



CITY OF LAKE OSWEGO

Development Review Commission Minutes

Monday, April 2, 2018

The Commissioners convened at 7:00 p.m. in the Council Chamber of City Hall, 380 A Avenue.

Members present: Chair David Poulson, Vice Chair Brent Ahrend, Jason Frankel, Jeff Shearer, Nick Shur and Kirk Smith

Members absent: Paden Prichard

Staff present: Jessica Numanoglu, Planning Manager; Leslie Hamilton, Senior Planner; Evan Boone, Deputy City Attorney; Alissa Maxwell, City Stormwater Consultant; Erica Rooney, City Engineer; and Janice Bader, Administrative Support.

COUNCIL UPDATE

Councilor Theresa Kohlhoff briefly presented the results of a study session on annexation. She referred to a fourteen-page Council report containing specific comments and provided findings and recommendations from that report, including:

- Piecemeal annexations on a property-by-property basis is very inefficient and costly, averaging \$140,000 per year.
- Cost of road repair of areas not in the City is not insubstantial.
- Recommendation to initiate an island annexation of Lake Forest over a 3- to 10-year period. Immediately implement annexation of commercial properties on Bangy Road while residential areas are phased in.
- Explore ways to reduce the financial burden of transferring to the municipal sewer system.
- Discontinue piecemeal annexations in Rosewood.
- Eliminate from further consideration annexing Birdshill and Skylands.
- Consider phasing out privileges of City residency for non-city residents of properties that will not be part of the City of Lake Oswego.

MINUTES

Mr. Ahrend **moved** to approve the February 28, 2018 minutes with a change to page 6 regarding a motion on AP 18-01. The draft minutes state that the motion passed 5:0 but should read 6:1. Mr. Smith **seconded** the motion and it **passed** 5:0 with one recusal.

Mr. Ahrend **moved** to approve the March 5, 2018 meeting minutes as written. Mr. Smith **seconded** the motion and it **passed** 5:0 with one recusal.

FINDINGS

LU 16-0063, a request by Blue Dog Properties for approval of a Development Review Permit and one Design Variance for a mixed-use development, and the removal of eight trees. The Design Variance is to the Building Orientation standard in the Lake Grove Village Overlay District. The site is located at 15948 Quarry Road (Tax Lot Reference 21E08CB01200). Staff coordinator is Leslie Hamilton, Senior Planner.

Mr. Ahrend sought clarification regarding condition A(13) of the staff report. Condition A(13) requires that prior to issue of any grading or building permit, the applicant shall submit roof material samples to the satisfaction of staff that show compliance with the LOC. Mr. Ahrend suggested that the requirement (13) better fit under Condition B (Prior to final building permit inspection, the applicant shall...). Jessica Numanoglu suggested removing condition A(13) and inserting a new condition B(8) with the same text under existing requirement A(13).

With the discussed changes, Mr. Ahrend **moved** to approve the findings for LU 16-0063. Mr. Smith **seconded** the motion and it **passed** 5:1.

LU 17-0076, a request by Charles F. Breuer Trust for approval of major variances and removal of one tree in order to construct a new single-family dwelling:

- Reduce the required 5-foot west side yard setback to 4 feet;
- Reduce the required 20-foot street side yard setback to 4 feet;
- Reduce the required 30-foot rear yard setback to 27.5 feet;
- Increase the maximum lot coverage of 25% to 37.15%;
- Allow wall projections into the side yard setback plane along the west property line; and
- Allow wall projections into the side yard setback plane along South Shore Boulevard.

The site is located at 3989 West Bay Road (Tax Lot Reference 21E17BB03700). Staff coordinator is Evan Fransted, Associate Planner.

Mr. Smith noted that the final finding has him listed as absent rather than recused. He made a request to change a staff notation. The document signed tonight will have Mr. Smith listed as recused.

Mr. Ahrend **moved** to approve the findings of LU 17-0076. Mr. Shearer **seconded** the motion and it **passed** 5:1 with one abstention.

PUBLIC HEARING

LU 17-0065, a request by Ottbone Investments for approval of a two-parcel minor partition, including one flag lot, and the removal of 14 trees.

The site is located at 1923 Mapleleaf Court (21E16BA03002 and 4402). Staff coordinator is Leslie Hamilton, Senior Planner.

Evan Boone, Deputy City Attorney gave an overview of the public hearing process.

The DRC members stated their declarations of no bias, no conflicts of interest, nor ex-parte contacts. Mr. Ahrend, Mr. Shearer and Mr. Smith stated they individually visited the site. No one challenged the DRC's right to hear the application.

