you, what do you think of Mr. Walsh's testimony? 25 MR. RIZZO: Well, certainly it's a lot to	67 1 April, it does move. 2 MR. KLEIN: Okay. 3 MR. RIZZO: You could and you could not, so 4 it's really the person who dug the test, that's the only 5 person that knows that answer. 6 MR. KLEIN: All right. 7 THE WITNESS: That's why I said, I think 8 they should provide some testimony just for 9 clarification, you know. 10 MR. KLEIN: Because the mottling may show 11 that the seasonal high water tables correct or accurate? 12 THE WITNESS: It would show -- 13 MR. KLEIN: It would show -- it would be 14 more accurate than the day they were there? 15 THE WITNESS: Yes. 16 MR. KLEIN: Okay. And -- okay. And that's 17 gone, because the samples are destroyed? 18 THE WITNESS: Well, no you take -- 19 MR. KLEIN: You can do more. 20 THE WITNESS: It's still there. 21 MR. KLEIN: Right. Do you have to dig new 22 samples? 23 THE WITNESS: You have to probably dig like 24 ten feet to the left. 25 MR. KLEIN: Right. Okay.
66 1 unpack there and obviously I need to review it and come 2 up with a number of different comments. 3 As far as the soil tests, my opinion, if 4 they were done in January to April it's probably the wet 5 season and that's probably why mottling wasn't 6 discovered. I don't want to speak for the person who 7 did it obviously, that's my assumption. 8 MR. KLEIN: You're saying the water itself 9 was a level that they were confident that -- 10 MR. RIZZO: If they were done between 11 January and April it's the wet season. 12 MR. KLEIN: Right. 13 MR. RIZZO: Seasonal high may have been the 14 highest it could go to, so. 15 MR. KLEIN: Okay. So now let me pause you 16 then. 17 So Mr. Walsh, I'm sorry, I don't mean to go 18 back and forth. So if they did the testing January to 19 April, it's the wet season, why do they need to do the 20 mottling, with double T? 21 THE WITNESS: Yeah, he's correct, it's done 22 during the wet season which was the correct time and the 23 mottling will show the genuine height, even if it's the 24 wet season during that period of time where the seasonal 25 high is dry. The water isn't consistent from January to	68 1 THE WITNESS: That's the value, it's always 2 there. 3 MR. RIZZO: As far as location of tests, 4 that's a lot of gray area there. I think that someone 5 could use all the tests within the basin, that's what 6 we're primarily going to look at. Sure, I agree that as 7 that natural grade elevation changes their tests could 8 change also. It's tough to say, you definitely need a 9 test pit outside the basin though. 10 MR. KLEIN: Quantity wise, he said he was 11 short one in one, too in the other. You think they have 12 enough? 13 MR. RIZZO: That I'm not positive now, I 14 took notes and Mr. Hess can certainly verify it. 15 As far as like the over excavation as 16 porous, I guess of porous pavement basins, I think 17 that's natural practice where you don't have good soils, 18 you certainly want to make sure you're infiltrating. So 19 it's good practice to over excavate and put back better 20 soils. 21 MR. KLEIN: And what do you think about two 22 feet of 40 percent voids versus, I assume they did two 23 feet 100 percent voids? 24 MR. RIZZO: Yeah. Again, I took notes, 25 we'll definitely verify it again. That's a very

69 1 specific detail. 2 MR. KLEIN: Right. 3 MR. RIZZO: I don't want to say one way or 4 the other. 5 MR. KLEIN: At this point do you agree with 6 or disagree with Mr. Walsh, knowing what he said and 7 what you have seen so far, or is it really Mr. Hess? 8 MR. RIZZO: It's really Mr. Hess. I am not 9 sure it's going to be one grand total yes or total no. 10 I think maybe some points are probably valid but, again, 11 there's a ton of gray area of this stuff and you could 12 have ten different people review it and come up with ten 13 totally different sets of comments. As you see with the 14 DEP, you know, there's lots of things they miss in their 15 rules, so, or potentially missed. But like I mentioned, 16 we're going to take these notes back to Mr. Hess, he 17 will verify them. 18 MR. KLEIN: What do you think about the 19 sanitary sewer line going through the, under the road, 20 where that's going to be? 21 MR. RIZZO: Yeah. I agree, that's probably 22 not typical. 23 MR. KLEIN: Even if it's PVC piping which 24 doesn't leak as much as concrete. 25 MR. RIZZO: Probably be either way. You	71 1 board, but the towns engineers responsible for review 2 but it's really the applicants responsibility at the end 3 of the day to own the design that they designed and 4 signed off on. So I'd say probably the applicant, then 5 the town and DEP are equal responsible as far as review 6 goes. 7 CHAIRMAN BAGOFF: Okay. Thank you. 8 So at this time I'm going to have members of 9 the public come up, ask questions of Mr. Walsh. I want 10 to preference this by saying, you heard how the board 11 asked questions. The board did not testify. The board 12 did not tell stories. Ask a question of the information 13 provided or I will ask you to stop speaking. Questions 14 start with if, when, what, how, which, does it. But use 15 the way the board asked questions as to the way to ask 16 questions. Okay. 17 If everybody can be quiet so we can hear, 18 everybody in the room can hear the questions. 19 The person standing. 20 THE PUBLIC: Thank you very much. 21 MR. AFRAN: Mr. Chairman, I think we have 22 one microphone so I will give it to members of the 23 public who might have to give it back to Mr. Walsh. 24 CHAIRMAN BAGOFF: I'm going to limit 25 questions to three minutes. So Joe can you put three
70 1 could even have groundwater entering into the sewer 2 system. 3 MR. KLEIN: Right. 4 MR. RIZZO: So I think if there's an 5 opportunity to relocate it, it should be considered. 6 I'm not sure if there's an opportunity but it should be 7 looked at. Also I'd want to know the depth, maybe the 8 sewer system is deeper, is much deeper than the basin 9 and that's probably different. 10 MR. KLEIN: Under the road. He shows the 11 gray area, right in the gray area. 12 MR. RIZZO: It could be changed vertically, 13 it could be changed horizontally. I think it should be 14 looked at. 15 CHAIRMAN BAGOFF: Anything else, Mr. Rizzo? 16 MR. RIZZO: I have nothing else. 17 CHAIRMAN BAGOFF: If the DEP misses their 18 own regulations what's the recourse for the applicant or 19 for -- if the DEP misses it's own regulation what's the 20 recourse of the applicant or the objector? 21 MS. McGOVERN: Or this board. 22 CHAIRMAN BAGOFF: Or this board. 23 MR. RIZZO: It sounds like they've gone back 24 to the DEP and I'm not sure about stance, I don't want 25 to speak for them. I'm sure the board is -- not the	72 1 minutes on the clock. 2 We well keep it. I'm on it. 3 THE PUBLIC: I'm Victor Misarti, 4 M-I-S-A-R-T-I, and I have a question about this 5 stormwater discharge. 6 One of your site plans you showed that there 7 was, it was calculated to be one point of discharge but 8 you're saying it was actually two. So here's my 9 question. On one of the other site plans that you were 10 showing, you were showing that a lot of water was not 11 going into that system, it was going to the west, to the 12 left directly into the stream and then to the east to 13 the, right directly down that hill. Down the mountain. 14 So my question is, shouldn't that discharge be 15 calculated as well? Like why just the two pipes. 16 THE WITNESS: So they are only testing 17 disturbed areas. Basically it's simplified if you were 18 looking to include that, but what they're basically 19 doing, they're saying we're going to hold that as steady 20 and we're going to show only the disturbed area that's 21 where the change would be. So it showed a reduction and 22 those changed areas, so they're not counting those other 23 areas, there's a totally normal thing they can do. Just 24 kind of to simplify the analysis. I think you would 25 agree with me on that.

