

Date: Monday, August 12, 2019

To: OLSSON
Fred Schlegel, P.E.
7301 W 133RD ST STE 200
OVERLAND PARK, KS 66213

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

Application Number: PL2019214

Application Type: Engineering Plan Review

Application Name: THE PRINCETON - SE OLDHAM PKWY - WATER MAIN EXTENSION

The Development Services Department received plans for this project on Jul. 29, 2019. 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 five (5) business days of the date received.

Engineering Review - Corrections

1. Please refer to the previous applicant letter. Comment #2 requested two (2) additional air release valves at "high points" located near sta 14+35 on Sheet W2.1 and 31+48 on Sheet W2.5. Sheet W2.5 has changed, however, and the air release valve shown at sta 31+40 appears to be necessary or desired. Please eliminate this extraneous air release valve due to the change in the plans from the previous submittal.
2. A final review by staff identified several additional "high points" along the 12 inch water line which will need additional air release valves. This would include the "high points" located near sta 10+38 on Sheet W2.1, sta 34+31 on Sheet W2.6, and sta 16+59 on Sheet W2.8. Finally, it is unclear if an additional "high point" is created near the 8 inch to 12 inch reducer shown near sta 17+52.
3. Concerning the above comment, it would be beneficial to determine if the geometry of the 12 inch water main shown on Sheet W2.8 between sta 15+69 and the 12 inch to 8 inch reducer can be changed slightly to eliminate the "high point" near sta 16+59. The City allows for water line installation up to seven (7) feet in depth, and it appears the geometry can be adjusted to eliminate the high point at sta 16+59 shown on Sheet W2.8.
4. Sheet W2.6: Can the "high point" near the fire hydrant at sta 37+09 be eliminated by changing the vertical geometry slightly? The City allows up to seven feet of cover over the top of pipe, and it appears this "high

point" can be eliminated. If this can be done, then an air release would not be necessary.

In order to calculate the Engineering Plan Review and Inspection Fee, a sealed Engineer's Opinion of Probable Construction Costs (revised to show the additional air release valves) should 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