Mr. Boone noted that this is a new proposal and, as such, should be reviewed on the merits of the present application and information.

Staff Report

Leslie Hamilton, Senior Planner referenced a staff report describing the new proposal along with some historical perspective. This is essentially the same request reviewed by the DRC in October and November 2017. The new proposal contains revised stormwater and slope analysis resulting from those meetings. Two new letters in opposition were received by staff, G200 and G201. Ms. Hamilton presented via PowerPoint an overview of the proposal.

Staff recommended approval subject to conditions identified in the March 9, 2018 report.

Questions of Staff

Mr. Shur inquired about geotechnical report recommendations and whether they are listed in the original document. Ms. Hamilton replied that the document is contained in the geotechnical report section of the packet (starts on page 83) and construction recommendations start on page 92 of the packet or page 10 of Exhibit F(6).

Mr. Ahrend asked staff if they had a chance to review exhibit G-201 which includes the geotechnical review. Ms. Hamilton replied that she did route it to the City Engineer and stormwater consultant. Mr. Ahrend asked if they could provide commentary to the Commission.

Alissa Maxwell, City Stormwater Consultant, noted one thing that changed with the new submittal is the way the applicant proposes to handle stormwater. The prior proposal was relying on a drywell at the north end of the lot at the base of a slope as a means of infiltrating stormwater. The new proposal locates a drywell at the south end (uphill side of the driveway). The new drywell will be picking up a lot of the impervious area from the access lane. Applicant proposes a trench drain to pull water back to the front of lot. This reduces the amount of impervious surface that the rain garden would need to manage for the 10-year storm. The drywell at the north end of the lot is no longer used to meet stormwater requirements and is there only as a redundant system. Exhibit G-201 contains several comments about the evaluation of the north drywell. From a regulatory standpoint, the City is looking at the raingarden at the base of the driveway. There is some discrepancy regarding the geotechnical report on what an appropriate setback would be for a facility on a slope. The geotechnical report submitted by the applicant states the setbacks as ten feet from building lines and five feet from a property line. The geotechnical report submitted in Exhibit G-201 suggests setbacks be measured from the top of the slope rather than a setback line. The City's Stormwater Manual is not clear whether the setback be measured at the base or top of slope. Rather, it states that the setback be determined by a geotechnical engineer.

Chair Poulson sought clarification that Ms. Maxwell was referring to the rain garden. Ms. Maxwell replied yes, because the rain garden is the significant infiltration component. It would also apply to the proposed south end dry well.

Mr. Ahrend asked whether the rain garden would be lined. Ms. Maxwell replied that it would not be lined. They are using it to infiltrate up to a 10-year storm.

Mr. Ahrend inquired about how some of the testing meets the City stormwater manual requirements. Ms. Maxwell mentioned that a number of infiltration tests were applied to the site and the proposed design applies a safety factor of two, which is deemed adequate.

Mr. Smith inquired what the stormwater manual states regarding the time length of testing. Ms. Maxwell replied that the stormwater manual requires three tests and to take the infiltration rate from the third test so that the surrounding soil has had time to be saturated. This is the procedure that was followed for the proposed project. The manual does not require long duration testing, but does ask those conducting the test to identify when the rate stabilizes.

Referring to a comment, Mr. Shearer sought clarification whether a pit test should have been conducted instead of an augur test. Ms. Maxwell replied that the manual is not specific – leaving it up to the

geotechnical engineer performing the test to determine what they deem to be appropriate and adequate.

Chair Poulson referenced a review comment recommendation Item #1 in Exhibit G-201 where it notes that the City Code states that design and construction of a project will not cause erosion and land slippage. He expressed that there is legitimate concern that putting the redundant drywell near the property line could indeed cause such erosion. Ms. Maxwell acknowledged that there is a difference of opinion between the geotechnical information received in the application and Exhibit G-201. City staff performed its review based on information received and that report said that the site was adequate for infiltration. The comment in Exhibit G-201 recommends otherwise, so there is a conundrum.

Mr. Shearer had a follow-up question, noting that if a conundrum exists, how the staff should address it. Ms. Maxwell replied that staff reviews the application based on geotechnical findings. The geotechnical engineer signing the report is responsible for the recommendations. The design engineer will be following those recommendations. City staff is not in a position, when assessing land use feasibility, to be making geotechnical evaluations. Instead, staff looks to whether the professionals making the recommendations are following them. She said that is what the code requires staff to do.