73 1 MR. MISARTI: So to follow-up on that 2 question then. On that one site plan that had, had blue 3 arrows, there were no -- yeah. There were no developed 4 areas that were just going to the stream? 5 THE WITNESS: No, those are being captured 6 and rerouted to the storm structures. They do go to the 7 wetland down here. It goes to here but no longer gets 8 distributed along here or along this upper wetland area. 9 THE PUBLIC: I'm sorry. So those blue 10 lines, none of that developed areas is -- I think I was 11 looking the other way. 12 So there were no developed areas that were 13 just running -- the blue lines didn't show any developed 14 areas? 15 THE WITNESS: No, where it's developed and 16 designed it's supposed to be there. Supposed to capture 17 and then runoff and treat the runoff and peak flow 18 runoff so it doesn't go to the public. 19 THE PUBLIC: Okay. Thank you. 20 CHAIRMAN BAGOFF: Thank you. 21 Any other members of the public have any 22 questions for Mr. Walsh. Please come up and be 23 identified. 24 THE PUBLIC: I'll try to speak more loudly. 25 Jessica Pearson, Verona.	75 1 the best management practices? 2 THE WITNESS: Chapter 5. 3 THE PUBLIC: Chapter 5. 4 THE WITNESS: Chapter 12. 5 THE PUBLIC: Chapter 12 was the test pits? 6 THE WITNESS: Yes. 7 THE PUBLIC: So that would be something that 8 would be a best management practice? 9 THE WITNESS: It's -- let me take a step 10 back. So the New Jersey DEP best management practice, 11 best management practices refer to the specific 12 stormwater term -- 13 THE PUBLIC: No, I'm talking about manuals 14 and the manuals that you follow. 15 THE WITNESS: Yeah, that manual is the BMP 16 manual, best management practice referring to like the 17 stormwater infrastructure, like the basins, those are 18 called BMP. 19 THE PUBLIC: Green infrastructure is a BMP? 20 THE WITNESS: Yeah. Yeah, right. Exactly. 21 That's implicitly listed in the structure. This is how 22 to do tests pit and locate the seasonal high water 23 table. 24 THE PUBLIC: Okay. 25 So on the test pits, would you say that or
74 1 Okay. I have questions regarding some of 2 the questions that the board asked. The sanitary sewer, 3 that's proposed or existing? 4 THE WITNESS: Proposed. 5 THE PUBLIC: That's proposed. So where does 6 it go? If don't you mind. It comes from obviously the 7 buildings en masse and -- 8 THE WITNESS: It's the sanitary sewer line 9 that's going to collect from, sanitary waste from the 10 proposed buildings. 11 THE PUBLIC: From all of the four buildings, 12 do we know? 13 THE WITNESS: I'm looking right now. 14 THE PUBLIC: Okay. 15 THE WITNESS: The stormwater is definitely 16 collecting from here. I think it is, at least it's 17 collecting -- it is going over this wetland and goes to 18 a pump station and then it gets pumped off-site. 19 THE PUBLIC: So wait it -- and it runs 20 underneath one of the basins, one of the stormwater 21 basins? 22 THE WITNESS: It runs through. 23 THE PUBLIC: Okay. 24 All right. Is that mottling testing that 25 you talked about, mottling with a T, is that found in	76 1 would it be your opinion that there weren't enough done 2 on the site? 3 THE WITNESS: It doesn't meet the minimum 4 standard based on the size and the way DEP lays it out. 5 THE PUBLIC: All right. 6 Regarding the permeable pavers or the porous 7 cement or the porous surface, do you know how many 8 square feet they have proposed on-site? 9 THE WITNESS: I have -- it's in the report, 10 I do not know that off the top of my head. 11 THE PUBLIC: Okay. 12 But even under those or in that area, you 13 were showing the parking lot a few minutes ago, you 14 showed that there was, from your perspective, there were 15 fewer than what would be compliant with DEP standard 16 test pits tested in that area to basically figure out 17 what the seasonal high water table is, yes? 18 THE WITNESS: Yeah. There wasn't enough 19 test pits there. 20 THE PUBLIC: Okay. 21 And what would happen if the pavement 22 doesn't, if the pavement didn't have the capacity to 23 infiltrate? Because I see from this that there are 24 underdrains proposed on this underneath this permeable 25 pavement?

