

Date: Friday, January 24, 2020

To: HDR ENGINEERING, INC
Mitchell Wiebelhaus, P.E.
10450 Holmes Rd., Suite 600
Kansas City, MO 64131

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

Application Number: PL2020007

Application Type: Engineering Plan Review

Application Name: DTLS APARTMENTS - PUBLIC SANITARY SEWER IMPROVEMENTS

The Development Services Department received plans for this project on January 09, 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 ten (10) business days of the date received.

Engineering Review - Corrections

1. The letter dated Jan. 7, 2020 from HDR (hereinafter referred to as "the revised sanitary sewer study") appeared to contain a typographical error. Page on the revised sanitary sewer study states that the original study analyzed 178 total units. It appears the original study actually studied 278 units. Please reconcile.
2. The revised sanitary sewer study shows additional surcharging to the north (i.e., the Cedar Creek Watershed). This surcharging is currently being evaluated internally.
3. It does not appear there was any evaluation of the downstream effects of the sanitary sewer surcharging discussed in the above comment. For instance, what effect would the surcharging have on existing homes and businesses? Of particular concern is: 1) 13 NW Lakeview Blvd., 2) 15 NW Lakeview Blvd., 3) 16 NW Lakeview Blvd., 4) 500 NW Little Ave., 5) 502 NW Little Ave., 6) 16 NW Main St. The hydraulic grade line for the proposed conditions in the vicinity of these addresses are above the existing conditions.
4. The alignment of the sanitary sewer in the middle of the road is not currently allowed by the Design and Construction Manual. If allowed, a waiver is required. As a condition of this waiver (if allowed by Public Works and Water Utilities), a full-width mill and overlay would likely be required. If this is desired, the waiver request must be submitted on forms provided by the City, along with a set of plans describing the work covered by the waiver.

5. The sanitary sewer appears to be installed at minimum slope (i.e., 0.60% slope). The preference would be to design a bit more slope, in order to account for installation tolerance. The City will not accept any sanitary sewer less than 0.60%, so it may be beneficial to increase the slope slightly.
6. A doghouse manhole is proposed. These are specifically prohibited within the City of Lee's Summit, and a waiver to this requirement would not be supported by Development staff, nor Water Utilities.
7. The standard detail for the sanitary sewer wye connections and tracer wire was missing.
8. Details were missing for the City of Lee's Summit frame and lid.
9. Please remove the "Approved - City of Lee's Summit, Missouri" note on the cover sheet. The City will provide a red stamp when the plans are approved.
10. If a waiver is granted for the installation of the sanitary sewer beneath pavement, a temporary traffic control permit must be obtained from Public Works. This will require a separate application and plan, to be submitted to Public Works. Please see the City of Lee's Summit website for the form "Temporary Traffic Control Permit" under the Public Works tab. Please allow for ample review time by Public Works staff in relation to this permit.

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,

Original Signed

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