LEE'S SUMMIT
MISSOURI

DEVELOPMENT SERVICES

Date: Tuesday, December 29, 2020

To: ENGINEERING SOLUTIONS
50 SE 30TH ST
LEES SUMMIT, MO 64082

From: Gene Williams, P.E.
Senior Staff Engineer

Application Number: PL2020375

Application Type: Engineering Plan Review

Application Name: The Ridge at Winterset Summit - Water Line

The Development Services Department received plans for this project on December 15, 2020. We have completed our review and offer the following comments listed below.

- Resubmit three (3) full size sets of plans (no larger than 24"x36") folded to 8-½"x11", one (1) comment response letter, and one (1) digital copy following the electronic plan submittal guides as stated below.
- Revised plans will be reviewed within five (5) business days of the date received.

Engineering Review

1. The City does not desire the water main to be extended all the way around the cul-de-sac as shown. Lot 1604 has access to the public water main across the street, and not across the cul-de-sac. Please revise.

2. As drawn, it appears bends will be required to manage the excessive bends in the vertical axis. Only 1 degree of deflection is allowed within the fitting itself, with zero deflection within the pipe. This equates to an approximate 1200 foot radius of bend minimum, based on a 20 foot stick of pipe. Please review and revise the plans as appropriate. It would appear that with variable depth of bury, the water main might be able to be installed without vertical bends.

3. Where pipe is to be installed in fill, please show on the profile view in graphical format how fill will be installed prior to trenching and installation. This is a new requirement for all pipes, whether water main, sanitary sewer, or storm lines.

4. A trenching and backfill detail is missing. Please be aware that the aggregate requirements on the top of the pipe have changed to 12 inches rather than 6 inches.

Traffic Review - No Comments

In order to calculate the Engineering Plan Review and Inspection Fee, a sealed Engineer's Opinion of Probable Construction Costs shall accompany your final submittal copies. The itemized estimate (material and installation) shall be sufficiently broken down and shall include the following items, as applicable.

- Public infrastructure, both onsite and offsite.
- Private street construction, including parking lots and driveways.
- Sidewalks located within the right-of-way.
- ADA accessible ramps.
- Sanitary sewer manholes and piping between manholes, including private mains.
- Connection of the building sanitary sewer stub to the public main.
- Waterlines larger than 2 inches in diameter, valves, hydrants, and backflow preventer with vault, if outside the building.
- Stormwater piping greater than 6 inches in diameter, structures, and detention / retention facilities - public or private.
- Water quality features installed to meet the 40-hour extended duration detention requirements.
- Grading for detention / retention ponds.
- Grading to establish proper site drainage.
- Utility infrastructure adjustments to finished grade (i.e. manhole lids, water valves, etc.).
- Erosion and sediment control devices required for construction.
- Re-vegetation and other post-construction erosion and sediment control activities.

Electronic Plans for Resubmittal

All Planning application and developmrnt engineering plan resubmittals shall include an electronic copy of the documents as well as the required number of paper copies.

Electronic copies shall be provided in the following formats

- Plats – All plats shall be provided in multi-page Portable Document Format (PDF).
- Engineered Civil Plans – All engineered civil plans shall be provided in mulit-page Portable Document Format (PDF).
- Studies – Studies, such as stormwater and traffic, shall be provided in Portable Document Format (PDF).

Please contact me if you have any questions or comments.

Sincerely,

/s/ Gene Williams electronically signed Dec. 29, 2020

Gene Williams, P.E.
Senior Staff Engineer
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Gene.Williams@cityofls.net

cc: Development Engineering Project File