77 1 THE WITNESS: They have stormwater -- they 2 have -- 3 THE PUBLIC: Underdrains for like overflow, 4 I guess. 5 THE WITNESS: Yeah, these are -- this is 6 collection for the, I think these are underdrains. I 7 think they got rid of the underdrains. I think this is 8 just stormwater pipes to help convey the water, but it 9 is to prevent infiltration. 10 THE PUBLIC: Is there a basin underneath, 11 any sort a basin, to capture -- 12 THE WITNESS: Yes. 13 THE PUBLIC: -- runoff under permeable 14 pavement? 15 THE WITNESS: Yes, the stone layer 16 underneath that's supposed to capture and hold the 17 runoff and there's a structure at the bottom that has 18 controlled openings that will force the water back being 19 held and slowly released. 20 THE PUBLIC: Okay. 21 So if the capacity is compromised because 22 the seasonal high water table is to high or if the 23 stormwater does not infiltrate at the proper rate, or 24 there isn't enough depth for the stormwater to 25 infiltrate, what happens to the surface of that parking	79 1 other people asking questions. 2 THE PUBLIC: I will come back up. 3 CHAIRMAN BAGOFF: Next person who would like 4 to as questions. 5 Ladies and gentlemen, could you just keep 6 quiet in the back, the court reporter can't hear and we 7 can't here sometimes because the mic is somewhat older. 8 Go right ahead. 9 THE PUBLIC: Sure. Mike McGlynn, 10 M-C-G-L-Y-N-N, and I think I'm probably the closest 11 property to the tree line our house. But anyway, my 12 question has to do with storm runoff. Probably just 13 repeating one of the board members questions about what 14 should be done, what should be done considering the new 15 report about the water runoff being a lot worse than the 16 original report? 17 THE WITNESS: Go back and use the new time of 18 concentration calculations and reevaluate the site based 19 on those newer lower rates that they have to meet, which 20 means their will be impacts to the site layout. I'm not 21 going to speak to what that is, that's their prerogative 22 how they move things around the site, but basins would 23 have to probably get bigger and wider. 24 THE PUBLIC: Okay. Thank you. 25 But, you know, I think a lot of neighbors
78 1 lot? 2 THE WITNESS: Well, the water can come back 3 up through the porous surface. It's porous, water can 4 go through both ways and then it would go to the pipes. 5 THE PUBLIC: Would it, could it rather, 6 could it actually, you know, upset it to a point where 7 it actually breaks and pops up? 8 THE WITNESS: I don't know I've ever seen 9 that happen, to be completely honest, but the upper 10 pressures not something you want to have on pavement. 11 THE PUBLIC: Right. 12 THE WITNESS: So it might not, I don't want 13 to say break the pavement, but definitely not what you 14 want. 15 THE PUBLIC: So you could have ponding. 16 What about intensively cold weather, what happens then? 17 THE WITNESS: Ice comes up first. It 18 could. 19 THE PUBLIC: So ice could do that? 20 THE WITNESS: Yes. 21 THE PUBLIC: Okay. 22 CHAIRMAN BAGOFF: Thank you very much. I 23 have to ask you, you're over four minutes. Thank you. 24 THE PUBLIC: I have a lot more questions. 25 CHAIRMAN BAGOFF: That's okay. We have	80 1 are concerned about the, about the development and I 2 think about the negative effect on our community if it 3 happens. Thank you. 4 CHAIRMAN BAGOFF: Thank you, sir. 5 Any other members of the public have 6 questions for Mr. Walsh on his testimony. Please come 7 up. 8 THE PUBLIC: Richard Meyer, I've been a West 9 Orange resident a little under 20 years. 10 I just want to get right to the chase. In 11 your opinion, based off what you described of the basins 12 and if there's overflow, I live in the community right 13 below this, could there be runoff and damage, not 14 damage, but could there be flooding, possible flooding 15 to our community, to our homes? 16 THE WITNESS: I don't know where that 17 community is, I don't know the storage capacity of your 18 system, but increasing the runoff volume of water and 19 the rate it's coming to your community, yeah, it could 20 increase flooding. 21 THE PUBLIC: That's all I wanted to hear. 22 Thank you. 23 CHAIRMAN BAGOFF: Thank you, sir. 24 THE PUBLIC: Good evening. Orin Knights. 25 CHAIRMAN BAGOFF: State your name for the

81 1 record. 2 THE PUBLIC: Orin Knights. 3 CHAIRMAN BAGOFF: Okay. Thank you. 4 THE PUBLIC: I have to ask you two 5 questions. First one I have is for the Planning Board. 6 Who -- does the DEP supercede the city or does the city 7 have jurisdiction over DEP? 8 CHAIRMAN BAGOFF: DEP supercedes the city. 9 We listen to all the testimony and make a decision. 10 THE PUBLIC: So if somethings in violation, 11 let's say for instance, I'm hearing testimony about DEP 12 and if they're making an error in decision, does the 13 city make a judgment on that or it has to go to court? 14 CHAIRMAN BAGOFF: Sounds like it has to go 15 to court. 16 THE PUBLIC: It has to go to court. 17 CHAIRMAN BAGOFF: We would catch the error 18 and the applicant would report back to the DEP or the 19 council would. 20 THE PUBLIC: The other question that I have 21 is, we're talking about high water season and I am 22 hearing this is form January to, Mr. Walsh? 23 THE WITNESS: April. 24 THE PUBLIC: January to April. So what 25 happened from April to December, is that considered high	83 1 development on the top but if you put a development up 2 there, obviously it's not going to be able to handle 3 that kind of water. But if you look at your records we 4 have a problem, even right now on Rosemont where the 5 city has been there like three or four times to try to 6 get that area taken care of. So that's one my concern. 7 And I just can't understand that, it seems to me like 8 the developer is getting -- 9 CHAIRMAN BAGOFF: Sir, can you ask him a 10 question about his testimony. You're testifying right 11 now. 12 THE PUBLIC: I want to ask the developer the 13 question here -- 14 CHAIRMAN BAGOFF: He's not testifying right 15 now. You can ask Mr. Walsh questions about the 16 testimony he provided this evening. 17 THE PUBLIC: So for instance, I'm hearing 18 that a lot of rules and regulations are being bypassed 19 so that the developer can have their way. 20 MR. PLOCKER: I'm going to object to that 21 characterization. 22 CHAIRMAN BAGOFF: Sir, that's why we are 23 here listening, to hear exactly what the developer has 24 to say and the other people have to say. Okay. So we 25 are all listening. Nobody's bypassing anything.
82 1 water? 2 THE WITNESS: That's considered dryer time 3 so less rain. Or the water elevations are lower. Like 4 in the summer it's hot, doesn't rain, those seasonal 5 water tables drop. DEP wouldn't want to measure then 6 and say, again, you're artificially lower at that time. 7 They want you to look at during the wet periods of time 8 where it's the highest because that's the most 9 conservative point of view. 10 THE PUBLIC: I don't want to take up all my 11 time, but my testimony, as well as my neighbors, I'm 12 actually at the lower part of the development and we had 13 a flood two or three years ago, we had, actually my wife 14 and myself, it took us, we were up all night to make 15 sure that our basement wasn't flooding. So if the 16 flooding is, the high water is not at that time, but we 17 have high water on our street in that area, many homes 18 were flooding, many, many homes from Cunningham, 19 Rosemont, etc., areas downhill, it was affected by the 20 heavy rains, that was past the high water season, that 21 was dry season. And what happens if it rains, sometimes 22 we get rain for like three, four, five, six days and 23 does this, the catch basin, would that be able to catch 24 all the water? From what I experienced in my family it 25 wasn't able to catch it. Right now we don't have	84 1 THE PUBLIC: My last question that I have as 2 far as the project and for this city -- 3 CHAIRMAN BAGOFF: Sir, you can do this at 4 the end. Right now we're trying to focus on asking Mr. 5 Walsh questions. 6 THE PUBLIC: I'm asking questions pertaining 7 -- 8 CHAIRMAN BAGOFF: To Mr. Walsh. 9 THE PUBLIC: -- to what he said and his 10 testimony. 11 CHAIRMAN BAGOFF: You got to ask him. 12 THE PUBLIC: Was there -- can the city have 13 some kind of a survey at the lower level of that 14 development area, for instance like Rosemont Terrace, 15 Mayfair, etc., those neighborhoods. Was any testing or 16 anything conducted in that area? 17 THE WITNESS: No, typically you don't do 18 additional stormwater mottling or analysis for much 19 further downstream. 20 THE PUBLIC: But it's affecting us, so if 21 you're going to project uphill then you have to have 22 some kind of testing. You just can't say well, just 23 going to affect this area so I'm not going to test down 24 here because it's going to affect the downhill 25 neighborhood.

