



(c) tree removal necessary to develop the parcel will likewise not undermine slope stability.

***a) Stormwater Management: The rain garden has been designed to manage the 10-year, 24-hour design storm event.***

Opponents argue that the Applicant has not complied with terms of the Stormwater Management Code (LOC Article 38.25) and the Lake Oswego Stormwater Management Manual (LOSWMM) because it has not designed a rain garden with an overflow discharge location. This is inaccurate.

The City staff reports have considered opponents' evidence and repeatedly found that the Applicant has met the applicable provisions of the Stormwater Management Code. *See* April 2, 2018 Staff Report; May 3, 2018 Staff Memorandum; May 17, 2018 Staff Memorandum.

Multiple experts (including the City's stormwater review engineer) have reviewed the application and concluded it, in fact, can meet Stormwater Management Code. The following expert reports have been submitted into the record:

1. Theta Preliminary Drainage Report, (March 6, 2018) (Exhibit F-5). A preliminary stormwater report was prepared by a registered engineer and found that a rain garden for the house coupled with part of the driveway is adequate in both quality and quantity for the 10-year storm event.
2. Brown and Caldwell Technical Memorandum (March 19, 2018) (Exhibit F-8). The City's hired contract stormwater review engineer to review the project for compliance with the Stormwater Management Code and the LOSWMM. This report in Attachment A provides a table with the requirements of the Stormwater Management Code, makes findings related to the Project and recommended conditions of approval which were incorporated into the Staff Report.
3. Brown and Caldwell Technical Memorandum (May 3, 2018) (Exhibit F-16). The City again hired its contract stormwater review engineer to evaluate opponent written comments and prepared a second report. This report again found that the requirements had been met and recommending conditions of approval.

Based on these expert reports, the City has repeatedly found "this standard is met." April 2, 2018 Staff Report, p. 16; May 3, 2018 Staff Memorandum; May 17, 2018 Staff Memorandum. Evaluation of whether the Project meets the Stormwater Management Code, is a technical evaluation that is only properly done by a licensed engineer. Opponents have not provided evidence by a qualified engineer to dispute that these requirements have been met and therefore the inquiry should end.

Even if the Commission considers opponents' assertion without an engineering analysis that the rain garden does not provide an adequate outlet to an approved discharge location, that assertion fails. The Manual recommends that rain gardens include overflows that outlet to an approved discharge location. LOSWMM p. 76. As provided in Brown and Caldwell Technical Memorandum, the overflow for a rain garden can be provided through a variety of methods, including a surface spillway to serve as an overflow that allows stormwater runoff to follow the

natural drainage pattern. Exhibit F-16, p. 2. The Applicant in its most recent submittals and reports has complied with this.

Finally, even if the Commission still finds that a surface spillway does not meet the LOSWMM requirements, Opponents erroneously assume the LOSWMM to constitute black letter law. It does not. Rather, the LOSWMM is an informational manual that the City uses for best practice management to administer the Stormwater Management Code. Specifically:

The City Manager shall administer this Code and *may* furnish *additional policy, criteria and information* including specifications and procedures for the proper implementation of the requirements of this Code. This information *includes the Lake Oswego Stormwater Management Manual (Manual)*.

The City Manager is delegated authority to adopt, revise, and update the Manual *as necessary*. The Manual may be modified from time to time, at the discretion of the City Manager, based on improvements in engineering, science, monitoring and local experience. *The manual shall describe the best management practices (BMPs) appropriate for use in the City.*

LOC 38.25.110 (emphasis added).

There is no dispute that the Applicant has met the requirements of the Stormwater Code. We again refer the Commission to Staff's analysis. Staff concluded as follows in its memorandum dated May 17:

The rain garden has been designed to fully manage the 10-year, 24-hour design storm, which would meet the requirements of the Stormwater Management Code and LOSWMM. The rain garden proposed for this site demonstrates that it is feasible for a rain garden to be designed with a surface spillway that allows overflows to follow the natural drainage pattern.

***b) Slope Stability: RSS Geotechnical Investigation Report, Addendum I, and Addendum II have shown the standards have been met.***

The Applicant has repeatedly demonstrated that it has met LOC 50.06.006.2.d, the standards for approval on undisturbed slopes. First, the Applicant submitted Rapid Soil Solutions' (RSS) August 31, 2017 Geotechnical Investigation Report (Exhibit F-6) and Addendum I (Exhibit F-12) and II (Exhibit F-14). This report evaluated surface conditions, regional geology, and subsurface conditions and made geotechnical design recommendations which were incorporated into the project. LOC 50.06.006.2.d has been met.