Mr. Shearer followed, clarifying what is being said is that City staff have no recommendation. The City recommended conditions of approval that infiltration facilities be located subject to recommendations of a geotechnical engineer. That report identified setbacks as being appropriate for this lot.

Applicant

Read Stapleton, Land Use Planner with DOWL, representing Sean Foushee, Elite Homes, provided information on the stormwater issues raised by neighbors. Accompanying him was Bruce Goldson, Theta Engineering, attending to answer questions specific to the engineering component of the proposal.

In presenting specific design updates to the proposal, Mr. Stapleton provided a couple of PowerPoint slides that focused on how stormwater will be managed as conservatively as possible and address concerns raised during previous hearings.

- First, the team looked at the ability to capture as much of the storm drainage from the driveway to the new house as possible and route back to Mapleleaf Court via a trench drain located on the downslope of the crest in the driveway that would redirect the flow back to a drywell at the base of the driveway.
- The second feature presented was to ensure test results are as conservative as possible with a trench test pit designed for a 10-year event, and applied a safety factor of two (by dividing the observed infiltration rate by 2) to come up with a facility that meets code. They also added an additional drywell at the rear of the proposed lot as a secondary, redundant facility to accommodate any additional flow that would occur in any event that would exceed the 10-year design event.

Mr. Stapleton addressed a couple of questions raised earlier during the meeting. Regarding the question about augur vs. trench test pit, the augur pit was at the secondary facility. The trench pit was dug at the primary facility. The comment about land slippage applies to slopes that exceed 50 percent – none of which apply to the proposal.

Questions of Applicant

Mr. Ahrend sought clarification on how the safety factor of two was calculated and asked at what rate the project was designed to for infiltration. Mr. Goldson stated that they used three different rates, each divided by 2: one at the rain garden, one at the lower end of the site, and the third up at the driveway.

Mr. Ahrend noted the new proposal appears to have a steeper slope compared to the prior driveway alignment (20 percent compared to the previous 14 percent). Mr. Goldson replied that they based modifications on a re-survey of the site to verify contours were correct, and then modified the driveway so that it better fits the ground.

Mr. Ahrend noted a cross-section that suggested a drop-off and wanted clarification that the drop-off will be built up and not cut down. Mr. Goldson confirmed that it will be a fill section. A cross slope to the west neighbor will be protected to manage erosion.

Mr. Shearer questioned how deep the water must go to be lower than adjacent neighbors' basements. Mr. Goldson replied that it would not be practical; noting that 50 percent of homes in Lake Oswego are likely downhill from the street based on general terrain. Any development that occurs is going to be below the grade, including basements. Mr. Stapleton contributed to the discussion noting that the question likely related to the drywell located in the northwest. He conveyed that the drywell is a redundant system and would be rarely be used.

Mr. Shearer reiterated that he wants to know where the water is going to go given the surrounding terrain. Mr. Goldson replied that all impervious surfaces will be designed to direct water to the rain garden. Here, gravity will take over and send most of the water downward rather than laterally through hard clay soil.

Mr. Poulson inquired what happens if debris or sediment were to clog the overflow pipe causing failure. Mr. Goldson mentioned that the rain garden is designed to infiltrate 2 inches of water an hour. The system will require regular maintenance and monitoring, such as checking to see if the redundant drywell is capturing excess water. If so, then the system would need to be cleaned of debris.

Public Testimony

In Support

None

In Opposition

Eric J. TenBrook, attorney, Black Helterline, LLP, representing Nelson Rutherford, introduced Troy Hull, geotechnical engineer, Earth Engineers, who provide the EEI report attached to the letter submitted. The City Engineer indicated that she wanted to defer to the applicant but the DRC's standard as decision makers is that findings to support the application are needed that ensure applicable criteria are met. With respect to tree removal, the argument is to defer to the building permit phase, yet the applicant has shown the potential footprint of a house, talked about stormwater impacts, setbacks, etc., yet excludes discussion of tree stands and slope stability. Mr. TenBrook's argument is that tree stands and slope stability should be discussed.

Mr. Hull discussed the findings of a report he drafted dated March 30, 2018.

- Applicant's report appeared to not acknowledge impacts to adjacent property owners. He suggests follow-up to consider steep slopes that lead down to adjacent properties.
- Infiltration testing should be done at the depth of the infiltration system. Testing for the rain garden appears to have been done at 8 feet, which would appear low. Is the rain garden actually going to dispose collected water down at eight feet where the testing was done?
- Overflow drywell at north end of property raises some concerns. Stormwater systems do age and don't function well in the long-term. It needs to meet proper design standards.
- A PIT test does give a more reliable result and should be done for this proposal
- Typically, testing should go longer than a few hours

Mr. Shur asked if the applicant would need to remove the clay soil on site before placing footings. Mr. Hull replied that his focus is on stormwater and not getting into what the buildings should be supported on.

