

Memorandum

To: City of Lee's Summit**Date:** 9/16/2020**From:** Shawn Duke, Snyder & Associates, Inc.**RE:** Whispering Woods 2nd Plat Lots 34-50 Storm Water Drainage

This memorandum address the compliance of Whispering Woods 2nd plat with the approved storm water drainage study for Whispering Woods First Plat Lots 1-33 dated July 20, 2018 and with the preliminary storm water drainage study dated January 3, 2017.

Whispering Woods 2nd plat Lots 34-50 is located entirely in the Western basin as was discussed in the January 3, 2017 Storm Drainage Study. Therefore as previously noted in the studies the storm water detention requirements for this area has been waived for the project area due to the close proximity of the large flooding sources.

Water Quality for Lot 34-50 are provide with the extended wet detention facility that was constructed with the First Plat. The details of the design of the extended wet detention and accompany sediment forebay was include in the Whispering Woods First Plat Lot 1-33 Storm Water Drainage Study dated July 20, 2018.

Storm water drainage from the rear of lots 34-41 & lot 50 along with a section of Swan Creek Roads runoffs to the south undetained by the proposed underground storm sewer. There is a change in land use of this area from undeveloped to residential development which will have an increase in curve number. However in the post developed condition the area that flows to the south has been substantially reduced due to the proposed grading, road construction and storm sewer construction. Thus the post developed flow to the south is less than the predeveloped flow to the south. Below is a table comparing the pre and post development flows to the south.

	Area (ac.)	CN	10 yr	25 yr	100 yr
Pre-developed	6.61	70	22.14	31.95	48.54
Post-developed	1.87	83	10.90	14.45	20.18

