

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: PL2020377

Application Type: Engineering Plan Review

Application Name: THE RIDGE AT WINTERSET SUMMIT - STREET, STORMWATER, MASTER DRAINAGE PLAN, AND EROSION AND SEDIMENT CONTROL

The Development Services Department has completed its 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 - Corrections

1. Typical section for the street is not correct. The surface course must be either Type 5 or 6, and the base course must be Type 5.
2. Typical section of the street is not correct if using geogrid. If using geogrid, 10 inches of aggregate must be used rather than 6 inches.
3. Grading appears to be too steep over most of the project. We are measuring 2:1 slopes over a significant portion of the project.
4. The island shown at the end of the cul-de-sac should be removed.
5. The location of sidewalk and ADA-accessible ramps entering the cul-de-sac was missing.
6. The Master Drainage Plan was missing the basement type for each lot, the MBOE for each lot, and the existing and finish corner elevations for each lot.
7. Stationing was missing on the plan view of the street.

8. A trenching and backfill detail was missing for the pipe installation. Be aware the City has changed the requirements for aggregate on top of the pipe. It is now 12 inches over the pipe rather than the previous 6 inches.
9. Please specify in plain language the rip rap type, the dimensions of the rip rap, the depth of the rip rap, approximate tons of rip rap, and geotextile beneath the rip rap. The calculations shown within the plans are required, but the critical information described above should be provided without consulting a table.
10. The underdrain detail is missing from the standard details.
11. Ensure the notes concerning the pavement thickness and subgrade match the typical section view.
12. Normally, a separate erosion and sediment control plan is required for residential subdivisions. The size of this particular subdivision, however, does not necessarily require the submission of a separate erosion and sediment control plan, unless work shall begin prior to issuance of an infrastructure permit. If work shall commence prior to this time, please submit a separate erosion and sediment control plan to the City.
13. A toe wall detail was missing for the flared end section.
14. The rip rap area appears to be installed in an area greater than the design slope of 13 percent. Please review and revise as appropriate, including the calculations for the rip rap dimensions and sizing.

Traffic Review - Corrections

1. Sidewalk required along one side of road. Payment in lieu of construction may be an option per UDO criteria and site conditions. South side of road should be considered based on trail location and road alignment to the east/south.

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 development 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 multi-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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cc: Development Engineering Project File