City of Columbus
Public Hearing – Chapter 7A-803, Minimum Construction Above Known High Water and Chapter 7A-201-9B Definition of "Buildable Area" – Zoning Code Amendments (PC-16-102)
January 6, 2016

The January 6, 2016 Public Hearing to receive testimony regarding amending Chapter 7A-803, Minimum Construction Above Known High Water and Chapter 7A-201-9B Definition of "Buildable Area", in the Columbus City Code was called to order at 9:25 p.m. by Chair Garth Sternberg at the City Hall. Present were Commission members Jim Watson, Pam Wolowski, Jesse Preiner, and Jody Krebs; City Administrator Elizabeth Mursko, Engineer Dennis Postler, Building Official Leon Ohman, and Recording Secretary Karen Boland.

Also in attendance were City Council members Mark Daly and Bill Krebs; Chris Knight, Richard Whitman, Jason Rud, Tom Carlisle, Darrell Thurnbeck, Mike Muske, and Pat Preiner.

Sternberg: We're going to call to order another Public Hearing and discussion, Chapter 7A-803, Minimum Construction Above Known High Water and Chapter 7A-201-9B Definition of Building Area – Zoning Code Amendments, pages 35 - 38. And, at this time, I'd like to ask Karen to read the notice as published.

Notice was read at this time by the recording secretary.

Sternberg: Thank you. So somebody . . . is there anybody that's going to present this?

Mursko: Dennis.

Sternberg: Dennis.

Postler: Okay.

Mursko: That's why Dennis is here tonight. We told him it was going to be an early night. (laughter)

Sternberg: Good luck, Dennis.

Postler: And you lied to me. Um, basically, what this is saying here, is that the City has had the code for a long time saying that, uh, what's defined as–give me a minute here–that the high water table, by definition, the City has used mottled soil to determine that, and that the buildable area needs to be a minimum of three feet above that. Um, the new, the ordinance in the new language would, um, modify that to say that that is still the case, however, um, unless evidence is submitted or certified by a geo-technical engineer, at the expense of the developer, that a separation of less than three feet can be achieved and is warranted. So, there's been conversations about what that means, whether the use of piezometers determining what the ground water level is . . . Um, so that's what the main gist of this is, that it's still saying it's three

feet above the high water table, but it's, it's putting some conditions on how do you define the high water table, historically.

Sternberg: So, well . . . I'll let you finish, and then I'll . . .

Postler: Sure. I know Larry had done some research, I was asked to do some research of surrounding communities, and , uh, they have similar ordinances, and actually a lot of their ordinances indicate that, um, it needs to be four feet above whatever alternate method was determined to determine high water table. Um, so there's still going to be subjectivity to this; there's going to be engineering judgment. Um, I don't think there was a conclusion that came to, that was decided upon as far as how long should monitoring be done. I know Larry had also mentioned that, um–maybe he got it from you, Leon–that MPCA says you need, or groundwater level should be monitored for up to seven years. Which, you know, it gets you through, theoretically then, the multitude of different wet and dry cycles, so you can get an accurate determination. What, what we're proposing or what the language is proposing to modify is that it's not going to be a hard-and-fast rule that it's three feet above mottled soil. Um, if a developer, through a geo-technical engineer, certified geo-technical engineer of their own, can prove that something less than three feet above mottled soil is, is, certified, then we can use, the City can make a determination of whether they want to accept that or not

Sternberg: That would kind of put it on the Engineer then. Right?

Postler: Right. Yeah, this has gone back and forth a number of times and been reviewed, or, prepared by the City Attorney, so I'm comfortable with the language.

Sternberg: Okay. So, this isn't necessarily lowering the, the floor.

Postler: It's possibly allowing the lowest elevation to be lowered, less than three feet below mottled soil, if other engineering methods can determine that's acceptable.

Sternberg: Right.

Mursko: It's also allowing the accessory building to be two feet.

Sternberg: Instead of three?

Mursko: Instead of three.

Sternberg: Changing it to two? Okay. Any questions? Okay then, at this time, I'd like to open it to the public. Is there anyone here from the public that would like to speak on the matter? Okay, then, I'm going to close the meeting, the hearing . . . Oh, come on.

Rud: I've been waiting for you all night.

Wolowski: He's been only here two-and-a-half hours.

