

Date: Wednesday, July 13, 2022

To: OLSSON ASSOCIATES
1301 BURLINGTON, SUITE 100
NORTH KANSAS CITY, MO 64116

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

Application Number: PL2021226

Application Type: Engineering Plan Review

Application Name: East Trails Middle School - Cape Drive Extension

The Development Services Department has completed its review of the cost estimate dated Oct. 4, 2021 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 - Pending

1. A preliminary design is required prior to reviewing any cost estimate for the project. No further review other than shown in this comment letter was performed. This application is therefore considered incomplete.
2. A signed and sealed analysis of the stream crossing was not prepared showing the sizing for the stream crossing. Please be aware this crossing shall be designed to meet or exceed the requirements of the Design and Construction Manual, and includes the requirement that any backwater effect does not extend outside the right of way for the 100 year event, unless suitable inundation easements are obtained from adjacent property owners. Design criteria for a collector road shall be utilized in addition to the criteria stated above. It is likely the headwater effect during the 100 year event encroaching upon neighboring properties shall prevail, so please be aware of this criteria.
3. Cost estimate was missing the extension of the sanitary sewer to the plat boundary. This is a requirement for the escrow agreement.
4. Cost estimate was not organized in a logical way. For instance, water line extension is shown under "Asphalt Paving", and the box culvert is shown under street paving. Please evaluate and reorganize the cost estimate accordingly.

5. All cost estimates shall be sealed by a design professional registered in the State of Missouri. This was missing. It also appeared out of date, with unit costs almost 1 year old. Please re-evaluate, and perform inflation adjustments as necessary.

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 Jul. 13, 2022

Gene Williams, P.E.
Senior Staff Engineer
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cc: Development Engineering Project File