However, Opponents argue, without supporting evidence, that the evaluation criteria for slope stability have not been met. Exhibit G-204, p. 3. Opponents bring up the following: (1) the lack of mapped landslides does not sufficiently address whether or not a severe landslide hazard exists<sup>1</sup> and (2) no field investigation was completed on adjacent sites.

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<sup>1</sup> LOC 50.06.006.2.d.iii.1 prohibits (subject to exceptions) development "[w]here landslides have actually occurred, or where field investigation confirms the existence of a severe landslide hazard

Upon review of the LOC 50.06.006.2.d, these two considerations are not relevant and distract from the applicable criteria. First, even if a severe landslide hazard exists, development is allowed where a geotechnical engineer has certified methods of rendering the site safe for construction are feasible. Second, analysis is only required for the “given site.” LOC 50.06.006.2.d.iii.2.

LOC 50.06.006.2.d.iii.1 provides that, where there is a severe landslide hazard, development shall generally be prohibited. However, the next subsection provides the exception to prohibition: “Where a licensed geotechnical engineer . . . shall certify that methods of rendering a known hazard site safe for construction are feasible for *a given site*.”

The code does not require evaluation of the rest of the neighborhood, street, or neighbor’s site and for good reason. A code with such requirements would be unworkable and place an undue burden on the applicant. The Applicant has complied with LOC 50.06.006(2)(d)(iii), as shown by Rapid Solutions LLC’s Geotechnical Investigation Report, (Aug. 31, 2017 revised Feb. 12, 2018). A geotechnical evaluation for neighboring sites is not required by LOC 50.06.006(2)(d)(2).

Opponents also submitted a report by Earth Engineers, Inc. (EEI) bringing additional concerns related to RSS’s Geotechnical Investigation Report. RSS provided an “Addendum II” addressing each of these concerns. (Exhibit F-14). This included two additional slope stability reviews of the adjacent properties. *Id.* at p. 1. Slope stability standards have been met. *See* May 3, 2018 Staff Memorandum (“LU- 17-0065 complies with all applicable criteria and standards or can be made to comply through the imposition of conditions”).

***c) Tree Removal will not impact slope stability***

Opponents attempt to connect the slope stability issue with tree removal:

There is no analysis of the potential tree removal impacts that will be occasioned by such construction and there is no showing of how, with construction, the percentage of undisturbed slopes will actually meet LOC 50.06.006.2 requirements.

LOC 50.06.006.2, “Hillside Protection,” makes no reference to tree removal, which is of course governed by Code Article 55. In fact, as staff found, the application complies with code provisions governing slope stability and tree removal. At its May 21 meeting, the Commission determined that tree removal is not relevant to the slope stability criteria or approval of this application.

Again, the Applicant’s expert reports have shown compliance discrediting the Opponent’s unsupported assertions. Argument on slope stability without a qualified technical evaluation should not be considered.

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. . . .” Counsel assumes that the Applicant must take an exception. Nothing in the record, however, indicates that a landslide has “actually occurred” at the site or that field investigation has confirmed the existence of a severe landslide hazard. Accordingly, the Applicant need not establish an exception.

First, RSS's Geotechnical Investigation Report, Addendum II addresses slope stability as it relates to tree removal: "It is my understanding, any significant trees being removed, will have to be approved through the building permit process, but replacing the scrub trees and any additional trees needed to build the proposed home will have very little to no impact on the slope stability." p. 3.

Second, the only arborist to testify in this record, Teragan & Associates, Inc., evaluated the tree removal permit criteria, including soil stability, flow of surface waters, and erosion and found no significant impact:

Removal of the tree[s] will not have a significant negative impact on erosion, soil stability, flow of surface waters, protection of adjacent trees or existing windbreaks. An erosion control plan will be put in place to prevent erosion and protect soil stability during and after construction. Also, 53 trees to be retained at the site will continue to provide erosion control/soil stabilizing functions and the 11 mitigation trees to be planted will further prevent erosion control and stabilize soils. (Exhibit F-2, p. 3).

LOC 55.02.35 also provides that once a final decision has been rendered on the development permit, trees that have been approved for removal as part of that decision shall be subject to the verification permit process. The verification process will ensure that the trees approved for removal are properly identified for removal in the field and that the trees that were not approved for removal are not inadvertently removed. The Applicant understands through this process, it will comply with the condition of approval to submit a mitigation plan as it will be required to in order to obtain a tree removal permit pursuant to LOC 55.02.050.1.b.v.

## **CONCLUSION**

In conclusion, the Applicant agrees with the City planning staff recommendation that the Development Commission approve the project and believes that staff's proposed conditions help balance the interests of multiple stakeholders.