Mr. Poulson asked if Mr. Hull assessed if the redundant drywall would create a slope stability problem if it were utilized. Mr. Hull replied that he did not. To do so would require poking holes in the ground, modeling the soil conditions, and running through a computer modeling program. A slope beyond 50 percent (2:1) renders an investigation of slope stability. Applicant's property appears to be shallower than 2:1. In reply to a follow-up question, Mr. Hull stated that a risk exists that the redundant drywall could potentially have an impact on the slope and downhill basements if it were ever utilized. He concluded that it struck him as unusual that the redundant drywell would be placed directly above an adjacent property dwelling with a basement.

Saskia and Mike Magner expressed concern that the project may be approved despite the fact that it does not adhere to present City ordinances. Ms. Magner cited the Lake Oswego Storm Management Manual Number 5 where it states that the city requires that the top of the drywell must be lower than the floor elevation of basements in immediately adjacent buildings. The proposal does not abide by this regulation. She expressed worry about the ramification of this project proceeding as proposed and how it could impact her property. She concluded by asking members of the DRC to reconsider the proposal as currently presented.

Shamina Campbell began by pointing out that the applicant has not provided the City with an analysis of the true impact of tree removal. She challenged the accuracy of the applicant's claim that only 14 trees will be removed, given that plans show the footprint of the potential house will remove even more trees. We are concerned that removal of trees will cause risk of slope instability and tree stand integrity in the neighborhood. The applicant has not yet adequately explained what the plan is to protect against those risks. She referenced a guidebook from Oregon State University Extension Services, which addresses best management practices (BMPs) for tree protection on construction and development sites. The document notes that developers should focus on protecting remnant forestlands. She expressed her belief that the Lake Oswego Tree Permit Ordinance also incorporates some of the BMPs addressed in this guide. She asked that the Commission consider the impact that this proposed development will have on remnant tree stands in the neighborhood, not only on the property but on adjacent properties as well. She further requested that the City require the applicant to provide an impact analysis on slope and tree stand integrity resulting from tree removal, including trees removed when the house is constructed. Noting some of the previous discussion, she expressed concern about the proposal to reroute water to the south side of the property, which would go downhill into her already saturated backyard.

Rebuttal

Mr. Goldson said that the rain garden does go to a depth of approximately 8 feet so they are getting to the level that was tested. The redundant drywell can be eliminated since it is not necessary. The reason for its location is that there are nuances in the storm code that state you cannot have a drywell steeper than a certain level. This is the only area on the site that meets those requirements.

Mr. Foushee addressed the tree issue, noting that the 14 trees identified for removal are for the development portion of the site. He cannot accurately determine which additional trees would need removal until he knows the final placement and size of the dwelling footprint. The footprint displayed in the presentation is conceptual and intended to provide as accurate a depiction as possible of the potential tree removal. He reminded members of the Commission that this is one stage of the process toward getting the site developed.

Noting that soil composition at the bottom of the drain has some clay, Mr. Shearer asked how water flowing downhill would be managed given that clay does not infiltrate well. Mr. Goldson responded that

the drain rock is sized with a large storage area to accommodate the low infiltration rate. Measures will be taken to ensure the drain rock stays relatively clean from debris.

Evan Boone asked if anyone attending had any additional written testimony. None was presented.

Deliberation

The applicant waived their right to additional time to submit a final written argument. Chair Poulson opened deliberations.

Mr. Shur noted most sites remaining in the city available for development are all difficult due to terrain or other hazards.

Chair Poulson reminded his fellow members that the purpose of the meeting is to determine whether to grant approval of the minor partition, not the design of the house, which would be reviewed during the building permit stage later.

Using page 11 of the staff report as a reference, Mr. Ahrend noted that stormwater management is the main issue concerning the application. The question for the DRC: has the applicant shown that they can manage the stormwater for the development of the lot that they are creating? They do not necessarily have to show the exact design at this conceptual phase; just enough to show that it could work. If the Commission approves the partition of the lot then the applicant would do their final design. Acknowledging that it is always difficult to have dueling experts, typically he defers to the applicant because they are the ones responsible and liable for their design. Consideration will be given to an opponent if they can demonstrate that something has been done incorrectly or that the proposal will not work. Mr. Ahrend expressed concern with the drywell for overflow in the larger storm events or if the rain garden fails. Then the question is what would be the impacts on property downhill. He cited as his source of concern Mr. Hulls' reference to the Stormwater Management Manual requiring that the top of a drywell must be lower than the floor elevation of basements in immediately adjacent buildings.

