

---

**PUBLIC WORKS ENGINEERING DIVISION**

**Date:** Thursday, October 06, 2016

**To:**

ENGINEERING SOLUTIONS

Matt Schlicht, P.E.

Email: MSCHLICHT@ES-KC.COM

Fax #: (816) 623-9849

**From:** Gene Williams, P.E.

Senior Staff Engineer

**Application Number:** PL2016106

**Application Type:** Engineering Plan Review

**Application Name:** Manor at Stoney Creek 2nd Plat Sanitary Sewer

---

The Public Works Department received plans for this project on Sept. 20, 2016. We have completed our review and offer the following comments:

**Engineering Review**

1. Please refer to comment #24 of the previous comment letter dated July 20, 2016. The index sheet does not appear to match the actual plan sheets in terms of sheet numbers or number of sheets.
2. Please refer to comment #12 of the previous comment letter dated July 20, 2016. It appears the flowline out direction is mislabeled for manhole A-3. Should this be east rather than north?
3. Please refer to comment #13 of the previous comment letter dated July 20, 2016. It appears the flowline in and flowline out direction for manhole A-2 is mislabeled. Should this be east? Also, isn't the flowline out direction northwest rather than northeast?
4. Please refer to comment #14 of the previous comment letter dated July 20, 2016. Manhole A-7 appears to have been corrected in terms of flowline in direction, but now the manhole is shown underground by a foot.
5. Please refer to comment #17 of the previous comment letter dated July 20, 2016. Manholes B-2, B-3, and A-7 are not shown at proposed grade.
6. Please refer to comment #18 of the previous comment letter dated July 20, 2016. Manhole B-3 is shown one (1) foot above finish grade.

7. Sheet C.405: The minimum pipe slope for a 10" sanitary sewer line is 0.42%, with a higher slope desirable. All of the pipe slopes shown on the profile view are less than the minimum.
8. Sheet C.405: Most of the manholes shown on the profile view are above finish grade for no apparent reason.
9. Sheet C.406: Pipe slopes shown on the profile view are too shallow. The minimum pipe slope for 10" sanitary sewer line is 0.42%.
10. Sheet C.406: Sanitary Sewer Line C is shown in the profile view with manholes extending above the proposed ground level for no apparent reason.
11. Sheet C.406: Manhole D-1 is shown in a sump condition which will not be allowed.
12. Sheet C.407: Please refer to comment #22 of the previous comment letter dated July 20, 2016. The standard detail, with tracer wire, was not shown for the private sanitary sewer laterals.
13. Sheet C.407: Sanitary sewer pipe encasement detail, casing pipe, and drop manhole details are shown, but it is unclear where these are used on the project. If not used, please remove them.
14. Sanitary sewer laterals do not appear to be shown for the off-site portion of the sanitary sewer. Please be aware that all future sanitary sewer laterals will be required to be connected to the main via a cut-in wye.

In order to calculate the Public Works' 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**

---

Beginning Monday, May 23, 2016, 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 will not be required for initial application submittals at this time as the plans are subject to change.

Electronic copies shall be provided on CD in the following formats

- Plats – All plats shall be provided in Tagged Image Format File (TIFF) Group 4 compression.
- Engineered Civil Plans – All engineered civil plans shall be provided in Tagged Image Format File (TIFF) Group 4 compression. All sheets shall be individually saved and titled with the sheet title.
- Architectural and other plan drawings – Architectural and other plan drawings, such as site electrical and landscaping, shall be provided in Portable Document Format (PDF).
- Studies – Studies, such as stormwater and traffic, shall be provided in Portable Document Format (PDF).
- It is requested that each plan sheet be a maximum of 2MB.

Please contact Staff with any questions or concerns you may have.

If you have any questions or comments, please contact me, Gene Williams either at (816) 969-1812 or e-mail to [Gene.Williams@cityofls.net](mailto:Gene.Williams@cityofls.net).

Sincerely,

*Original Signed*

Gene Williams, P.E.  
Senior Staff Engineer

cc: Development Engineering Project File