85 1 CHAIRMAN BAGOFF: Okay. Thank you very 2 much, sir. We appreciate that. 3 Do any other members have questions. Please 4 come up. 5 THE PUBLIC: Mr. Walsh, my question -- Susan 6 Pannullo, P-A-N-N-U-L-L-O, 57 Holton Lane, Essex Fells. 7 Mr. Walsh question. In your November 15 8 letter you show, on Page 3, a BMP soil test summary of 9 that test. Can you explain that to us, please? There 10 is a table, if you want. 11 THE WITNESS: Yeah. 12 THE PUBLIC: Thank you. Take your time. 13 THE WITNESS: So this is a summary table 14 showing an area, I'm going to start from the left and go 15 to the right. The left column is a list of all the 16 basins or porous pavement systems they had proposed. 17 Next column is their infiltration area, which is what 18 the DEP uses as a measuring stick of how many test pits 19 you're supposed to have. The number of tests provided. 20 The number of test pits that were required and whether 21 or not they were compliant. What I will say about this 22 is it actually ended being a little outdated. I -- 23 either I didn't get notified or somebody slipped, there 24 was another set of tests that I didn't get to see. 25 Those ones happened in 2024. So they did more testing,	87 1 CHAIRMAN BAGOFF: Anybody else have a 2 question? Please come up here. 3 THE PUBLIC: Seth, S-E-T-H, Weisleder, 4 W-E-I-S-L-E-D-E-R. 5 My question is, if we can go back to where 6 you were showing some of those flow rates and the 7 potential for recalculation. You were showing a map 8 with the actual buildings there. 9 So I know we focused a lot on this page to 10 the left and then down towards the bottom. If you look 11 at Building D, that is the closest to the homes that 12 have been testified before. That corners, I think, 13 about 150 to 200 feet. Were you able to see any flow 14 rates there down towards the home that you see by number 15 8 over there and down that slope, were there any flow 16 rates that were calculated there? 17 THE WITNESS: So -- 18 THE PUBLIC: In your -- 19 THE WITNESS: -- the additional flows come 20 from the building. The way the roof is designed is 21 going capture through the gutters and drains and it 22 would be routed this way, towards the porous pavement 23 system. So it wouldn't be routing water towards this 24 property, it would be routing away in this direction. 25 MR. AFRAN: He means routing to the left of
86 1 so this shows the testing is less sufficient but they 2 did additional testing to this board so this, as this 3 table is outdated. They still don't meet it but it 4 doesn't -- it's not to the extremity that this table 5 shows. 6 THE PUBLIC: Okay. 7 Q. Could I just ask, just identify what page this is 8 on the screen so we have a reference? 9 THE PUBLIC: Page 3. I will ask you a 10 question, is that Page 3? 11 THE WITNESS: It is Page 3. 12 THE PUBLIC: Thank you very much. 13 MR. AFRAN: I'm sorry, Page 3, that's right. 14 So what document? 15 THE PUBLIC: I'm sorry. The BMP soil test, 16 correct? I'll ask a question. 17 THE WITNESS: It was the letter that we 18 wrote to the DEP in -- 19 THE PUBLIC: November 15. 20 THE WITNESS: -- November 15. 21 THE PUBLIC: Thank you very much. November 22 15. Thank you. 23 You know what, I have another question but I 24 need a little -- need to read about it first, so I will 25 let somebody else --	88 1 the building. 2 THE WITNESS: To the left of the building, 3 yes. 4 THE PUBLIC: So you're saying once it's 5 built, correct? 6 What about during construction and having 7 to, if you're blasting into soil or rock and bedrock, it 8 takes a while to get that structure and those flows 9 going that one direction, how would that affect 10 potential flow rates during construction down towards 11 the neighborhood? 12 THE WITNESS: I didn't look -- 13 THE PUBLIC: Your opinion. 14 THE WITNESS: I didn't look at it in 15 proposed construction condition. It would probably have 16 to have protocols, I mean during construction because 17 it's a messy process, they have to probably have 18 protocols in place to try to prevent that kind of issue. 19 But you're right, if you remove a lot of vegetation the 20 water, the runoff could or would increase and if the 21 contractors weren't careful it could increase in the 22 direction it's going now. So if you look at the 23 contours it would -- runoff travels perpendicular to the 24 contours, so it would flow this way. 25 THE PUBLIC: That way towards number 17 and