Acknowledging that the Code usually works for most conditions, Chair Poulson noted this time it might require looking at all conditions that may impact the site. If the region incurred two weeks straight of a one-year storm, how fast will the system be able to infiltrate? After ten years, these systems tend to degrade in their functionality. His concern is that the redundant drywell is an issue. When the rain garden fails, it will overflow into the pipe and go to the redundant drywell and no one will likely know it happened. He would prefer to remove the redundant drywell completely and keep the rain garden. If it fails, the property owner would be forced to repair it.

Chair Poulson reiterated that the DRC task tonight is to refer to the code, which allows the property owner to maintain his or her own system. Nonetheless, he has concerns in this case due to water potentially overflowing to the redundant drywell and no one would know what is happening until it was too late. That said, he also noted that the developer is essentially trying to dispose of 100 percent of the ten-year storm that falls on all developed impervious surfaces. If the property were never developed and left in its natural state, there would still be water that runs off the hillside. Therefore, the proposed development could potentially reduce surface runoff onto neighboring properties if the system being proposed works as designed.

Mr. Ahrend requested staff interpretation of how the Stormwater Management Manual addresses the top of the drywell in relation to immediate adjacent buildings. In reply, Ms. Maxwell mentioned that the evaluation criteria applies to the primary facility (rain garden) that handles the design event (10-year storm), not the secondary, redundant facility (drywell).

Mr. Smith questioned whether the rain garden should be below that basement as well as the drywell. Ms. Maxwell replied that the standard only applies to the drywell.

Mr. Poulson forwarded consideration of having drywells in place of rain gardens. Ms. Maxwell replied that drywells can only infiltrate in a narrow vertical space whereas a rain garden enables a wider

infiltration zone. Mr. Poulson followed by suggesting for consideration a cut-off trench below the house running along the contour filled with rock. Water flowing into a trench distributes and if it bubbles out, it does so at a uniform sheet-flow rate. Ms. Maxwell replied that each facility design has limits based on slope steepness. For example, rain gardens cannot be on a slope beyond 25 percent, the site in question is 23 percent. Chair Poulson continued suggesting that the DRC should be looking for ways to maximize the natural hydrological conditions as best as possible. A trench could be one option by converting an impervious surface back to a sheet flow condition where the sheet flow intensity is only the amount that was the pre-developed condition. If it failed, it would fail in a sheet coming out of the trench.

Acknowledging Chair Poulson's concern over one not being aware of a failing rain garden until it is too late, Mr. Ahrend questioned if there is a way that the homeowner could know that a rain garden is failing. That would be the ideal point at which to make necessary repairs before water goes to the overflow pipe and to the redundant drywell. Chair Poulson responded that the system will require continual inspection and upkeep to ensure it is functioning properly.

Chair Poulson opined that the proposed rain garden will eventually fail.

Mr. Shearer expressed concern about the project, sharing his experience growing up in a house located downhill that flooded.

Mr. Shearer addressed the seepage and movement of soil downstream to adjacent properties. No one has performed the analysis, but he would feel better if he knew that it was stable.

Chair Poulson suggested leaving the proposed system as is with a condition that requires a geotechnical analysis, reviewed by the City, of the slope stability below where the drywell is located.

Mr. Smith suspects that the water will go on the neighbor's land. He is also not convinced that the proposal meets the code.

Mr. Ahrend sought City staff input on the proposed condition.

Mr. Boone addressed two issues. First, the City should judge the application based on whether it meets the standards and criteria. However, liability of property owner does not end by meeting the City codes and criteria. There is additional common law that a person is supposed to manage their stormwater. Council has established code responsibilities for looking at stormwater but cannot guarantee that no water will leave a site. Secondly, regarding the slippage issue, he is not aware of a condition requiring a soils report showing adequate soil stability is enough of a standard in the conditions of approval. We do not know what the feasibility standard is and it is vague. Therefore, this would likely need to come back to the Commission for review because the standard is vague.