Rud: That's all right. I know you've been here for two-and-a-half hours, so I understand. Uh, my name's Jason Rud. I'm with E. G. Rud and Sons, out of Lino Lakes, and, um, we're working with Tom Carlisle on Thurnbeck Preserve. Had come before the City with our sketch plan review, and, um, simply put, a concern was the current ordinance and what the low floor requirements are in Columbus. Um, with the three-foot standard, we had visited with Larry before, as well, and mentioned our concern, and he did do the research of the surrounding communities, and we do see that the other communities obviously vary, and they have a mechanism in their ordinance to allow you to look at a variation from their ordinance from mottled soil. Um, one example is Ham Lake, where their requirement is one foot above mottled– for their homes. This is no discussion about septic. Not asking you to change the septic. Septic is what it is. We're talking about home floors. But, in that municipality we can go one foot above mottled, without deviating from their ordinance. That's what their ordinance is. It makes quite a difference when you're doing a single-family development.

Postler: It's one foot above 100-year floodplain, not mottled soil.

Rud: Actually, Ham Lake is one foot above mottled soil. That is their requirement. And then they also have freeboard requirements for their 100-year flood elevation as well. Um, so, what this does, is, it provides a mechanism to at least have an option without requesting a variance. That's why we're doing this. The standard doesn't change, in that the three feet is required, but it does allow the opportunity to sink piezometers, monitor groundwater, and come with additional information to establish low floors. So . . . And I think I understood this was a preferred option as opposed to asking for a variance.

Mursko: Right.

Rud: Right.

Postler: Like I mentioned, I think what remains to be determined is that: 'What is an acceptable length of time for monitoring wells?'

Sternberg: Yeah. I was gonna, I was gonna talk to you about that.

Rud: What I've seen, um, never seen seven years, with all due respect.

Ohman: It came right from the MPCA.

Rud: Yup. Yup. Fair enough. Never seen seven years. That would be quite an extended period of time. Um, we have a couple different geo-technical people we work with, and they make recommendations to us. And when they sink the piezometers, often times we've seen that they recommend setting it four feet above water table. Which they monitor for us. But it's usually quite a bit shorter period of time than seven years.

Sternberg: That's a long time–seven years.

Rud: Yeah. Yeah. Housing market would change in seven years, so . . .

Sternberg: Yeah. You might get more for your house.

Rud: I'm sorry?

Sternberg: You might get more for your house. Maybe?
(laughter)

Krebs: I have a question, Mr. Chair. Um, is it possible to go to a one foot mottled soil if it were a slab-on-grade, uh, building, home?

Postler: Um, um, not a primary or a . . .?

Krebs: Can we . . . On the home? If it was a slab-on-grade home, could we go as far as one foot to mottled soil, instead of the two feet that you're stating, not less than two feet? Is that a possibility of . . .?

Postler: I'd say it's a possibility, but I would then use the monitoring well method to see if, you know, they can lower it from three feet to one foot. You know what I'm saying?

Krebs: No. Say it again.

Postler: You're saying, can we lower the existing requirement from three feet to one foot?

Krebs: Or just an addendum here saying, 'if it's a slab-on-grade building/home/structure, that it be allowed to be one foot to mottled soil.' 'Cause now you're not talking about a basement anymore. Now you're talking about . . .

Postler: You're still talking about lowest floor elevation.

Krebs: Right. Right.

Postler: And, I think the two foot, if I remember–Elizabeth, correct me if I'm wrong–came from a Council conversation.

Mursko: The accessory building?

Postler: That was the accessory building. I think she's asking about now primary residence. This would . . . They didn't talk about lowering that from three feet to two feet.

Mursko: I was just going to say, I don't, that wasn't the conversation at the Council level.

Postler: Yeah, it was only the accessory.

Mursko: It was only on the accessory.

Postler: So I don't think we want to go there with the primary, even if it's a slab-on-grade, you're still talking lowest floor, whether it's a basement or a slab.

Krebs: Okay. Okay.

Sternberg: But this here would give you potential to lower, not–I don't want to say, bring your first floor down to one foot above mottled soil–but, you could determine, through engineering, that, 'Hey, this isn't soil mottling, this is an iceberg that pushed this in here, and, it's actually down here, so that may actually be–just for a round number–two feet lower than what the actual mottled soil was.' So your option A would be to go three feet above the mottled soil finding in the boring, hire an engineer and spend all that money and determine that no, that's a false–um, he said it earlier, in the earlier meeting–a perk . . .

Postler and Ohman: Perched water table.

