JAMES CITY SERVICE AUTHORITY

MEMORANDUM

Date: Nov. 24, 2015

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 Nov. 12, 2015. 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. Provide As-Built drawings for the water and sanitary sewer that was completed on the previous project (JCC project #SP-0037-2010). This plan will not get JCSA approval until the past project's as-built plans are received.

2. Was the plat showing JCSA Utility Easements (attached) ever recorded? If these easements were recorded, show and label the easements on the plan sheets. Portions of these easements may be required to be extinguished. Extinguishing easements shall be done prior to plan approval.

3. The proposed sewer is private. However the water mains will be dedicated to JCSA. Show a proposed easement for the water mains on the plan sheets. An easement plat will be required prior to the approval of this project.

Sheet 7:

4. Verify if the water main around the west loop can be straighter.
   a) Would an 11 ¼ degree bend work at Sta. 20+66 with the next bend at Sta. 19+42? This would eliminate two bends.
   b) Would an 11 ¼ degree bend work after one pipe length (20") at approx. Sta. 17+08 and again at approx. Sta. 18+00?

5. The water and sewer lines north of the 2-story building do not appear to have a minimum of 10' of clearance between the outside edge of the water line and the outside edge of the sanitary sewer line and cleanouts. Please revise.

6. Please add a legend for the water meter, RPZ in hot box, water valve, detector check assembly, PIV, fire hydrant and sewer valves on this sheet.

7. Label the water meter sizes on this sheet.

8. Label the Stationing of the bends on the force main.

9. Per Virginia Department of Health (12VAC 5-590, E-15) and JCSA Backflow Prevention & Cross Connection Control (Section 4.1), an approved backflow prevention device for this type of facility is required. Show an RPZ backflow preventer in a hot box just past the domestic meter. OR add a note that the backflow device on the domestic water main is within the building.

10. Add the following note to the plan: "Approved Backflow Prevention Assemblies (BPA's) are those which meet AWWA standards, and are approved by ASSE and the USC-FCCC&HR (University of Southern California Foundation for Cross Connection Control and Hydraulic Research). The BPA's shall be installed in the orientation it was approved for by USC-FCCCHR. Backflows must not be installed in locations subject to flooding such as underground vaults. Outdoor enclosures for backflow preventers shall comply with ASSE 1060. See Section 2.4 of the JCSA Backflow Prevention and Cross Connection Control Program. Any question or inquiries should be directed to the JCSA Cross Connection Control Coordinator, at (757) 259-4138." A downloadable version of the JCSA Backflow Prevention and Cross Connection Control Program is available at http://www.jamescitycountyva.gov/pdf/jcsapdfs/BackflowPreventionCrossConnectionControlProgram.pdf.

11. Add the following note to the plan: "JCSA will not own nor maintain the proposed fire detector check assembly, however the Owner shall coordinate an inspection of the backflow prevention device with Thomas Fauber, JCSA Cross Connection Control Coordinator, at (757) 259-4138. The backflow preventer shall be tested, maintained and operated in accordance with the JCSA Backflow Prevention and Cross Connection Control Program."

Sheet 7 & 22:

12. Move the PIV behind the RPZ.

13. If these buildings are to have a sprinkler system, a Protectus III meter shall be used on the fire main instead of the detector check assembly. The Protectus III meter (or detector check assembly) is on the fire main and the domestic meter is on a separate service main. Either show two connections off the water main in the road or show one connection with two branches, fire and domestic, each branch with its own meter.

Sheet 8:

14. The force main profile shows a Sta. 10+00. Would this station 10+00 be located on this sheet? Please show and label Sta. 10+00 on the sheet it is located.

15. Label the 3" water meter **3" Thru/Flo Compound Meter**.

16. The water main layout appears to be incorrect. Per JCSA inspector, the 12” water main was installed along the right side of the service road by Toano Contractors a few years back under the JCC project #SP-0037-2010. Show the 12” water main as it was constructed. The 12” water main ends at the blow-off just past the fire hydrant by the maintenance shed. The water main never was installed within the Colonial Pipeline easement. Revise connection point of proposed to existing water main on plan and profile.

17. The sewer force main parallel with the 12” water main also ends prior to crossing the Colonial Pipeline easement. It ends with a blow-off valve just past the tee to the maintenance building’s grinder pump. Locate blow-off. Revise connection point of proposed to existing force main on plan and profile.

18. 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. As far as JCSA knows, this 8” water main is still located in the grass area where the proposed addition is going. The force main parallel to this water main was never installed either. Revise plan. It is imperative that the water system and sewer system are correctly located and as-built drawings are created.

19. Move the fire hydrant out of the proposed sidewalk.

20. Determine if the fire hydrant (shown in the sidewalk) is connected to the 12” water main or is still connected to the 8” main.

