Teragan & Associates, Inc.
Arboricultural Consultants

MEMORANDUM

DATE: April 13, 2016

TO: Jesse Nemec (J.T. Smith Companies)

FROM: Todd Prager, ISA Board Certified Master Arborist

RE: Addendum to the Trillium Woods Apartments Tree Plan

Summary

Modified tree protection measures were discussed and agreed upon by City staff and the project team to provide additional protection for offsite trees at the Trillium Woods Apartments project. Three onsite trees identified for preservation may need to removed if the City and project arborist determine retention is not feasible during construction.

Background

Teragan & Associates, Inc. prepared the tree plan and several supplemental arborist reports for the Trillium Woods Apartments project. The reports described the existing trees located on and near the site, as well as recommendations for tree removal, preservation, mitigation, and protection during construction.

The City of Beaverton reviewed these reports and issued a recommendation for denial in their March 23, 2016 staff report to the Planning Commission. The denial was based on memorandums by Patrick Hoff, City Arborist, dated March 21 and 30, 2016 which stated that proposed protection measures for offsite trees were not adequate.

To address the City's concerns, the project team proposed to the Planning Commission at their March 30, 2016 hearing additional construction setback distances from the offsite trees. The project team also offered to meet with City staff to review the revised tree protection plan so that any additional concerns could be addressed in advanced of the April 27, 2016 hearing continuance.

The meeting between the project team and City staff to review and discuss the revised tree protection plan occurred on April 11, 2016.

Teragan & Associates, Inc.
3145 Westview Circle • Lake Oswego, OR 97034
Phone: 971.295.4835 • Fax: 503.697.1976
Email: todd@teragan.com • Website: teragan.com

The purpose of this report is to:

- Summarize the changes that have been made to the tree protection plan for the Trillium Woods Apartments project; and
- Address the outstanding tree related concerns discussed at the April 11, 2016 meeting with City staff.[1]

Offsite Tree Protection Changes

The offsite tree protection recommendations in our previous reports included setting tree protection fencing at a distance from the trees to be retained of six times (6x) their trunk diameters. For example, a tree with a 24-inch trunk diameter would have protection fencing set at a distance from the tree of at least 144-inches (12-feet).

While City staff agreed that a 6x tree protection setback is adequate, they expressed concern about the ability to limit impacts from excavation for building/retaining wall footings, erosion control, and construction access. City staff believed that at least one foot of excavation would be necessary for forms beyond the building/retaining wall footings. They also believed additional space would be necessary for erosion control measures at the outside edge of tree protection fencing. City staff did not approve of any temporary construction foot traffic in the tree protection zone, even if mitigated with a layer of wood chips over geotextile fabric.

Five Foot Buffer Beyond 6x Tree Protection Zone

To address the City's concerns, the project team modified the site plan using compact parking spaces and other changes to achieve a 6x plus five foot tree protection setback for the offsite trees. In other words, at least five additional feet of construction setback is now provided for the offsite trees as a buffer to the 6x tree protection zone. Project sheet number C229 details the changes to the tree protection zones.

The modified site plan adequately addresses the City concerns by allowing space for at least one foot of over-excavation for footings, another foot for erosion control outside the tree protection fencing, and an adequate corridor for construction foot traffic without the need to encroach into the 6x tree protection zone.

Minor Encroachment into Five Foot Buffer of Tree 2734

One 2.5 foot encroachment into the five foot buffer of tree 2734 was discussed with City staff during our April 11, 2016 meeting. The City and project team agreed that the reduced buffer will be adequate to avoid encroachment from over-excavation and erosion control into the 6x tree protection zone. Scaffolding and the foot traffic corridor can be reduced at this location to avoid any encroachment into the tree protection zone. Alternatively, the City may permit a slight encroachment into the 6x

[1] Note that the tree removal, preservation, mitigation, and protection recommendations in our previous reports shall continue to apply when consistent with the recommendations in this memorandum. In cases where there are conflicts, the recommendations in this memorandum shall apply.

tree protection zone of tree 2734 as long as root protection measures are implemented such as placement of 12-inches of wood chips over geotextile fabric.

Additional Root Protection Measures
Additional root protection measures will be implemented in the five foot buffer outside the 6x tree protection zone of offsite trees. These include using straw waddles to stake in the bottom portion of erosion control fencing rather than trenching in the fencing. Also, 12-inches of wood chips over geotextile fabric will be installed within the five foot buffer to prevent soil compaction and protect the trees' fine root systems from construction foot traffic. Finally, the project arborist will oversee excavation adjacent to the 6x tree protection zone to ensure structural roots are either protected in place or cut cleanly with sharp pruning equipment during excavation for the building/retaining wall footings.

Onsite Tree Protection Changes

While it is our intention to retain the onsite trees proposed for preservation in our previous reports, the project team and City staff identified three additional onsite trees that may need to be removed (trees 2588, 2691, and 2732). While a 6x tree protection zone is provided for all three trees, there is not enough space for the additional five foot buffer. The trees would only be removed if the City and project arborist determine that retention is not feasible.

If removed, the trees will be felled away from the trees to be retained and their stumps will be flush cut and/or surface ground rather than pulled with an excavator to protect the root systems of the trees to be retained. Their removal will also be mitigated as required by the Beaverton Development Code.

Conclusion

The modified protection measures outlined in this report were discussed and agreed upon by City staff and the project team to provide additional protection for offsite trees. Three onsite trees identified for preservation may need to removed if the City and project arborist determine retention is not feasible during construction.

Please contact me if you have questions, concerns, or need any additional information.

Sincerely,

Todd Prager
ISA Board Certified Master Arborist, WE-6723B
ISA Qualified Tree Risk Assessor
AICP, American Planning Association

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