Jessica Numanoglu, Planning Manager, clarified that the pertinent section of the Hillside Protection standard in the code applies to lands over 50 percent slope. Where the drywell is located is not over 50 percent slope so that particular code section does not apply. The drywell is not proposed in an area that is greater than 50 percent slope. Ms. Hamilton cited page 9 of the Exhibit that shows grades on adjacent sites that are over 50 percent. Chair Poulson cited a part of the report referencing slopes over 50 percent. Acknowledging the area of the proposed drywell is relatively flat, Chair Poulson questioned why the definition of "over" does not apply to downhill properties adjacent to the proposed drywell that are steeper with some areas having a greater than 50 percent slope. Mr. Ahrend noted that part of the issue is that the DRC does not have all the information preferable to make a sound decision. He mentioned, for example, a cross section of the proposed house through the drywell over to the neighbors' house could enable members to better assess the bottom of the drywell in relation to the neighboring basement. Chair Poulson opined that there is no way to know when the rain garden fails. Mr. Ahrend stated that the drywell is an extra measure of safety in case of overflow of the rain garden.

Chair Poulson suggested a motion to continue and request that the applicant provide more supporting information about this particular issue. Mr. Ahrend replied the standards do not apply to the drywell because it is not the primary facility. He would like to have some way to let the property owner know when the drywell is in use and alert them to go check the rain garden to ensure that it is functioning properly. Mr. Ahrend explained that eventual failure of the rain garden would likely be gradual rather than sudden. Mr. Ahrend asked staff if there is a way to know when the drywell is being used. Ms. Maxwell replied that it would be part of an operation and maintenance plan. In other words, the onus is on the property owner to inspect it on a regular basis. There is no trigger or alarm system to alert the property owner that something is wrong.

Mr. Poulson moved to approve LU 17-0065 as conditioned by staff with the additional condition that the redundant drywell and the overflow pipe is removed. There was no second to the motion. Motion died for lack of a second.

Mr. Ahrend moved to approve LU 17-0065 as conditioned by staff. There was no second to the motion. Motion died for lack of a second.

Mr. Shearer mentioned that there are a lot of items in the proposal that are between the lines. The developer has followed the rules and done what was asked of them. Acknowledging that there are a number of things that the Commission does not have a good feeling about, a motion can be made to deny it or to see if there is something the applicant and staff can work on to alleviate current doubts.

Mr. Boone stated that if the Commission wants to list their doubts, or what is deemed necessary in order to meet the Code, the applicant can either decide to ask for a continuance in order to provide that information, or the DRC can vote to deny the proposal if code-required information is not presented.

Mr. Ahrend questioned what that code required information would be, as it is not clear. The applicant has met the current code. Acknowledging DRC concerns regarding impact to neighbors, a decision needs to be based on the code.

Mr. Poulson brought the discussion back to LOC 50.06.006, which states design and construction of the project will not cause erosion or land slippage. His interpretation of the code section differs from the staff.

Mr. Boone cited the pertinent section of the Code. In sub-section (vi), it states that land over 50% undisturbed slopes shall be developed only where density transfer is not feasible. The development will provide that design and construction of the project will not cause erosion or land slippage. Staff interpretation is based upon the first clause as contrasted with Sub-Section (iv) which discusses lands on un-retained undisturbed slopes in excess of 12%. One cannot read just one sentence in the section, one must read the context. The next interpretation then is "What is developing land?" Staff interprets that as the part of the land being developed. If the commission disagrees, then staff will need to draft findings relative to the code text.

Ms. Numanoglu cited the operative phrase in the code section is "undisturbed slope." If it has previously been disturbed it does not apply. There is a retaining wall. There is no indication whether the slope on adjacent property is undisturbed or not.

Mr. Ahrend gave his opinion and an overview of slopes on the neighboring properties.

Mr. Boone interpreted 50.06.006 (2), Subsection (iv) and (vi) via PowerPoint. Ms. Numanoglu provided a Code definition of "undisturbed slopes" as:

"Slopes, or portions of slopes, that have not been previously altered from the natural topography for slope stability, i.e., re-contoured, graded, and/or terraced, and the altered slope was either performed in accordance with or subsequently approved by a licensed geotechnical engineer, registered civil engineer experienced in soils engineering, or licensed engineering geologist. Undisturbed slopes consist of natural topography, vegetation, and soils."

This Code section applies to development on hillsides.

Mr. Shur requested a definition of “density transfer.” Ms. Numanoglu explained if you had areas on a site that had 50 percent slope, then you would be able to transfer the amount of density that you would have had on that portion of the site to the other portion that is not at 50 percent. This provision would not apply in this case because there are not any areas that are over 50 percent slope on the site. Ms. Hamilton said that there is an effective density of 2 lots on this site.