89 1 number 18? 2 THE WITNESS: Yeah. Now, again, I don't 3 know what the systems going to be set up in 4 construction, so I don't -- I'm speaking generally. 5 THE PUBLIC: So you haven't seen any reports 6 of what could be set up during construction to mitigate 7 any potential issues, damage, high flow rates? 8 THE WITNESS: I didn't review the erosion 9 control -- sediment control plan, no. 10 THE PUBLIC: I guess a point Mr. Chairman, 11 were erosion controls submitted to the board? 12 THE WITNESS: I believe they have erosion 13 control. 14 THE PUBLIC: There are so many documents. 15 CHAIRMAN BAGOFF: Okay. 16 THE WITNESS: It's outside my review. 17 THE PUBLIC: Okay. Thank you. 18 That's all for now. 19 CHAIRMAN BAGOFF: Thank you very much. 20 Any other members of the public have any 21 questions on Mr. Walsh's testimony? Please come up. 22 THE PUBLIC: Orin Knights. 23 I have a question for Mr. Walsh. As far as 24 with the deforestation of hundreds of trees that's going 25 to be taken from that area, how will that it affect the	91 1 Any other members of the public have 2 questions for Mr. Walsh on his testimony? Please come 3 up and identify yourself. 4 MS. MCGOVERN: Mr. Afran, is Ms. Pannullo 5 your client? 6 MR. AFRAN: As far I know Ms. Pannullo is 7 not an officer of my client. She may be married to an 8 officer, but as far I know she's not an officer. 9 THE PUBLIC: I am a neurosurgeon not a 10 client of his. 11 MS. MCGOVERN: You're not a client? 12 MR. AFRAN: As far I know Ms. Pannullo is 13 not an officer retaining jurisdiction. 14 MS. MCGOVERN: We Care is his client, if 15 you're representing -- 16 MR. AFRAN: I don't represent Ms. Pannullo. 17 Her husband is the president of We Care NJ. As far as I 18 know Ms. Pannullo is not an officer of my client. 19 THE PUBLIC: I am not an officer. 20 MR. AFRAN: Therefore I have no client 21 relationship with her. 22 MS. MCGOVERN: My understanding was that 23 nobody -- my understanding was that if you are 24 representing the organization that any member of the 25 organization was therefore being represented by you and
90 1 drainage as far as, because you're not going to have the 2 trees there anymore. This plays a major part in 3 absorbing the water. So is the catch basin, those 4 things enough to stop major flooding not only uphill but 5 downhill? 6 THE WITNESS: Well, when they remove -- 7 THE PUBLIC: We're talking hundreds of 8 trees. 9 THE WITNESS: No, I understand. It's a 10 large area the development. So when they remove those 11 trees they're going to change the landscape type which 12 means it's going to generate runoff. The forest doesn't 13 generate a lot of runoff. Now, what's supposed to 14 happen, is the design system is supposed to understand 15 that and counteract that and capture stormwater in 16 pipes, trap it in basins and slowly release it. What I 17 was trying to say was, I think there was some flaws in 18 some calculations where it's not actually going to do 19 that. It is their intent to do that. They're not 20 trying to intentionally flood anyone, but I think there 21 were some missed calculations and missed observations 22 that I think this design will increase flooding. Will 23 increase runoff that can trigger flooding. 24 THE PUBLIC: Thank you, Mr. Walsh. 25 CHAIRMAN BAGOFF: Thank any.	92 1 you were going to be asking the questions on their 2 behalf. 3 MR. AFRAN: As far as I know they only have 4 officers, it's not a member corporation and I think we 5 progressed to the point, Ms. McGovern, the wife of an 6 officer is an individual in her own right. 7 MS. MCGOVERN: Believe me, I'm not 8 challenging that. My point, my question is, if she's 9 part of the organization, separate and distinct from her 10 husband? 11 MR. AFRAN: Allow me to ask a question. One 12 moment. 13 THE PUBLIC: Ask my husband. 14 MS. MCGOVERN: You can ask her. 15 MR. AFRAN: I'm asking Mr. -- 16 MS. MCGOVERN: I'm asking who you represent. 17 MR. AFRAN: I'm not asking Mr. Pannullo 18 about his wife. I'm asking Mr. Pannullo about the 19 structure of We Care NJ. 20 MS. MCGOVERN: Fine. 21 (Whereupon, a short recess is taken.) 22 MR. AFRAN: We Care NJ is not a member 23 Corporation, it is a 501(c)(3) but not a member 24 corporation -- 501(c)(4), does not have members. It 25 only has officers. So all though I understand Ms.

93 1 McGovern's question that perhaps the wife of the 2 president might well be a member, it does not have 3 members. It only has officers. 4 MS. MCGOVERN: Just officers, not members? 5 MR. AFRAN: It has trustees, no members. 6 MS. MCGOVERN: Okay. 7 MR. AFRAN: As far we know Ms. Pannullo is 8 fully an independent person in her own right. 9 THE PUBLIC: That's a matter of debate 10 sometimes. Okay. 11 May I continue? 12 CHAIRMAN BAGOFF: Go right ahead. 13 THE PUBLIC: Thank you. 14 Mr. Walsh, was the plan you and I discussed 15 the original plan that was submitted? 16 THE WITNESS: This plan has changed a few 17 times since it was originally submitted to the DEP. 18 THE PUBLIC: Did you review the previous 19 plan? 20 THE WITNESS: I reviewed a few different 21 versions of this plan. 22 THE PUBLIC: So I guess the answer would be, 23 yes? 24 THE WITNESS: Yes. 25 THE PUBLIC: Thank you.	95 1 THE WITNESS: Page 9. 2 THE PUBLIC: Thank you. 3 And we want Page 3. So we had referenced 4 Page 9 earlier, but what I'm interested in looking at, 5 if you can find Page 3. Thank you. And I think if you 6 want to save some time it would be Paragraph 2, correct? 7 That's the one I was interested in looking at. 8 THE WITNESS: Under methodology. 9 THE PUBLIC: No, maybe not. You know what, 10 I'm not sure which paragraph, I will have to take a look 11 back. I will give somebody else the opportunity to come 12 up while I take a look, I'm sorry, which paragraph it 13 was. Okay. 14 Thank you. 15 CHAIRMAN BAGOFF: Any other member of the 16 community have a question for Mr. Walsh on his 17 testimony? Please come up. 18 THE PUBLIC: Mike Brick, 19 Colony Drive, 19 West Orange. 20 Am I allowed to appear as the chairman of 21 the Environmental Commission or as a private citizen 22 right now? 23 CHAIRMAN BAGOFF: Private citizen asking Mr. 24 Walsh questions. 25 THE PUBLIC: Okay. I am a private citizen.
94 1 What was the difference? 2 THE WITNESS: The stormwater -- well, I want 3 to say I reviewed the stormwater portion of the plan, I 4 don't pretend I observed anything else, reviewed 5 anything else. But the stormwater system became more 6 complex as it kept developing. Originally I don't think 7 there was any pervious pavement system involved. 8 Basically basin number 2 was drastically different. I 9 believe basin 1 was different. It's a little while ago, 10 can't quite remember all the changes. 11 THE PUBLIC: That's okay. 12 THE WITNESS: But it looked like a different 13 site. 14 THE PUBLIC: Okay. 15 And do you know why it was withdrawn? 16 THE WITNESS: I don't know if it was, I don't 17 know why they updated the plans. 18 THE PUBLIC: Okay. 19 THE WITNESS: I don't want to guess. 20 THE PUBLIC: Okay. I won't go on. We don't 21 have much time. 22 So earlier you referenced ACS Page 9. Can 23 we pull up, I believe Page 3 of the ACS report. Can we 24 do that. I'm interested in looking at paragraph number 25 2, I believe it is.	96 1 Mr. Walsh, you discussed the criteria from 2 EPA on the old standard. Do you ever forecast the 3 future what standards will be as the environment 4 continues to deteriorate say in 10, 20, 30 years? 5 THE WITNESS: What do you mean, forecast? 6 THE PUBLIC: The changes in the environment 7 will only get worse and so we've seen the EPA change 8 their standards from five, six years ago to now. Do you 9 forecast another -- 10 CHAIRMAN BAGOFF: Sir, referencing DEP? 11 THE PUBLIC: Yeah, is that what I said? 12 MS. MCGOVERN: You said EPA. 13 THE PUBLIC: Sorry. 14 DEP. Do you forecast five or six years and 15 then another 10 or 15 years for the standards that your 16 looking at for stormwater runoff, is that possible? 17 THE WITNESS: That would involve a 18 statistical model that I don't think -- I will say with 19 forecasting the inland flooding rules that DEP tried to 20 do, they wanted to forecast 100-years into the future 21 and they provided storm sizes for what we need to 22 predict now based on data on what it would look like 100 23 years in the future. 24 THE PUBLIC: So the data that you are 25 talking about that are not being applied to this project

