

Date: Monday, June 03, 2019

To:

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

Application Number: PL2019079
Application Type: Engineering Plan Review
Application Name: Winterset Valley 13th Plat - Water Line

The Development Services Department received plans for this project on May 17, 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

1. Revisions were made to the length of the water main around cul-de-sac bulbs in response to the previous comment letter. However, the water main is shown up against or in two separate cases, outside the limits of the public easement if the width of the line is taken into account. The water main should be placed as close as possible within the centerline of the easement, or at a minimum, sufficient distance (i.e., 5 feet) from the outside of the pipe to allow future maintenance.
2. Revisions were made to Sheet 3 in response to our previous comment letter regarding "consideration given between storm lines and water lines". However, on Sheet 3, at station 0+00, there is not enough depth of cover, and the separation is less than 18 inches.
3. Sheet 3: Revisions were made to the profile view of Line 2 which appear to show abrupt slope changes in the pipe. Even though the horizontal versus vertical scale is exaggerated, it appears the angles are excessive, and would not be allowed on C-900 pipe. The only deflection allowed in C-900 pipe is 1 degree in the joint, not the pipe. No stress is allowed within the pipe itself. It appears a different design is

warranted, based on these abrupt slope changes.

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