



PUBLIC WORKS ENGINEERING DIVISION

Date: Thursday, October 05, 2017

To:

PHOENIX ENGINEERING & SURVEYING LLC
Brian Glenn, P.E.
Email: BRIAN@PHOENIX-LLC.COM
Fax #: (660) 429-1801

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

Application Number: PL2017194

Application Type: Engineering Plan Review

Application Name: Whispering Woods 1st Plat - On-Site Sanitary

The Development Services Department received plans for this project on September 14, 2017. We have completed our review and offer the following comments:

Engineering Review

1. Please specify on the title these plans are for the on-site sanitary sewer system rather than the off-site sanitary sewer plans. At this time, the City has not received the off-site sanitary sewer plans.
2. Sheet 3 of 10: In addition to tabature format, please show the location of the wyes on the plan view.
3. Sheet 3 of 10: Tees are not allowed. Please revise all connections to wyes.
4. Sheet 3 of 10: Please provide the stationing and elevation of the sanitary sewer stubs.
5. Please ensure the locations of wyes do not show a direct-connect to any manhole. They must be a minimum of 4 feet from any manhole, and must be a minimum of 4 feet from any adjacent wye.
6. Sheet 4 of 10: What is the irregular feature to the southeast of Lot 22? It does not appear to be the water quality basin, so it is unclear why this is shown.
7. Sheet 5 of 10: It appears the easement is missing between Lot 6 and 7. Please show it.
8. Sheet 9 of 10: The standard details for manhole frames and lids were missing.

9. Trench checks must be installed as per SAN-1. Please add a note on the plans specifying the use of trench checks for all sanitary sewer service stubs.
10. A trenching and backfill detail was not provided.
11. Please label existing manholes with the City manhole number. The manhole just north of A-1 is 51-001. The manhole to the south of this location is 51-002.
12. Sheet 5 of 10: MH A-1 is shown what appears to be over the existing line. Please provide the flowline in/out elevations at this location. Please specify that "no doghouse manholes are allowed".

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

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) 969-1223 or e-mail to Gene.Williams@cityofls.net.

Sincerely,

Original Signed

Gene Williams, P.E.
Senior Staff Engineer

cc: Development Engineering Project File