21. The JCSA sewer easement shown shall be labeled with recordation reference provided. Part of this sewer easement was to be extinguished (see attached plat). Was this easement plat recorded? If not label the easement per previous easement plat that was to have been recorded. The sewer manhole appears to have never been relocated and the sewer main was not shortened. Please verify. Determine how to correct sewer easement situation.

<u>Sheet 15:</u>

22. Add the note “See JCSA detail JR.1” in the note about water lines to be restrained.

23. As stated above: The 12” water main ends at the blow-off just past the fire hydrant by the maintenance shed. The water main never was installed within the Colonial Pipeline easement. Revise connection point of proposed to existing water main.

24. 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.

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

26. Revise connection point of proposed to existing water main as stated above.

<u>Sheet 16:</u>

27. Add the note “See JCSA detail JR.1” in the note about water lines to be restrained.

28. 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.

29. Add the word "Private" on the callouts of the proposed 2" force main.

30. Label the bends and stationing where the force main goes under the water mains.

31. Verify the stationing of proposed force main connection to the existing force main and the first bend after the connection.

32. Verify the location (shown at Sta. 11+70 +/-) for the storm sewer crossing the force main.

33. Revise connection point of proposed to existing sewer force main as stated above.

<u>Sheets 20 & 21:</u>

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

<u>Sheet L-3.2:</u>

35. There is a light pole between the PIV and the water main to the 1-story building. Move the light pole to a minimum of 5' away from the outside edge of any water appurtenance. It may be helpful to the fire department if the light pole was even farther away from the PIV.

<u>Water Data Sheet:</u>

36. Add the JCC Case number SP-0104-2015 at the top of the page.

37. For the Peak Hour Demand, use the GPM from the Water Fixture Units provided and back in the other quantities. This established the need for the water meter sizes required for the project.

38. List the Protectus III meter (or Detecto meter) and quantity on the list of meters required for the project.

39. Revise lengths of water main.

<u>Pump Station Calculations:</u>

40. Calculations are to be corrected per conversation between Danny Poe and Jason Grimes. These include but not limited to:
    a) Addressing the assisted living addition in the Summary,
    b) Correcting pump rate and pump curve for the grinder pump,
    c) Correcting Peak inflow,
    d) Bouyancy calculations (installation diagram shows 48" diameter, calculations call out 5' diameter),
    e) E-One pump data was provided in report but Hydromatic Pentair pump was listed in the report. Why?

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

CERTIFICATION OF SOURCE OF TITLE: TAX PARCEL ID. #591010026

THE PROPERTY SHOWN AS TAX PARCEL ID. #4820100003 ON THIS PLAT WAS CONVEYED BY AMERICAN RETIREMENT CORPORATION, A TENNESSEE CORPORATION, TO WILLIAMSBURG LANDING, INC.,A VIRGINIA NON-STOCK, NON-PROFIT CORPORATION BY DEED DATED SEPTEMBER 13, 1996 AND RECORDED AS DEED BOOK 809, PAGE 797, ALL BEING DULY RECORDED IN THE OFFICE OF THE CLERK OF THE CIRCUIT COURT OF THE COUNTY OF JAMES CITY.

OWNER'S CERTIFICATION

THIS EASEMENT DEDICATION AND EXTINGUISHMENT SHOWN ON THIS PLAT IS WITH THE FREE CONSENT AND IN ACCORDANCE WITH THE DESIRES OF THE UNDERSIGNED OWNERS, PROPRIETORS AND/OR TRUSTEES.

_____ _____

DATE

CERTIFICATE OF NOTARIZATION:

COMMONWEALTH OF VIRGINIA

CITY/COUNTY OF _____

I,_____ A NOTARY PUBLIC IN AND FOR THE CITY/COUNTY AND STATE AFORESAID, DO HEREBY CERTIFY THAT THE PERSON WHOSE NAME ARE SIGNED TO THE FOREGOING WRITING HAS ACKNOWLEDGED THE SAME BEFORE ME IN THE CITY/COUNTY AFORESAID.

GIVEN UNTO MY HAND THIS_____ DAY OF _____, 20____.

_____

NOTARY PUBLIC SIGNATURE

MY COMMISSION EXPIRES: _____

NOTARY REGISTRATION NUMBER: _____

SURVEYOR'S CERTIFICATE

_____ 01-14-11

RONALD W. EADS, L.S. #1948 DATE

CERTIFICATE OF APPROVAL

THIS EASEMENT DEDICATION AND EXTINGUISHMENT IS APPROVED BY THE UNDERSIGNED IN ACCORDANCE WITH EXISTING REGULATIONS AND MAY BE ADMITTED TO RECORD.

