
PUBLIC WORKS ENGINEERING DIVISION

Date: Tuesday, January 03, 2017

To:

ENGINEERING SOLUTIONS

Matt Schlicht, P.E.

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From: Gene Williams, P.E.

Senior Staff Engineer

Application Number: PL2016150

Application Type: Engineering Plan Review

Application Name: Village at View High Drive Street, Storm, Master Drainage Plan, and ESC

The Public Works Department received plans for this project on Dec. 6, 2016. We have completed our review and offer the following comments:

Engineering Review

1. The erosion and sediment control plan is illegible at the half scale (i.e., the half size set will be illegible). Please increase the font size so the half size set is legible
2. Please see comment #22 in the previous applicant letter dated Nov. 15, 2016. The storm line in the vicinity of curb inlet 2-3 appears to be outside the limits of the easement. Please increase the easement width in this area so the storm line is fully-contained within the easement, or change the geometry of the storm system as appropriate.
3. Macro Storm Water Drainage Study: The normal pool elevation did not appear to be mentioned in the report. It is assumed the normal pool elevation will be the flowline elevation of the outlet structure pipes, but should be clearly discussed in the report.
4. All Sheets Related to Stormwater Profiles and Hydraulic Grade Lines: Since it appears the 100 year water surface elevation within the retention basin is approximately 904 feet, why is the 100 year hydraulic grade line shown on the profile view at FES 1-1 at 900 feet? This appears to be a significant difference, and it would appear the tailwater elevation was not taken into account.
5. Please show the normal permanent pool elevation within the retention basin on Sheet C.200, Sheet C.201, and Sheet C.205.

6. Sheet C.205: It is unclear how the outlet structure OS-1 is to be installed. The detail is not labeled "OS-1", and two side by side rectangular boxes are shown with no pipe exiting the structure(s). A profile of the pipe(s) exiting the structure was also absent.
7. An emergency drawdown will be required for the retention basin. Please consider a system that avoids penetrations through the dam, such as a siphon system used in a previous installation. Plan and profile views should be provided, as well as instructions for emergency use.
8. Turf reinforcement mat would appear warranted for this project. The estimate included a minimal amount, but the plans do not appear to show where it is to be installed. Due to the scope of grading activities on this site, slopes, and potential for sediment runoff, please increase the amount of turf reinforcement, and provide notes showing the location for the turf reinforcement mat.
9. Please provide a revised Engineer's Estimate of Probable Construction Costs based on any additions or changes to the plans based on these comments.
10. If desired, the off-site traffic improvements discussed under the traffic comments may be submitted under a separate cover. If not, these plans should be included within this plan set.

Traffic Review

1. Add stop signs and street name signs on Village Park Dr. at Kessler Dr., on Kessler Dr at View High Dr, and at Village Park Dr at View High Drive.
2. The typical section for Kessler Dr should have a 36 foot width between curbs so that a three lane configuration is accommodated throughout the commercial corridor. The section for Village Park Dr is okay given the right-in/right-out condition and transition to residential collector.
3. Typical sections should show a 4:1 slope, 3:1 may be okay in some locations depending on the adjacent road alignment, length of slope and other safety considerations (e.g. a 3:1 is not considered recoverable for an incident on the steep grade in combination with the curve on Kessler where the clear zone is extended beyond the curbs farther than normal).
4. Add pavement marking plan for Kessler Dr, especially the westbound left-turn lane at View High Dr. Pavement marking standards are available for reference.
5. Off-Site road improvement plans were not included to review.

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.

Sincerely,

Original Signed

Gene Williams, P.E.
Senior Staff Engineer

cc: Development Engineering Project File