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**PUBLIC WORKS ENGINEERING DIVISION**

**Date:** Thursday, March 30, 2017

**To:**

HDR ENGINEERING, INC

Cory Imhoff, P.E.

Email: Cory.Imhoff@HDRINC.COM

Fax #: (816) 347-1197

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

Senior Staff Engineer

**Application Number:** PL2017055

**Application Type:** Engineering Plan Review

**Application Name:** Creekside at Raintree Lots 1 through 31 - Water Line Plans

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The Public Works Department received plans for this project on March 09, 2017. We have completed our review and offer the following comments:

**Engineering Review**

1. It appears an additional fire hydrant is warranted along Meadowbrook Dr. between Lots 31 and 30. Fire hydrants on cross-streets cannot be used to satisfy the maximum distance between fire hydrant rule.
2. Sheet 02 and 03: A gate valve should be shown on the east/west leg of the water main near station 3+52 on water line 1-1. Only one (1) valve on the north/south leg is desired on either side of the tee at this same location.
3. Sheet 02: An additional valve is needed on the north/south leg of the main along Raintree Pkwy. near the tee at station 1+00.
4. Sheet 02: Water line 1-2 within the cul-de-sac should be moved closer to the pavement within the cul-de-sac, and 45 bends should be used to make the direction change to the northeast. This will eliminate the need for a 90 degree bend, and eliminate the "plugged-end" at station 2+21. Please ensure the minimum distance of fifteen (15) feet between the building line and the outside of the water line is maintained. Please contact me if there are questions concerning this comment.
5. Sheet 02: Since a valve already exists to the west of the new tee, a new gate valve will not be required on the existing east/west leg of the water main. However, please show the location of this existing water valve as an aid in shut-down operations. According to our records, it is located approximately 50 feet to the west of the new tee at station 0+96 on water line 1-2.

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**

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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