_____ _____

DATE AGENT FOR JAMES CITY SERVICE AUTHORITY

GENERAL NOTES

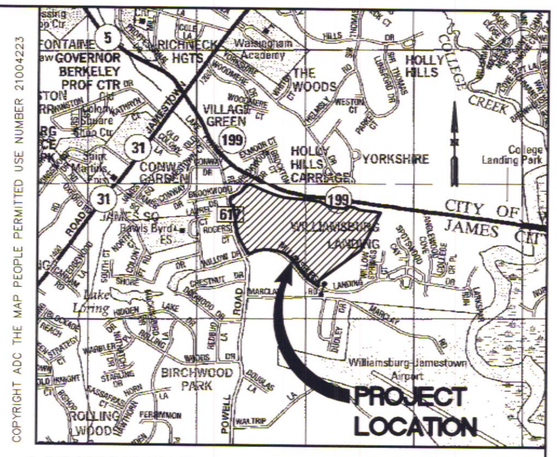
1. PROPERTY IS ZONED MULTIFAMILY RESIDENTIAL, R-5, (WITH PROFFERS) (Z-0002-2008)(SUP-0018-2008).
2. THIS PLAT IS BASED UPON RECORD AND OTHER AVAILABLE INFORMATION AND DOES NOT REPRESENT A CURRENT FIELD BOUNDARY SURVEY. THIS PLAT WAS PREPARED WITHOUT THE BENEFIT OF A CURRENT TITLE REPORT, OTHER THAN SHOWN THERE MAY BE ADDITIONAL EASEMENTS, COVENANTS, AND / OR RESTRICTIONS WHICH MAY AFFECT THESE PROPERTIES.
3. PROPERTY SHOWN HEREON IS A PORTION OF TAX MAP PARCEL NO. 4820100003, 5560 WILLIAMSBURG LANDING DRIVE, WILLIAMSBURG, VIRGINIA 23185.
4. THE PURPOSE OF THIS PLAT IS FOR THE DEDICATION AND VACATION OF PORTIONS OF JCSA EASEMENTS BETWEEN JCSA AND WILLIAMSBURG LANDING, INC.
5. EASEMENT DENOTED AS "JCSA UTILITY EASEMENTS" ARE FOR THE EXCLUSIVE USE OF THE JAMES CITY SERVICE AUTHORITY AND THE PROPERTY OWNER. OTHER UTILITY SERVICE PROVIDERS DESIRING TO USE THESE EASEMENTS WITH THE EXCEPTION OF PERPENDICULAR UTILITY CROSSINGS MUST OBTAIN AUTHORIZATION FOR ACCESS AND USE FROM JCSA AND THE PROPERTY OWNER. ADDITIONALLY, JCSA SHALL NOT BE HELD RESPONSIBLE FOR ANY DAMAGE TO IMPROVEMENTS WITHIN THIS EASEMENT, FROM ANY CAUSE.
6. ANY EXISTING UNUSED WELLS SHALL BE ABANDONED IN ACCORDANCE WITH STATE PRIVATE WELL REGULATIONS AND JAMES CITY COUNTY CODE.

LINE TABLE

LINE	BEARING	LENGTH
L1	S40°11'04"W	8.02'
L2	N48°08'07"W	51.37'
L3	S41°51'53"W	10.00'
L4	S41°51'53"W	7.55'
L5	S48°08'07"E	51.66'
L6	S40°11'04"W	12.65'
L7	N47°55'14"W	183.75'
L8	N42°04'46"E	20.00'
L9	S47°55'14"E	131.64'
L10	N40°11'04"E	45.44'
L11	N59°50'18"E	87.14'
L12	N71°05'18"E	17.26'
L13	N18°54'42"W	18.87'
L14	N71°05'18"E	10.00'
L15	S18°54'42"E	18.87'
L16	N71°05'18"E	23.34'
L17	N82°20'18"E	49.08'
L18	S87°33'19"E	23.85'
L19	S88°56'14"E	14.52'
L20	N1°03'46"E	18.94'
L21	S88°56'14"E	10.00'

LINE TABLE

LINE	BEARING	LENGTH
L22	S1°03'46"W	18.94'
L23	S88°56'14"E	107.57'
L24	N1°03'46"E	14.65'
L25	S88°56'14"E	10.00'
L26	S1°03'46"W	14.65'
L27	S88°56'14"E	21.03'
L28	S1°03'46"W	20.00'
L29	N88°56'14"W	159.85'
L30	S1°03'46"W	9.67'
L31	N88°56'14"W	10.00'
L32	N1°03'46"E	9.71'
L33	N87°16'51"W	16.03'
L34	S82°20'18"W	45.14'
L35	S71°05'18"W	46.66'
L36	S59°50'18"W	36.91'
L37	S30°09'42"E	7.50'
L38	S59°50'18"W	10.00'
L39	N30°09'42"W	7.50'
L40	S59°50'18"W	34.80'
L41	S40°11'04"W	41.98'
L42	N49°48'56"W	20.00'