Sternberg: Perched water table? You may discover that with engineering, that that's a perched water table which, your engineering dollars could get your floor lower, and it'd be off the City's . . . It would rely on the engineer, then the engineer would be . . . That's where the warranted part comes in, the warranted verbiage in here?

Postler: Yeah, I mean, even if it's a perched water table and mottled, and you do monitoring wells and you can determine if that actual groundwater hit a lot lower than that, you're still not going to want to build below the perched water. Um, you can go lower; this is saying you can go lower than the mottled soil elevation. You know, I don't know how many perched water table areas there are in Columbus.

Ohman: We, generally, don't, in Columbus, have any perched . . . Perched water tables generally happen when you've got, um, it's called a moraine, but it's a lump in the . . .

Postler: I think he was just throwing it out there as a . . .

Sternberg: An argument?

Postler: An argument.

Ohman: Correct. Yeah. There aren't any here in Columbus, that I'm aware of. We just have a really high water table.

Postler: In, in theory, it could allow you to, to go below, so . . . Historically it's been three feet above mottled soil. If you do piezometers and groundwater monitoring wells, let's say you found out that, you know, based on that it's, it's a lot lower. Let's say it's eight feet lower than that. And then, they still say, we'll build four feet to put in the safety factorization. Most other geo-technicals they build four feet above that. Well that actually then puts you below what the mottled soil is. Um . . .

Rud: Which does happen. You know, uh . . .

Postler: And then there's engineering judgment. Would you, would you want to allow that or not? Probably not.

Rud: And that does happen – exactly to that scenario – where initial soil borings will be done– hand borings–to determine mottled soil elevations, piezometers are sunk, um, groundwater is established. So that you have better information to establish these low floors. Those low floors can, indeed, go below mottled soil. But you still need drainage, you still need the positive drainage for your walkout. You're still dealing with the freeboard requirements in setting your low floors, so that they, um, above the 100-year flood elevations of the stormwater ponds–of FEMA elevations–all those criteria stay the same. We're just talking about establishing low floors for homes in the future.

Postler: I'm guessing in Columbus, you're not going to have that drastic of a difference, impact. So, we're talking, trying to gain a foot or two, probably

Rud: Yup. Which would make a big difference over a project of this nature.

Sternberg: And this may do that.

Rud: I'm sorry?

Sternberg: This ordinance change may do that.

Rud: Correct. Yeah. As opposed to coming in and asking for a variance with this information.

Sternberg: Right.

Postler: If I remember correctly, your concept plan, you had assumed grading using one foot? Just for a, a concept.

Rud: Uh, correct.

Postler: So, if that changes, you've got, it's obviously a large impact for grading.

Rud: Correct. Yup.

Postler: But if it, you know, it turns out that they do their monitoring wells and it comes back to the exact same elevation as three feet, then . . .

Rud: We're back at it.

Sternberg: Okay. If you'd like to . . .

Carlisle: Yeah, I'd like to . . . I guess I'd like to clarify a little bit.

Sternberg: If you could just state your name and address for the record too.

Carlisle: Okay. Tom Carlisle. It's 21501 Humber Street.

Sternberg: Thanks.

Carlisle: Wyoming, Minnesota. Um, and I, hopefully this doesn't end up into a situation where every, um, I guess what I'm a little concerned about after the long-winded septic scenario, is that, we–if I understand this right–we can get, I mean, we'll sink our piezometers, we're going to get an engineer to tell us what's going to happen, and then, are you gonna then look at those, or I mean are you, then, are we done, and we're gonna rely on those, and those are gonna be it or are those gonna be scrutinized by somebody else?

Sternberg: I believe you–you want to answer that, Dennis?

Postler: I would say they're gonna be scrutinized. They're still gonna be your engineering judgment. Typically, again . . .

Carlisle: Okay. Is it gonna be you or is it gonna be a building inspector? Who would do that?

Postler: My understanding is that it's going to be engineering, our engineering call.

Carlisle: Yeah. Yeah. Okay. Yeah, because I just don't want to have, you know, get in a situation where we're back and forth all the time and we can't come to a resolution. If that's the case, then it's a simpler, cleaner deal just to, you know, I guess lower the distance between mottled soils. Instead of three, go to something less and call it a day. You know?

Postler: Well, construction has been, from my understanding, quite successful with using the three foot above mottled soil scenario, so . . .

Carlisle: No. No.

Postler: No? In Columbus?