Mr. Poulson commented that there seems to be nothing available in the Code to direct a decision that there is a potential for the facility causing slope instability downstream. Ms. Maxwell said the Code doesn’t address that and referenced her findings table as addressing these provisions in the Code (page 112 of the packet) in the “findings” column, where it states that proposed infiltration based stormwater facilities are located on or near slopes greater than 15 percent. The Stormwater Manual, Section 3.4.3 includes a requirement for placing infiltration facilities stating:

“A geotechnical report is required to determine setbacks for infiltration facilities on slopes ≥ 15 percent or within 200 feet of a steep slope hazard area or landslide hazard area.”

The Stormwater Manual does not identify what the setbacks should be on those slopes. Because of the variation in slope, a geotechnical report is required that would identify what the setback should be for those infiltration facilities. In this case, the applicant’s geotechnical report recommends that the appropriate setbacks should be 5 feet from property lines for drywells and 10 feet from the house for rain gardens. The manual makes no statement regarding the distance the infiltration facilities must be set back from the top of the slope. Instead, the field memo says “RSS can recommend the primary and overflow areas for infiltration on the site will not increase slope instability of the lot.”

Mr. Ahrend referred to page 10 of the RSS (page 92 of packet) where it addresses the infiltration testing and slope setbacks. His conclusion is that the proposal meets the code and the geotechnical engineer has made the recommendation. What more can we require?

Mr. Poulson offered that it is consistent with what the City says. Mr. Ahrend mentioned that City staff is relying on the applicant, have reviewed information that opponents have provided, and the goal for the applicant is to show that the standards can be met. He further reminded that this is not the final design and that the Commission will likely have the opportunity to review a more refined proposal.

Mr. Ahrend opined the applicant has met the code. Chair Poulson concluded that the proposal is consistent with the code, the geotechnical engineer is willing to take responsibility, and there will be opportunities to refine the final design. Therefore, he is willing to go along.

Mr. Shearer asked Chair Poulson if he believes the system can handle the flow as currently designed. In his opinion as a professional engineer, Chair Poulson replied that he believes the stormwater system will fail quickly.

Mr. Smith provided his view as a lawyer that the proposal does not meet the code based on the opinion of Chair Poulson in his capacity as a professional engineer that the system will not take care of the water and will fail. Chair Poulson reminded the Commission that is his opinion and not necessarily the opinion of other engineers in the room.

Mr. Ahrend observed that should the Commission deny the applicant, the DRC would need to provide the code-based reasons why so staff can write the findings that support the denial. His perspective suggests that the proposal meets the code. Mr. Smith expressed conflict between Mr. Poulson’s professional opinion and the code requirements.

Mr. Ahrend stated that the focus should be on the rain garden, which is consistent with the code. They have provided the backup system just in case. Chair Poulson reminded Mr. Ahrend that the backup system is the source of his concern. Therefore, he suggested that Mr. Ahrend should support the motion he forwarded to approve the application without the backup system.

Mr. Ahrend said he can support Chair Poulson's proposal to take out the redundant drywell. However, his preference would be to keep the backup system in place. Mr. Ahrend offered to second the motion.

Mr. Shur is not convinced the design will work. He does not see a property owner maintaining the rain garden. He lives in a house where the basement floods from a property situated uphill.

Mr. Frankel opined that there are many opinions. He would like to find substantive reasons to approve the application.

Mr. Ahrend **moved** to approve the LU 17-0065 with the condition that the drywell on the north end of the property not be allowed. Mr. Frankel **seconded** the motion. Mr. Shearer asked for clarification. Mr. Ahrend clarified the drywell on the north end of the property not be allowed.

Mr. Boone asked for the applicant to respond to the proposed condition prior to the Commission's vote. There was a question from the audience about the legal procedure taking place.

Applicant had no comment.

Mr. Poulson stated that his job is to side with the code, not his own professional opinion.

The vote was split 3:3, therefore the motion **did not pass**.

The DRC explored options to continue the hearing or get another vote.

Mr. Shearer prefers to have the redundant drywell in place, which is why he voted no.

Mr. Smith **moved** to deny the application because the applicant has not demonstrated, based upon LOC Article 38.25 of the Stormwater Management Code, that the capacity, type, location, feasibility and land area required of the proposed stormwater management system and stormwater disposal facilities are provided. Secondly, as submitted, the proposal does not meet the City of Lake Oswego Stormwater Management Manual provision that the top of the drywell must be lower than the floor elevation of the basements in the immediate adjacent buildings.

