



COMMONWEALTH OF VIRGINIA  
**COUNTY OF HENRICO**

DEPARTMENT OF PUBLIC UTILITIES  
(804) 501-4517

## **INTER-OFFICE MEMORANDUM**

**TO:** Mike Kennedy, Planning  
**FROM:** Ireini Botros, Public Utilities  
**SUBJECT:** Old Three Chopt Road Apartments (Concept Plan POD2022-00011)  
**DATE:** January 28, 2022

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We have reviewed a concept plan for the referenced project submitted to the Planning Office on January 10, 2022. The concept plan proposes a multi-family residential apartment building (325 dwelling units). Our comments are intended to provide guidance for requirements for design and construction of the water and sewer service that will be provided by the County systems. Construction plans for water and sewer shall be designed in accordance with DPU Standards. The levels of detail provided in the following comments are based on the amount of detail provided on the plans.

### **General**

1. Utility Agreements for water and sewer service will be required for this project. Therefore, include with the construction plan submittal the information sheet and associated attachments (form F-5) for development of Utility Agreements.
2. A DEQ permit (certificate to construct) will be required for this project since this project will be serving more than 400 people. A tech-memo will be issued only after DPU receives a copy of the approved permit.
3. Revise the water and sewer design calculations form as follows:
  - Provide downstream manhole GIS ID number.
  - Use a water system peak factor of 1.75 for maximum day demand and 2.7 for peak hour demand in all locations.
  - Revise total design peak flow, GPM to use the maximum day demand instead of the peak hour flow.

### **CV-101 (Existing Conditions) & CE-101 (Demolition and Phase I E&SC Plan):**

4. Correctly label Old Three Chopt as "public" and add a note on the plan that the R.O.W will be vacated.

### **CU-101 & CU-102 (Utility Plan):**

5. Label the proposed sewer main "private" and reduce the utility easement to only include public water utilities since no other customers will be served by this line.
6. Based on the combined fixture value total and maximum demand in the meter sizing form, either one (1) 2" meter or two (2) 1 1/2" meters will be required instead of two (2) 2" meters. At a slightly greater cost, dual 1 1/2" meters are recommended for more reliability.
7. Provide a 12" waterline within Old Three Chopt Road from North Gayton Road to the back where the proposed road will connect. A looped 12" waterline will be needed from North Gayton Road to Broad Street to allow for adequate supply from either direction in case of shutdown.
8. Revise the size of the water main on the eastside of the building to 8" to the last hydrant because 8" pipe is the minimum size allowed for fire protection for this zoning per DPU Standards. Also, provide a ductile iron lead and tee for fire hydrant (instead of 90-degree bend) in accordance with D-495.
9. Sewer tie-in does not appear to have adequate core hole separation of 6" between the existing 12" sewer and required 8" sewer. Evaluate other tie-in locations and sewer alignments to address this
10. The recordation information for the existing sanitary sewer easement is incorrect. Please review and revise.

11. Label size and material of all existing utilities shown on the plan.
12. DPU records show existing sewer laterals connected to existing manhole 7 and between existing manholes 2&3. Abandon the lateral at the manhole per DPU standards D-170 since it will not be used to serve the proposed site. In addition, add a note stating that "sanitary sewer lateral is to be abandoned consistent with DPU Spec. 1.4.01C" to address the other lateral at the main.
13. If a building demolition permit is desired prior to construction plan approval, then a separate disconnection or abandonment plan for 13190 & 13196 N. Gayton Road must be prepared and approved in advance of the demolition permit showing either disconnection locations for the sewer services or complete abandonment of sewer services at the sewer main. Disconnection or abandonment of the services would be required prior to approval of the demolition permit. For the disconnection plan, the following would need to be shown on the disconnection plan:
  - Sewer laterals are to be disconnected at the property line or edge of utility easement.
  - Add a note on the plan stating whether services will be capped for later abandonment.
  - Connections shall be plugged prior to approval of site demolition permit.
14. Provide at least 10' of horizontal separation between the storm pipe and sanitary sewer pipe while maintaining 8' between waterline and parallel storm pipe.
15. Keep the proposed waterline 4' from the curb face.
16. Show the symbols of the domestic backflow preventer and reduced pressure detector assembly inside the building.
17. Specify a reduced pressure detector assembly for the fire line.
18. In accordance with State Waterworks Regulations, fire pump will need a low pressure cut off on suction side for 10 psi.

**CU-301 (Sanitary Sewer Profile):**

19. The following comments pertain to Sanitary Sewer Profile EX MH 01 to MH-07:
  - Revise the invert (in) for the proposed 8" sewer main at the existing manhole 1 to match crowns between the 8" and 12" sewer pipes.
  - Revise the size of the existing pipes for the invert (in) and invert (out) at the existing manhole 1 to 12".
  - Review and revise the invert (in) 194.77 at manhole 1 which is lower than invert out.

**CU-303 & 304 (Waterline profiles):**

20. The following comments pertain to the waterline profiles:
  - Sheet CU-304 is missing.
  - Not all waterline profiles have been shown. Please provide.

**CU-503 (Utility Details):**

21. Revise the construction type to wood frame based on the value of class of construction coefficients F of 1.5 within the ISO form.
22. Revise the maximum demand within the meter sizing form to 125 gpm per figure 4-3 AWWA manual M22.

If you have any questions, please call me at 501-4512 or John Clark at 501-4501.

Sincerely,

*Ireini Botros*  
Ireini Botros  
Utilities Engineer

cc: Brian Brewer, P.E., Kimley-Horn and Associates, Inc.  
Steve Hormann, Edward Rose Development Company, LLC

bc: Marchelle Sossong, Ralph Claytor  
John Clark  
Megan Gallagher, Daniel Ivy

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