JAMES CITY SERVICE AUTHORITY

MEMORANDUM

Date: March 24, 2016

To: Roberta Sulouff, Planner

From: Dion Walsh, JCSA Civil 1

Subject: SP-0104-2015 Williamsburg Landing Woodhaven Expansion

James City Service Authority has reviewed these plans for general compliance with the JCSA Standards and Specifications, Water Distribution and Sanitary Sewer Systems and has the following comments for the above project you forwarded on March 17, 2016. Quality control and back checking of the plans and calculations for discrepancies, errors, omissions, and conflicts is the sole responsibility of the professional engineer and/or surveyor who has signed, sealed, and dated the plans and calculations. It is the responsibility of the engineer or surveyor to ensure the plans and calculations comply with all governing regulations, standards, and specifications. Before the JCSA can approve these plans for general compliance with the JCSA Standards and Specifications, the following comments must be addressed. We may have additional comments when a revised plan incorporating these comments is submitted.

General Comments:

1. As-Built drawings for the water and sanitary sewer systems that were completed on the previous project (JCC project #SP-0037-2010) and this project are to be done and approved by JCSA prior to JCSA's acceptance of the water and sewer system.

Comments for Easement Plat:

2. An approved easement plat will be required prior to the approval of this project.

3. Extinguishment of easements shall be done prior to plan approval.

4. Verify the need for the small bump-out in the existing easement (see sheet 8) that goes into the handicap parking spots near a sidewalk. Perhaps this bump-out should be extinguished also.

5. Proposed easements are shown on plan sheet 7 for the new section. Show these easements on the plat.

6. Rotate the easement plat so North is pointing up. This not only will match the plan, but it is good drafting practice and easier to visualize when looking at GIS mapping. (The North arrow should never point below the horizon line.)

Sheet 7:

7. The bends on the water main labeled 45 degrees at Sta. 19+38 and Sta. 18+53 do not measure to be 45 degrees. Where possible, JCSA prefers the water main to be in the quarter point of the road and away from the gutter. JCSA mark-up to be emailed to AES. Revise 12" water main location around 2-story building.

8. Label the private gravity sewer and force main as "Private".

9. Are the fire hydrants to be private? There is no JCSA easement shown for them. If the hydrants are to be private, add the label "Private".

Sheet 8:

10. Per previous comment: *Per JCSA inspector, the 8" water main (shown within the pavement of the parking area north of the assisted living addition) was never relocated there. Revise plan.* When the contractor completes the test holes you mentioned in the response letter, revise plan to show correct location of the water main.

11. Per previous comment: *The sewer manhole appears to have never been relocated and the sewer main was not shortened* (where the sewer easement was shortened). On the utility sheet 8, show the location of and label with rim and inverts the existing manhole. Add notes to remove existing manhole on this sheet.

12. Where is the domestic RPZ backflow device for the building addition? Where does the water service tie into this section?

13. (Also commented on plat above) Verify the need for the small bump-out in the existing easement that goes into the handicap parking spots near a sidewalk. Perhaps this bump-out should be extinguished also.

14. Add to sheet 8 the Pump Station S.C.A.T. regulation note shown on sheet 7.

15. Add the note:

Sheet 15:

16. Show the 14" Colonial Pipeline symbol as 14" (not 6").

17. There are two existing concrete slabs shown for the Colonial Pipeline. For clarification, add a label stating "under water main" or "under force main". I am assuming there is just one slab under each main. Verify.

18. Show and label an ARV at the high points on the water main at approx. Sta. 13+75 and at approx. Sta. 20+80 and the up station side where it goes under the 12" water main.

19. Show the leader calling out the private 2" force main pointing to the force main and not the water main.

20. Show and label the 6" private sewer lateral where it crosses the water main.

21. If any changes were made in the location of the bends as suggested (sheet 7) above, reflect the changes on the profile.

Sheet 16:

22. Show and label an ARV at the high point on the water main at approx. Sta. 16+50 and on the force main at approx. Sta. 13+60 and the up station side where it goes under the 12" water main.

23. Verify the location of the high point in the water main near ARV at Sta. 16+50. It appears the ARV is not at the high point. Revise if ARV is not shown at the high point.

24. The private force main profile was removed. Add it back to the profile sheet.

Sheets 20 & 21:

25. Verify items match with pump station calculation corrections (see below).

Sheet L-3.1:

26. There is a light pole shown very close to an existing fire hydrant located in an island at the end of the parking lot north of the new building addition. There should be a minimum distance of 5' from the outside edge of the water main to the outside edge to the light pole. Verify if there is minimum clearance.

Water Data Sheet:

27. Per previous comment: *For the Peak Hour Demand, use the GPM from the Water Fixture Units provided and back in the other quantities.* According to the Fixture Count Calculations for the 2-story building (for example), the Peak Hour Demand is 67 GPM. Therefore the Average Day would be ¼ of that (=16.75 GPM) and the Max. Day Demand would be 1.7 X the Average Day Demand (=28.5 GPM). Where did the 77.68 Peak Hour Demand for the 2-story come from? Are you including irrigation? If so, irrigation quantities would go under "Irrigation Demand". The same goes for the other two buildings.

28. Revise lengths of water main. No 8" pipe was listed. Where is there 4" pipe? Check all the pipe lengths.

Please call me at 757-259-5457 if you have any questions or require any additional information.