Carlisle: No. It's not successful. You go look, you go around this area and you look at the sites, and you look at the houses, and you see how they sit up in the air. I mean, it's, it's . . .

Postler: I'm talking about from a, from a drainage or a . . .

Carlisle: Yeah. No, I would agree with that. But, to me, um, again, in the sites that we're proposing to create–full-basement walkouts and so forth–we're gonna have, not only are we gonna have, we're gonna have drain tile that we can gravity out as per the instructions here too. So, I think those sites will be successful also. You know what I mean?

Postler: Right.

Carlisle: Okay. So, whatever. I just, hopefully, I just want to make sure . . . I mean I've read it multiple times, but I just, hopefully it's clear enough that we can . . . And then the other thing

I'm concerned about, obviously, is that, yeah, we can't sink piezometers and wait seven years. We all know that can't work.

Sternberg: Right.

Carlisle: I mean, we had to rely on somebody, then get it done and move forward, and come up with good information. And, like Jason said, we're still going to use common sense and surface drainage and all those other things. I understand that. We don't want to build, you know, put basements where they shouldn't be.

Sternberg: Right.

Carlisle: But we don't want 'em up here either, so . . .

Sternberg: Right. I agree with you.

Postler: So, I'm guessing you're not going to go the other direction, and if your results determine that the elevation needs to be higher than three feet above mottled?

Carlisle: We're going to have to follow the rules if we move forward. You know, that's the thing, I guess I just, but I just . . .

Postler: This language is an attempt to lower it, obviously.

Carlisle: Yeah. I understand that.

Postler: But if the results come back in the other direction, I mean, I'm assuming you're . . .

Carlisle: Yeah. I mean you can't have it both ways. I understand that.

Postler: . . . you're not going to want to . . .

Carlisle: Yeah. It's just um, I just hope that, 'cause I haven't done this before, that, you know, we can put 'em in, get 'em read by a, an engineer, and, and move forward in a timely manner. Because we can't wait a year, we can't, you know, it just doesn't work. And I don't, I guess it sounds like Jason has done this with other companies, and that's what they've done. They have moved projects along by doing this.

Postler: Yeah. Most of them, like, they said they use four feet above what they determine the elevation is. So we'll see how that relates to three feet above mottled soil. Make a call.

Carlisle: Yeah. Yeah.

Sternberg: I have a question for you. How long, you know, the seven years is obviously too long, how long do you guys normally, wait, you know, for the readings. I mean, what's your length of time?

Rud: Well, when they're initially sunk you get readings right as soon as they're installed, and then you set up a program with the engineer as to how often they're going to go back and continue to read them and monitor 'em. But we'll get initial readings as soon as they're installed, so we have that information. And, we'll probably start to use that information for our initial design, to start to get a feel of where the site's at.

Sternberg: Sure.

Rud: But, under six months.

Sternberg: Under six months?

Rud: Under six months. Yup. Yup. Uh, we've solicited two estimates from two different people, and we've kind of put it on hold, just not knowing what was going to happen here. We didn't want to waste Tom's money, and have that done, but we do want to do it sooner than later. 'Cause we . . . Yeah.

Postler: I haven't done this yet, but we do have relationships with AET and Braun. I can call them and see what they recommend for a period.

Rud: Yeah, which, we work with them as well, so . . .

Sternberg: It's interesting.

Carlisle: So, Mr. Engineer, Dennis, you, you, is your firm working, doing this in other cities or townships right now, do you know? Are you, are you doing, um any, I mean, like Ham Lake or some of the surrounding areas?

Postler: Not right now, no.

Carlisle: Okay. Okay.

Postler: As close to here, White Bear Township's the closest. They don't have the similar, quite the same issues.

Carlisle: Okay.

Mursko: I think the property that you're working with though is one of the highest and driest areas that we have.

Carlisle: Yeah, no, I agree.

Mursko: I mean, you know, what we're looking at. I don't think we're looking at a marginal area here.

Carlisle: Right. No.

Mursko: So, if we were gonna, I mean, if this was our first venture, this would be the one I'd pick, because this is the one that, you know, has been solid.

Rud: Okay. Thank you.

Sternberg: Thank you. Anyone else from the public that'd like to speak? Okay, I'm going to close the hearing with the right to reopen if it becomes necessary.

Hearing closed at 9:47 p.m.

Respectfully Submitted:

Karen Boland, Recording Secretary