97 1 are standards from five or six years ago that had 2 nothing to do with the 100-year project and as you look 3 at five or six years ago were they projecting the 4 stormwater runoff? 5 THE WITNESS: Were they projecting the 6 future storm sizes? 7 THE PUBLIC: Yeah. 8 THE WITNESS: That's was when we saw the 9 latest rules, inland flooding rules and I believe that 10 was, I can't remember the date now, but two or three 11 years ago. 12 THE PUBLIC: If you looked at the old 13 standards versus the new standards, and looking forward 14 to our future with environmental degradation, would you 15 say that the new standards, which you're not even 16 governed by, would be woefully inadequate for the future 17 10, 20 years? 18 THE WITNESS: I don't know if I can speak 19 what it's going to look like in 10, 20 years compared to 20 the new standards I have. That's like an evaluation, so 21 like the DEP rules that I am not really, I don't think I 22 could talk to that point. Are you trying to imply 23 they're going to be even worse? 24 THE PUBLIC: Absolutely. 25 THE WITNESS: I haven't reviewed data to like	99 1 THE WITNESS: Well, this is Canoe Brook on 2 the left and I think -- well, I'll be honest, I was 3 focused on the site. I don't know exactly where these 4 feed into and what their headway's are. The stormwater 5 analysis is pretty close to the site and that's where I 6 was trying to put my focus on. 7 THE PUBLIC: Would it be possible for you to 8 do that evaluation? 9 CHAIRMAN BAGOFF: He didn't testify to that 10 so let's -- he didn't testify to that. 11 THE PUBLIC: He didn't? 12 CHAIRMAN BAGOFF: He didn't testify to that. 13 You can ask him questions about what he testified to. 14 Right now you used up your time. Thank you very much. 15 THE PUBLIC: You're welcome. 16 CHAIRMAN BAGOFF: Any other members of the 17 public have questions for Mr. Walsh on his testimony? 18 Please come up. 19 THE PUBLIC: Jessica Pearson again. Thank 20 you. 21 So picking up on a couple other things that 22 were said by other members of the public. You looked at 23 their calculations for peak flow? 24 THE WITNESS: Yes. 25 THE PUBLIC: Okay.
98 1 give that kind of professional opinion on it, so I don't 2 think I can comment on that. 3 THE PUBLIC: Army Corps of Engineers, have 4 you taken into consideration what they plan to do 5 downstream on the Rahway River, the Orange Reservoir, 6 that's an improved future project for stormwater runoff? 7 THE WITNESS: No, I haven't seen any of 8 those plans. 9 THE PUBLIC: Are you aware that the 10 topography of this land supplies water to two river 11 systems, the Canoe Brook and the Rahway River systems? 12 THE WITNESS: Yeah, that was my 13 understanding. 14 THE PUBLIC: Have you look at the percentage 15 of water running off of each of these two different 16 systems? 17 THE WITNESS: From this section itself you 18 mean? 19 THE PUBLIC: This project. You know, this 20 mountain side. 21 THE WITNESS: I discussed a little bit how 22 it was draining to wetlands that are headwaters of that 23 area. 24 THE PUBLIC: The wetlands are which river 25 system?	100 1 And you looked at them under present 2 conditions and it's natural state? 3 THE WITNESS: Yes, that's the benchmark 4 used. 5 THE PUBLIC: And then you looked at their 6 calculations based on the 2, 10 and 100-year storms? 7 THE WITNESS: For existing conditions, yes. 8 THE PUBLIC: Under existing and then their 9 proposed conditions in various states of development 10 depending on which portion of the site and which 11 watershed they were talking about, right? 12 THE WITNESS: Yeah, I didn't try to 13 recalculate what they did in proposed conditions. I was 14 measuring against the new -- the way, I would call them 15 revised peak flow, existing peak flow evaluations. 16 THE PUBLIC: So when you explained their 17 calculations you had stated that, we know that they're 18 not running calculations for the future for year 2100, 19 we know that they're not running calculations based upon 20 the new rainfall totals currently, but going back to the 21 2021 stormwater ordinance, before the new rainfall 22 totals were wrapped up for Essex County, accordingly 23 were their proposed conditions meeting the muster of 24 that ordinance or did they fall under even there? 25 THE WITNESS: I think based on my analysis

