

Date: Friday, October 13, 2023

To: David Eickman, P.E.
Olsson Associates
North Kansas City, MO 64116

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

Application Number: PL2023145

Application Type: Engineering Plan Review

Application Name: THE VILLAGE AT DISCOVERY PARK - PUBLIC SANITARY and FORCE MAIN
RELOCATION

The Development Services Department has completed its review of the above-referenced plans dated Sep. 29, 2023 and offers 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 - Corrections

1. Sheet C664 was shown in the previous submittal with the forcemain outside the limits of the dam. A review of Sheet C663, however, appears to show the forcemain is still within the limits of the dam. The forcemain must be outside the limits of the dam, since it will present a conduit for potential failure, as well as the possibility of a line break and subsequent dam failure. Please review and revise as appropriate, and ensure the forcemain is outside the limits of the dam.
2. The sanitary sewer manholes that exceed 20 feet of depth should be upgraded to 5 foot inside diameter. Many are already shown as 5 foot inner diameter manholes, with the exception of Z1, Z2, 16-008, 16-010, 16-009, and A8. Please revise plans to show 5 foot inside diameter sanitary sewer manholes for all sanitary sewer manholes greater than 20 feet in depth.
3. Manhole A8 is shown with excessive depth for no apparent reason. It was also not included in the waiver exhibit. Was there a reason for the excessive depth on the south side of Colbern Rd.? If not, please raise the manhole.
4. It does not appear sufficient effort was expended to lessen the depth of sanitary sewer lines throughout the project. Where allowed, please raise manholes to lessen the impact of deep sanitary sewers for this project. There appear to be several ways to minimize the depth issues, one of which was described in the

above comment. There also appear to be methods to raise the manholes at the Douglas St. crossing by a measurable amount. Every foot will help, as these lines will be extremely difficult to maintain as shown. Please thoroughly evaluate and revise. At this time, staff will not support a waiver to the 20 foot maximum depth rule unless there has been additional effort to minimize the excessive depth issues.

Traffic Review - Not Required

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 Oct. 13, 2023

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cc: Development Engineering Project File