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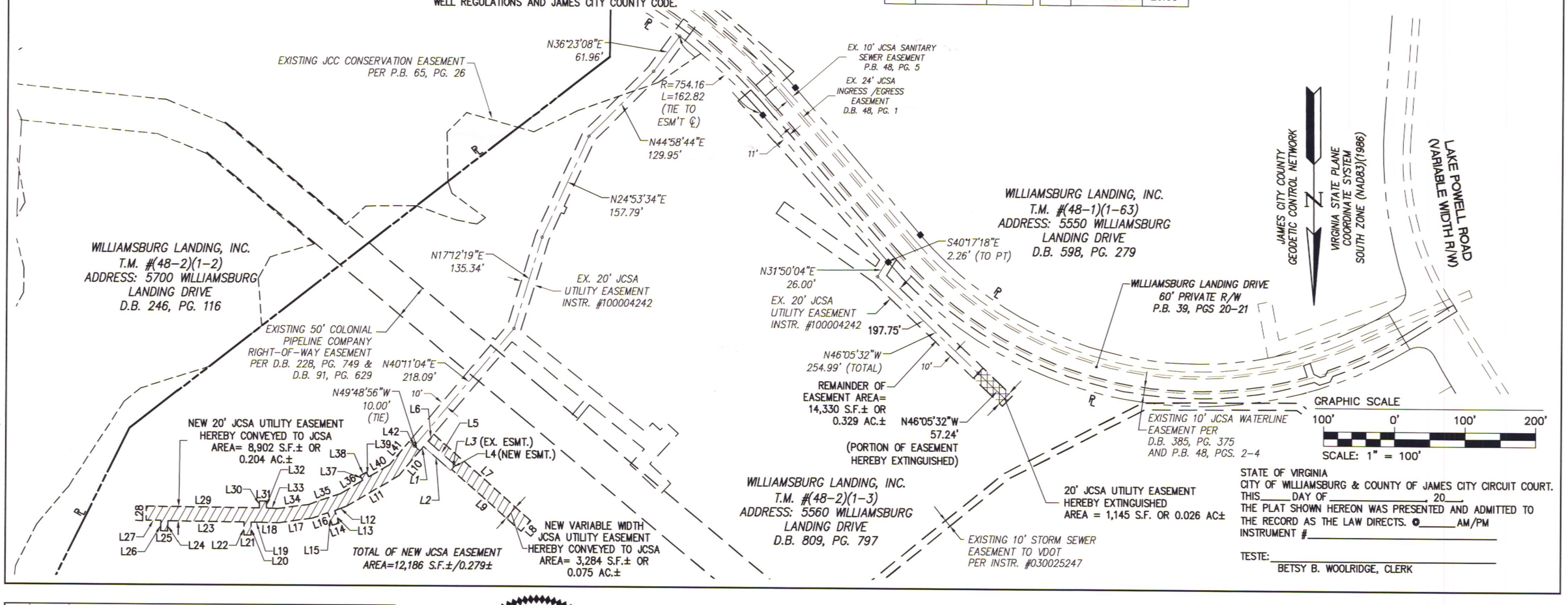
LOCATION MAP SCALE: 1"=2000'



STATE OF VIRGINIA
CITY OF WILLIAMSBURG & COUNTY OF JAMES CITY CIRCUIT COURT.
THIS_____ DAY OF _____, 20___.
THE PLAT SHOWN HEREON WAS PRESENTED AND ADMITTED TO THE RECORD AS THE LAW DIRECTS. @_____ AM/PM
INSTRUMENT #_____

TESTE:_____
BETSY B. WOOLRIDGE, CLERK

Rev.	Date	Description	Revised By

COMMONWEALTH OF VIRGINIA
01/14/2011
RONALD W. EADS
LIC. NO. 001948
LAND SURVEYOR

AES CONSULTING ENGINEERS
5248 Olde Towne Road, Suite 1
Williamsburg, Virginia 23188
Phone: (757) 253-0040
Fax: (757) 220-8994
www.aesva.com
Hampton Roads | Central Virginia | Middle Peninsula

PLAT SHOWING JCSA UTILITY EASEMENT DEDICATED BY WILLIAMSBURG LANDING, INC. AND EXTINGUISHMENT BY JAMES CITY SERVICE AUTHORITY

Jamestown District James City County Virginia

Project Contacts:	RWE / NB
Project Number:	8162-06
Scale: 1"=100'	Date: 01/14/11
Sheet Number	1 of 1

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