101 1 and findings some of the design calculations, they were 2 not passing that. 3 THE PUBLIC: So they didn't pass 2021, 4 forget about 2024? 5 THE WITNESS: Yeah, no. 6 THE PUBLIC: Okay. 7 Can I ask you to go to, I don't know if it's 8 9 or 10. 9 THE WITNESS: Can you explain to me -- 10 THE PUBLIC: You were talking about time of 11 concentration. You were talking about it. It's a map. 12 THE WITNESS: It's here. 13 THE PUBLIC: I guess what I was trying to 14 understand is, you were talking about that they 15 artificially increased the time of concentration? 16 THE WITNESS: They decreased. 17 THE PUBLIC: Decreased it. Okay. 18 Tell me what that really -- I am trying to 19 understand, get my head around this. If they decreased 20 the time of concentration, you know, when they take all 21 the trees down the water can rush and it won't look like 22 a big deal, right? I'm just saying. 23 THE WITNESS: That's -- I'm not saying like 24 that could happened. But like, yeah, generally it's 25 higher so then when they change the landscape where it's	103 1 THE PUBLIC: I don't know where -- 2 THE WITNESS: This is the table. 3 THE PUBLIC: That was their table from their 4 storm management report? 5 THE WITNESS: Yeah. So what we're saying, I 6 was talking about the two-year storm and 100-year storm. 7 Where they did the 100-year storm they calculated a peak 8 flow runoff of 83. 9 THE PUBLIC: Is that 83 -- 10 THE WITNESS: It's cubic feet per second. 11 THE PUBLIC: Thank you. 12 THE WITNESS: It's a big area. We 13 calculated the peak flow rate of 37 cubic feet per 14 second, so a lot lower than this. And what's really 15 interesting to note is there was that their proposed 16 peak flow runoff rate was actually higher. 17 THE PUBLIC: Higher than? 18 THE WITNESS: It was higher than what was 19 calculated as existing. So it was actually almost two 20 to three feet per second. 21 THE PUBLIC: So that when the changes occur 22 on the site it wouldn't show as a change, it will just 23 be like, oh, we're keeping everything -- well, they're 24 saying they're improving? 25 THE WITNESS: They're saying they're
102 1 going to generate more runoff it's easier to come down. 2 THE PUBLIC: So I'm just trying to get this 3 straight. If you artificially reduce the time of 4 concentration -- 5 THE WITNESS: Yes. 6 THE PUBLIC: -- and you see the water rushing 7 down a slope and now there's not even anything to slow 8 the water down because the trees are gone, it's going to 9 look like fast time of concentration. I'll say fast. 10 The water rushes fast. And then in your proposed 11 conditions it wouldn't be such a shock when there's no 12 buildings and no trees. It will just be a little bit, 13 maybe a little bit faster, but we're going to put basins 14 in that will hold and contain some of that water? 15 THE WITNESS: Yes. 16 THE PUBLIC: And so was your final thing 17 where you showed that table and you said their time -- 18 was that time of concentration -- 19 THE WITNESS: That was peak flow rates. 20 THE PUBLIC: Okay. 21 And they were, you said increased or 22 decreased over and above what the, what the site started 23 out as? I hope I'm not confusing you, I'm confused, so. 24 THE WITNESS: I gave very technical 25 testimony, I appreciate everyone's patience for that.	104 1 improving, but we're saying in reality you're actually 2 going to see it get worse. 3 THE PUBLIC: Okay. Thank you very much. 4 CHAIRMAN BAGOFF: Any other members of the 5 public have any questions for Mr. Walsh? Please come 6 up. 7 THE PUBLIC: Seth Weisleder. 8 We are focusing a lot on flow rates coming 9 down and where they go, but I think at the beginning of 10 your testimony you were talking about the storage. 11 Storing of the water and basins. So if I am correct 12 from what I understood, the basins, because of more -- 13 well, higher flow rates I guess, depending on where they 14 fill up, they're going to be filled up to almost 15 capacity based on potential mottling issues and not 16 having the correct table, so potentially what I think 17 you're trying to say is that their basins need to be 18 deeper or recalculated, is that correct? 19 THE WITNESS: Yeah. I wouldn't say deeper, 20 have to be wider because the problem was they were going 21 to deep. They were running into seasonal high, so it 22 was eating away their storage. So you have to make it 23 shallower and wider. You can't go deeper, you have to 24 go wider. 25 THE PUBLIC: And in your opinion, based on

105 1 the plan that you see, if they're not wider what 2 happens? 3 THE WITNESS: You're going to have increased 4 flow rates. You're not going to meet the required 5 reduction. You're going to have increased flood storm 6 runoff coming from the site and you're going to risk 7 flooding downstream. 8 THE PUBLIC: And then in your opinion, 9 looking at the overall plan, of course porous pavement, 10 basins, is there enough of that or does there need to be 11 more? We're talking about widening things but does 12 there need to be more porous pavement and things in 13 different areas? 14 THE WITNESS: Need to see more volume, 15 larger basins and more basins, more porous pavement. In 16 general you need to hold more water back to meet your 17 flow reduction requirements to make sure you're not 18 flooding others. You're going to have a lot more water 19 coming so you're going to hold it back and slowly 20 release it over time. 21 THE PUBLIC: Thank you. 22 CHAIRMAN BAGOFF: We're going to close that 23 portion of the meeting and we're going to take a 24 five-minute break. 25 Thank you.	107 1 what he testified to answer the question. 2 MR. AFRAN: I don't recall the witness spoke 3 to cutting down trees, but in the record there was other 4 witnesses, there has been testimony about trees being 5 cut down and we offered our own tree -- 6 CHAIRMAN BAGOFF: Right now we're focused on 7 the wetlands and Mr. Walsh did testify to wetlands and 8 what's happening to them and the amount of water, 9 stormwater. He said -- 10 MR. AFRAN: We're not pointing out, it's in 11 the record from other witnesses testimony about trees 12 being cut down, so I don't know what the focus is of 13 this member of the publics question, but there is other 14 information in the record that trees are being cut down, 15 so I think it's proper for a question to incorporate 16 that, even if this witness didn't necessarily testify to 17 it, depending on the nature of the question. 18 CHAIRMAN BAGOFF: She can review the 19 previous questions. Right now Mr. Walsh is talking 20 about stormwater and you should direct your questions to 21 stormwater only. 22 MR. AFRAN: Should she reask it or repeat it 23 because -- 24 THE PUBLIC: I can repeat it. 25 CHAIRMAN BAGOFF: Please.
106 1 (Whereupon, a short recess is taken.) 2 CHAIRMAN BAGOFF: Back on the record. 3 Mr. Afran. 4 MR. AFRAN: Mr. Chairman, I do have one 5 follow-up question for my clients witness, but I don't 6 know if the members of the public concluded. 7 CHAIRMAN BAGOFF: We're done with public. 8 You're up. 9 Q. Mr. Walsh, you -- 10 THE PUBLIC: We got a member of the public. 11 MR. AFRAN: We'll defer to the, Chair. 12 CHAIRMAN BAGOFF: I'm sorry, ma'am. Come 13 up. 14 Go right ahead. 15 THE PUBLIC: Sarah O'Farrell, Verona. 16 Mr. Walsh, good evening. I heard all the 17 trees would be cut down and also heard natural runoff 18 will be diverted to wetlands on-site. So does that mean 19 that wetlands will then cease to exist in their present 20 state as natural stormwater management surrounding 21 neighborhoods? 22 MR. PLOCKER: I'm just going to object. I 23 don't think there was any testimony that all the trees 24 would be cut down. 25 CHAIRMAN BAGOFF: I think you can clarify	108 1 THE PUBLIC: I saw that the water on one of 2 your slides will be diverted from the wetlands on-site. 3 So does that mean that the wetlands then will cease to 4 exist and in their present state as natural stormwater 5 management for the surrounding neighborhoods? 6 THE WITNESS: So I showed that on the left 7 side of the plan 55 sanitary and right side about 32 8 percent. I'm not a mathematician, I'm an engineer guy, 9 so I can't speak specifically to the logical results of 10 that. I think we have testimony coming later that will 11 speak directly to your question. So I don't know that I 12 can speak to that. 13 THE PUBLIC: I understand. Thank you. 14 So Mr. Walsh, if this is built in a 15 neighborhood -- okay. 16 With the property of this size consisting of 17 wetlands and high seasonal high water tables in addition 18 to removing all those trees, is it really possible to 19 design a stormwater management system that will retain 20 enough water for this large scale project and not 21 negatively effect the surrounding homes? Homes down the 22 street and the surrounding wetlands. 23 THE WITNESS: I am not doing the design of 24 this. I just reviewed someone's design itself and I 25 wouldn't go as far as to say they couldn't do this, but