Mr. Shur proposed adding Section 50.06.006, subsection 3 to Mr. Smith's motion. Mr. Smith accepted the addition to the motion. Mr. Shur **seconded** the motion and the motion **failed** 2:4.

Mr. Shearer voted no because that section of the Code does not apply the way the motion was stated. The proposed drywell site is flat (not over 50 percent).

DRC members agreed to take a five-minute break.

Referring to page 92 of the packet, Mr. Shearer requested staff input on whether they knew of any section in the Code that discusses rain gardens and slippage downstream from the rain garden. His question is based on his worry about slippage of the bank further down from the rain garden.

Ms. Maxwell discussed the two places in the Code and Manual that would address the issue. The Manual requires that rain gardens cannot be on slopes greater than 25 percent. In this particular case, the slope is 23 percent. The Stormwater Manual Section 3.4.3 requires the geotechnical report to identify setbacks if you are in a slope greater than 15 percent. It refers to Section 50.06.006, part 2, of the Code where it requires a geotechnical engineer to identify setbacks in slopes greater than 15 percent. Mr. Shearer questioned how a 5-foot setback is going to prevent water from causing slippage down the hill. Ms. Maxwell responded that it is the professional opinion of the geotechnical engineer. The Code does not say the geotechnical engineer must identify the setback from the top or toe of slope – typically how a geotechnical engineer would identify the setback.

Ms. Rooney noted that there have been a lot comments tonight about the Code. The Code does not cover every scenario that could potentially exist. The Code is fairly ambiguous in terms of what "setback" means. Professional opinions will differ. As is, it meets the code.

Mr. Boone suggested that the Commission could find that there is no basis for picking the property line with regards to setback without some support as to how it affects the operation of the stormwater facility and its consequences.

Chair Poulson suggested that the requirement to establish a setback could be based either on how the drainage out of this drywell would affect an adjacent property or on how it would affect slope stability. Since it does not say which one, he would side with the storm drainage condition.

Mr. Shearer suggested adding a condition that the applicant has to provide a geotechnical reason for the setbacks for the drywell in terms of slope stability. Mr. Ahrend built upon the suggestion by adding that the applicant conduct an analysis considering the slope and location impacts on neighboring properties.

Mr. Ahrend noted that all the information the DRC has ends at the property line. He polled members of the DRC to gauge their willingness to approve the project if the applicant agrees to provide additional geotechnical information on adjacent properties if it concludes with a positive result. Fellow members of the Commission indicated agreement. Mr. Boone reviewed options for the Commission to come to a decision. The applicant could ask for a continuance to extend the 120-day time limit (currently July 9, 2018).

Mr. Foushee, the applicant, expressed reservations to supply additional geotechnical information. First, one Commission member is not in attendance. Hence, there is uncertainty how that member will vote after expending time and money on reports already submitted. The second concern centered on the scope of the additional report. Will he need to access neighboring properties? If so, what task will need to be performed and what information will need to be collected? He has provided ample information to the staff and Commission and believes he's met the code. He then stated he was confident that he can do the additional work and will submit it to the staff. Mr. Foushee asked if he would have to go on the neighbor's property. An option is to get an easement from the neighbors and put a storm line in.

Chair Poulson responded that the DRC would like the geotechnical report to provide information that will assure members of the Commission, not necessarily the neighbors, that the soil on adjacent properties will remain stable after placement of the infiltration facility.

Mr. Shearer encouraged Mr. Foushee to provide the additional information, or the DRC can deny and the case will then go to the City Council. Mr. Foushee questioned the level of information requested by the Commission as he is not clear on what is being asked.

Chair Poulson opined that the condition and cohesion of the soil is of concern to him. That is what the geotechnical engineer should address. Professional judgment should be used to determine what information will be provided.

Chair Poulson proposed continuing the hearing for another 30 days. Mr. Boone proposed giving the parties three weeks to submit materials by April 20, 2018, and rebuttal by April 27, 2018. That would give staff a week to submit recommendations to the DRC.

Mr. Smith **moved to continue the hearing to **May 7, 2018** for receipt of written geotechnical reports on impacts of slope stability beyond site boundaries to be due 5 pm on April 20, 2018 and any rebuttals due at 5 pm on April 27, 2018.** Mr. Shearer **seconded** the motion. The motion **passed 5:1**

ADJOURNMENT

Chair Poulson adjourned the meeting at 11:20 pm.

Respectfully submitted,

/s/

Janice Bader

Administrative Support