
PUBLIC WORKS ENGINEERING DIVISION

Date: Wednesday, July 20, 2016

To:

ENGINEERING SOLUTIONS

Matt Schlicht, P.E.

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From: Gene Williams, P.E.

Senior Staff Engineer

Application Number: PL2016106

Application Type: Engineering Plan Review

Application Name: Manor at Stoney Creek 2nd Plat Sanitary Sewer

The Public Works Department received plans for this project on June 28, 2016. We have completed our review and offer the following comments:

Engineering Review

1. Please change the title block on all sheets to read "The Manor at Stoney Creek 2nd Plat".
2. Sheet C.401: Please label the off-site sanitary line as being a possible future connection to the future plat boundary, and not part of these plans.
3. Sheet C.401: It appears manhole A-5 is missing a symbol (i.e., it is labeled, but a symbol is missing).
4. Sheet C.401: The manhole at the end of the line on the south line of Lot 76 appears to be missing a symbol, and a label.
5. Sheet C.401: It appears the sanitary sewer line from D-2 to C-3 can be made with one run, without manhole D-1. Please adjust the sanitary sewer alignment slightly so sanitary sewer line D enters sanitary sewer line C as close to a 90 degree angle as possible.
6. Sheet C.401: Off-site easements for the sanitary line being installed across unplatted land will be required prior to issuance of a Certificate of Substantial Completion. These easements should be dedicated sanitary sewer easements rather than general utility easements.
7. Manhole E-1, and the area to the west, exceeds the maximum depth of cover. Please submit a written waiver request, including the length of sanitary sewer which will exceed 15 feet of cover, and specific

locations (i.e., station to station).

8. Manhole A-5 and A-2 appear to exceed the maximum depth of cover. Please see the above comment concerning the submission of a waiver request.
9. Sheet C.402: It appears that a drafting remnant is shown on the profile view near station 0+00. Please remove it.
10. In order to obtain better slopes for upstream sanitary sewer lines, the flowline in and flowline out for manhole A-6 could be changed to 0.2 feet rather than 0.4 as shown.
11. Sheet C.403: It appears the flowline in direction is from the south rather than the west. Also, 0.5 feet of fall is required at this angle.
12. Sheet C.402: It appears the flowline out direction for manhole A-3 is east rather than north.
13. Sheet C.402: It appears the flowline in direction for manhole A-2 is east rather than south, and the flowline out is northwest rather than northeast.
14. Sheet C.404: It appears the flowline in direction for manhole A-7 is south rather than west, and it appears that a 0.5 foot fall is required rather than 0.4 feet.
15. Sheet C.404: It appears there is a drafting remnant near station 0+00 on the profile view.
16. Sheet C.402: Please show the outgoing pipe elevation at the existing sanitary manhole.
17. Sheet C.404: It appears the profile view shows manhole B-2 one (1) foot above finish grade.
18. Sheet C.405: It appears manhole B-3 is shown one (1) foot above finish grade.
19. Sheet C.406: It appears manhole D-3 is shown well above grade, and manhole D-2 is shown below grade.
20. Sheet C.406: Line D is shown too shallow. It would appear that this area could be graded to achieve the proper 3.5 feet of cover, or relocated slightly.
21. General Comment: The pipe slopes are shown at minimum slope in many instances. The City recommends the pipe slopes be increased slightly to account for tolerance during construction. In either

case, the City will not be able to accept any pipe slope which is less than the minimum slope.

22. Sanitary Details: It appears the sanitary wye connection detail was missing. Please ensure the new standard detail is included, which depicts the tracer wire and box.
23. Sheet C.400: Please remove this sheet which depicts the possible future sanitary sewer to be extended to the future plat boundary.
24. Index Sheet (Cover Sheet): The index of sheets does not match what is shown in the plan set. Please ensure the "Index of Sheets" matches what is shown in the resubmittal.

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 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