
DEVELOPMENT SERVICES

Date: Friday, February 25, 2022

To: SCHLAGEL & ASSOCIATES
James Long, P.E.
14920 W 107TH ST
LENEXA, KS 66215

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

Application Number: PL2022051

Application Type: Engineering Plan Review

Application Name: The Retreat at Bailey Farms, 1st Plat - Public Streets, Storm and Master
Drainage Plan

The Development Services Department received plans for this project on February 10, 2022. We have completed our review and offer the following comments listed below.

- See comments below to determine the required revisions and resubmit to the Development Services Department public portal located at devservices.cityofls.net. Digital documents shall follow the electronic plan submittal guides as stated below.
- Revised plans will be reviewed within ten (10) business days of the date received.

Engineering Review

1. A stormwater memorandum is required. It shall document this phase and other phases of the overall development and perhaps reference the overall overall stormwater report. Please provide a signed and sealed stormwater memorandum.
2. Sheet 3: A callout for an overflow swale is shown, yet the contour lines do not reflect a swale being installed. Please revise this sheet in this area to reflect the installation of an overflow swale at B-B, and also include additional cross-sections along this emergency overflow route. Finally, profile views of each cross section are required. Generic cross-sections as depicted on this sheet are not sufficient. Please revise.
3. Sheet 3: Additional cross-sections are required to denote the location of the swale A-A. These shall be placed at key locations, at the beginning, end, and selected intervals along the swale. Graphic representation of each cross-section is required. Generic cross-section profile views are not sufficient. Please revise.
4. Sheet 3: MBOE designation was missing on the table. Please see guidance provided on previous project (e.g., The Manor at Bailey Farms 1st Plat) concerning MBOE designation for lots. At present, it is unclear

whether the underground system is capable of managing the 100 year event since HGL was not provided. MBOEs shall be established for all lots adjacent to emergency overflow swales, swales, or other features if the underground system is unable to meet the criteria sent previously. Please revise.

5. Sheet 3: The table was missing the lots requiring an "as-graded" plot plan. Please revise.
6. Sheet 3: It appears a swale is being constructed along the eastern boundary of the project in Tract A. No cross-section callouts were provided, nor were any profile views of the cross-section callouts provided, nor any calculations of the hydraulics within the swale. Please revise as appropriate.
7. Sheet 6: Geometry is acceptable, but not reviewed due to lack of any details. Please be aware that "wings" on ADA-accessible ramps are not allowed in the City of Lee's Summit. Grading shall be required at no more than 3 to 1 slope to the ramp. Please provide a complete plan for the ADA-accessible ramps. Ensure all elevation callouts, running slope callouts, and cross-slope callouts are provided on the ADA-accessible ramps.
8. There was no indication in the plans concerning the start and stop point of sidewalk construction. All ADA-accessible ramps shall be shown to be constructed with these improvements, and all sidewalk along unplatted property and common area tracts shall be constructed with these improvements. Provide sufficient notes showing the exact start and stop points for construction of ADA-accessible ramps and sidewalk.
9. Sidewalk north of Lot 24 shall be constructed along with these improvements since it is located along unplatted property. Please see above comment concerning the placement of notes and symbols to delineate the start and stop point of all sidewalk construction.
10. Sheet 10: HGL for the design storm was not provided on the profile views. Recommend the 10 year event be at or below the crown of pipe, and the 100 year event at least 0.5 feet below any opening. If the underground system cannot manage the 100 year event without surcharging (as defined as being less than 0.5 feet below any opening such as a throat in a curb inlet or field inlet), then an emergency overflow swale shall be required. Please be aware that emergency overflow swales are still suggested even if this criteria is met. Please revise as appropriate.
11. Sheet 11: Asphaltic concrete pavement type was missing. Please see Design and Construction Manual for specific choices, and revise as appropriate.
12. It would appear an underground storm system is warranted along Ranson Rd. to eliminate the swale within Tract A. Please analyze and revise as appropriate. Ensure appropriate easements are dedicated on the plat and shown on the plans.
13. It would appear additional underground stormwater system is warranted within the rear of the lots north of Windbreak Dr. Please analyze and revise as appropriate. Additional easements along the rear of these

lots is also warranted to place the public storm lines and field inlets within the rear lots. Ensure this is carried-through to the plat.

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 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/ electronically signed Feb. 25, 2022

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