109 1 any way you look -- I didn't really look at that kind of 2 scope, so. 3 THE PUBLIC: What about if, Mr. Walsh, if 4 this is built and the system that's designed doesn't 5 work as planned because the calculations are outdated, 6 who ultimately is responsible for the flooding? 7 I don't know if that's -- 8 THE PUBLIC: That seems like law, I would 9 defer to -- it's legal liability. 10 MR. AFRAN: I don't think I would comment on 11 that at this point. It is partly a legal question, 12 partly a practical question. 13 CHAIRMAN BAGOFF: Let's leave legalese at 14 the moment. 15 THE PUBLIC: Thank you. 16 CHAIRMAN BAGOFF: Thank you very much. 17 I'm sorry, Mr. Walsh, you had a follow-up 18 question? I'm sorry, Mr. Afran, you had a follow-up 19 question. 20 Q. Mr. Walsh, I believe a witness, Dr. Pannullo I 21 believe, asked a question that led you to say that there 22 was a later set of figures submitted by the applicant to 23 DEP that when you wrote the letter November 15 you had 24 not yet seen that. Do you recall that question and 25 answer?	111 1 MR. PLOCKER: That's fine. I just want a 2 clear record. 3 THE WITNESS: I wasn't there when Langan 4 spoke. 5 MR. PLOCKER: Let me -- 6 THE WITNESS: I can tell you the dates of the 7 reports. 8 MR. PLOCKER: Yeah, I was going to ask you 9 that. Can you identify the additional testing reports 10 that you were referring to in your testimony? 11 THE WITNESS: February 12, 2024. April 4, 12 2024. 13 MR. PLOCKER: Thank you. 14 MR. BAGOFF: Mr. Klein. 15 MR. KLEIN: So that chart that you had -- 16 CHAIRMAN BAGOFF: Which chart? 17 MR. KLEIN: I'm going to try to describe it. 18 It had different types of detention -- that's the one. 19 Page 3. Thank you. 20 You had a bunch of testing things that were 21 missing, a certain -- yeah, that. 22 So that column, now you're saying the 23 numbers are less, do you know how much less? 24 THE WITNESS: I provided testimony -- 25 MR. KLEIN: You said one or two instead of
110 1 A. Yes, I remember that. 2 Q. Now, could you clarify to what extent, though 3 your November 15 letter did not address that additional 4 information, that your testimony tonight has? 5 A. My testimony tonight includes that additional 6 soil testing. I have updated my findings after I was 7 able to review that. What I'm saying now is in 8 conclusion with that report. 9 Q. Fair to say the November 15 letter did not 10 address that because you had not seen it but your 11 testimony does? 12 A. Yes. 13 Q. Thank you. 14 MR. AFRAN: That was the extent of my 15 follow-up question. 16 CHAIRMAN BAGOFF: So -- 17 MR. PLOCKER: Just really quick. 18 Can we just confirm for clarity of the 19 record the additional soil testing that Mr. Afran and 20 the witness was referring to, is that the additional 21 testing that was performed during the pendency of this 22 hearing that was testified to by Langan at the more 23 recent meeting? 24 MR. AFRAN: I believe it's for the witness 25 to answer not me personally.	112 1 three or five. 2 THE WITNESS: One moment. 3 I discussed earlier BMP number five, six, 4 eight -- I'm sorry. Five, six, eight, nine, ten are one 5 short. Seven is two short. 6 MR. KLEIN: And the rest stay the same? 7 THE WITNESS: Yeah. 8 MR. KLEIN: Okay. 9 THE WITNESS: The rest are compliant. 10 MR. KLEIN: Can we get a new table? 11 THE WITNESS: Yeah. 12 MR. KLEIN: It's not that -- I thought the 13 no was still going to be in the right column. 14 THE WITNESS: No. 15 MR. AFRAN: Between now and the next meeting 16 we will try and have an updated table. 17 And just for the record, what we're 18 referring to is Page 3 of Mr. Walsh's November letter. 19 MR. KLEIN: Okay. 20 CHAIRMAN BAGOFF: Okay. 21 Anybody else? 22 Done. Thank you. 23 THE WITNESS: Thank you very much. 24 MR. AFRAN: Thank you, Mr. Chairman. We 25 appreciate the board having heard our witness.

1 CHAIRMAN BAGOFF: So this meeting will be
 2 carried to a special meeting on March 19 at 6:30 PM,
 3 town hall in person and no additional notice will be
 4 required.
 5 (Hearing includes at 9:35 PM.)

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1
 2 WITNESS:
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2 I, ERIC S. FISHMAN, a Shorthand Reporter
 3 and Notary Public of the State of New Jersey do hereby
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 5 transcript of the testimony as taken stenographically by
 6 and before me at the time, place and on the date
 7 hereinbefore set forth, to the best of my ability.

8 I DO FURTHER CERTIFY that I am neither a
 9 relative nor employee nor attorney nor counsel of any of
 10 the parties to the action; and that I am neither a
 11 relative nor employee of such attorney or counsel; and
 12 that I am not financially interested in the action.

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 ERIC S. FISHMAN, S.R.

Dated: 3/3/2025

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