
PUBLIC WORKS ENGINEERING DIVISION

Date: Tuesday, June 14, 2016

To:

WARGER ASSOCIATES LLC

Steve Warger, P.E.

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Fax #: <NO FAX NUMBER>

From: Gene Williams, P.E.

Senior Staff Engineer

Application Number: PL2016035

Application Type: Engineering Plan Review

Application Name: Napa Valley 3rd Plat Street/Storm/MDP/ESC

The Public Works Department received plans for this project on May 16, 2016. We have completed our review and offer the following comments:

Engineering Review

1. Please include the Master Drainage Plan with the plan set. The index should be updated to reflect the addition of the Master Drainage Plan to the plan set. In addition, please label the plans as "Napa Valley 3rd Plat" rather than the 4th Plat. Finally, a written statement must be provided (signed and sealed by a professional engineer) stating that the detention basin being constructed for Napa Valley 2nd Plat was also designed to serve Napa Valley 3rd Plat.
2. MLOs are called-out on the Master Drainage Plan. The City does not recognize the term "MLO". Was the intent to label this as MBOE?
3. MBOEs must be a minimum of 2 feet higher than the calculated 100 year water surface elevation. It appears 1 foot was used.
4. 0.6% slope within the swale on Napa Valley 1st Plat is still shown. This will need to be updated since this is a substandard running slope within a grass-lined swale.
5. Master Drainage Plan: The City recognizes the following basement types for purposes of labeling on the Master Drainage Plan: 1) standard, 2) daylight, and 3) walkout. Please change the labeling scheme accordingly.
6. Notes should be provided on all pertinent sheets stating that the sidewalk along the common area tract

(i.e., near the stream buffer to the northeast, and the common area tract to the southwest) must be constructed as part of the street improvements, rather than later.

7. Sheet 8 of 17: It appears a sag exists on Napa Valley Dr. at station 0+64. An underdrain would be required at this location in accordance with the City of Lee's Summit standard drawing UD-1.
8. Sheet 8 of 17: It appears a sag exists on Meritage Ln. at station 0+44. An underdrain would be required at this location in accordance with City standard detail UD-1.
9. All Storm Profile Sheets: Hydraulic grade lines should be shown in graphic format for all storm sewers. The design storm should also be shown on the profile view. Where the system cannot handle the 100 year event without surcharging, a suitable overflow route must be established. The overflow route must be shown on the Master Drainage Plan, and should include overflow swales between lots, or other features to minimize potential flooding of homes.
10. Master Drainage Plan: It did not appear that overflow swales or other features to manage the 100 year event were shown between lots. Please see the above comment for more information on this requirement.
11. In reference to the above comments concerning overflow swales, the MOBE of adjacent lots must be at least 2 feet higher than the calculated 100 year water surface elevation within the overflow swale.
12. It appears that many of the MBOEs (assuming MLO was intended to be the MBOE) are referenced to the 100 year water surface elevation within the detention basin. It would appear that there are a few lots which would be adjacent to overflow swales, and as such, the 100 year water surface elevation within these overflow swales should be used rather than the 100 year water surface elevation within the detention basin.
13. As a spot check of the MBOEs shown on the lots, please refer to Lot 146. The table shows a 100 year water surface elevation of 995.0, presumably within the rear yard swale. However, it appears the 100 year water surface elevation is well above 995.0 based on the limits shown. This would also appear to pertain to all of the lots adjacent to this swale. Please check each lot for proper MBOE determination, keeping in mind that a 2 foot minimum elevation difference is required between the 100 year water surface elevation within the swale, and the lowest building opening elevation.
14. If desired, multiple MBOEs may be called-out on the Master Drainage Plan for the side lot lines. This may help since there is considerable fall between the lot corners adjacent to the swale on the lots discussed in the comment above. If desired, a note can be provided on the Master Drainage Plan stating that "...where multiple MBOEs are called-out, interpolation between the MBOEs may be allowed during the preparation of a plot plan." If there are any questions concerning this, please contact the City for further clarification.

Traffic Review

1. The minimum horizontal centerline radius for safe sight distance on a 25 mph roadway design does not appear to be met for Curve #5, SW Napa Valley Dr. near Blackstone Place. Verify adequate vertical curve design (K Values) for 25 mph in this area as well.
2. Show a stop sign/street name signs on SW Napa Valley Dr. at SW Blackstone Pl.
3. Show a stop sign/street name signs on SW Meritage Ln. at SW Blackstone Pl.

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 Re-submittal

Beginning Monday, May 23, 2016, all Planning application and development engineering plan re-submittals 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 pdf or 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 storm 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