

January 20, 2023
Revised: March 1, 2023

Essex County
202 So. Church Lane
P.O. Box 1079
Tappahannock, VA 22560

Re: Impact Analysis of Essex Point at Mount Clement on Public Utility System

Essex Point at Mount Clement is a proposed mixed-use development located along Route 360 (Richmond Highway), between the Route 17 (Church Lane) intersection and the Lagrange Industrial Park. The project includes approximately 80,000 sf of commercial space (current design is at 80,238 sf) along with a mix of housing typologies, providing 139 total units. It is the project's desire to tie to both the public water and sewer system.

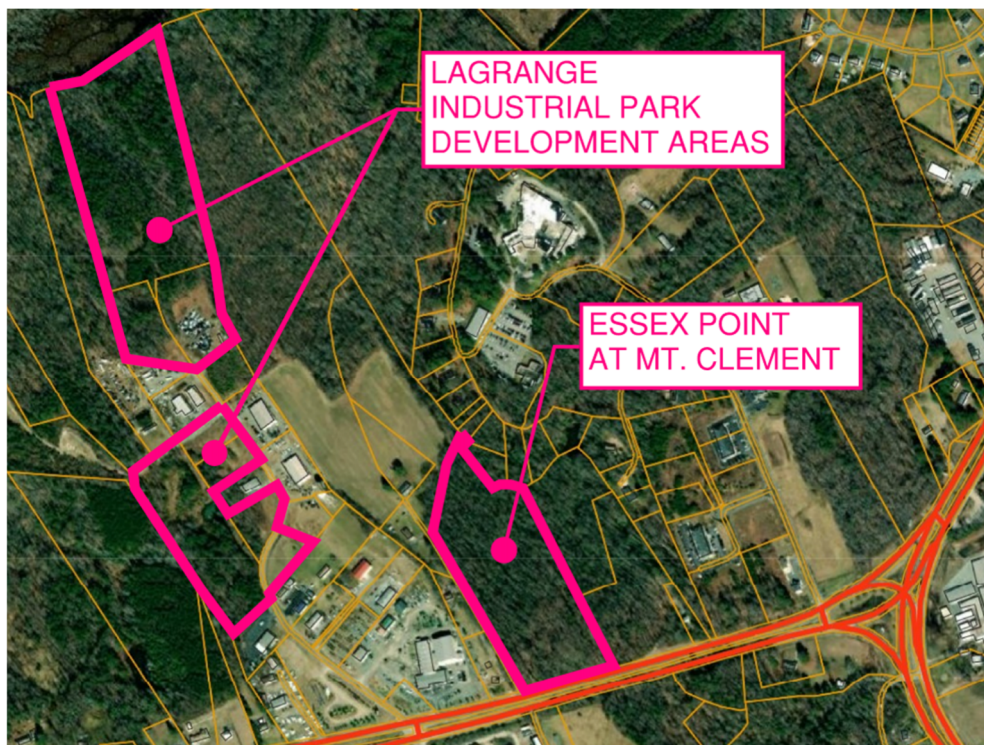


Image 1: Overall Area Map

Introduction

While public water and sewer are available within Route 360, it is our understanding that approval must be granted by Essex County for any entity to tie to the public infrastructure. Per a meeting held with representatives of both Essex County and the Town of Tappahannock, we have learned the following:

- The wastewater treatment plant is operated by the Town of Tappahannock
- An expansion of the wastewater treatment plant increased the original capacity by 400,000 GPD. There is an agreement between the County and Town that 200,000 GPD of that additional capacity is ear-marked for Essex County.
- Essex County representatives indicated the importance of preserving the wastewater treatment plant capacity for industrial development at Lagrange in line with the Conceptual Plan that was prepared as a part of the Site Certification Report for Lagrange Industrial Park, prepared in April 2020 by the Middle Peninsula Alliance and Draper Aden Associates.
- There was no concern with regards to capacity to tie into the public water system.

This analysis has been prepared to demonstrate that the request to tie to the public utility systems will not adversely effect Essex County’s ability to attract industrial development to the region. Furthermore, this project will provide additional revenue to the County and provide needed space for both commercial and residential uses.

Overall Wastewater Demand

As noted, Essex County has 200,000 GPD of availability within the Town’s wastewater treatment plant. It is our understanding that the County has used some of that capacity, but the vast majority of it is still available. The County has stated that it desires to maintain a portion of that capacity for the expansion of the Lagrange Industrial Park.

The request for the Essex Point at Mt. Clement site is based on the development of 6 attached duplexes and 85 senior housing units located on the north side, with 48 apartment units located over top of approximately 80,000 sf of commercial space. The overall wastewater demand would be approximately 51,000 GPD.

Use	Units/SF	Rate	Total
Duplex Units	6	400 GPD	2,400 GPD
Senior Housing	85	200 GPD	17,000 GPD
Apartments (1BR)	28	200 GPD	5,600 GPD
Apartments (2BR)	20	300 GPD	6,000 GPD
Commercial	80,000	250 GPD per 1,000 sf	20,000 GPD
		TOTAL	51,000 GPD

Table 1: Wastewater Demand Generated by Essex Point at Mt. Clement
Rates are based on BOCA National Plumbing Code

Per the Site Certification Report for the Lagrange Industrial Park, additional development could add 315,000 sf of industrial development over 29.24 acres. Industrial development averages a water/sewer demand of 50 GPD per 1,000 sf of development, which on this site could see a demand of 15,750 GPD. It should also be noted that maximum development of ground floor industrial sites is typically between 8,000 sf – 12,000 sf, which appear to be achieved here, as the Conceptual Development Plan measures in at approximately 10,700 sf per acre.

In accepting wastewater for development both at Essex Point at Mt. Clement and Lagrange Industrial Park the overall additional demand would be 66,750 GPD, leaving approximately 85,000 GPD for additional development, which could be split across other development opportunities, industrial, commercial, and residential, to further support the County’s economic vitality and potential. That excess capacity could support an additional 1,000,000 sf of industrial development on top of the conceptually planned Lagrange Industrial Park expansion, while still having 35,000 GPD – 40,000 GPD available which is enough to support another project similar to this proposed one.



Image 2: Conceptual Development Plan Excerpt from Site Certification Report for Lagrange Industrial Park

Alignment with Essex County Comprehensive Plan

The Essex Point at Mt. Clement site falls within the Development Service District of the Comprehensive Plan. This district is described as “the most suitable areas for new population growth” within the County, noting its ability to preserve the rural nature of the County with a focused area for development. Moreover, the Comprehensive Plan also states that growth and development in these areas “can be economically provided with utilities, services, and employment.” The Comprehensive Plan further notes that services within this District are aimed to be serviced by “sewer and water facilities that can service development at greater residential densities or can service industrial or commercial uses.”

The provision of those items results in protection of the resource protection areas and agricultural uses. Furthermore, the rezoning of this parcel will further enhance the needs of the County in accordance with the stated goals of Planned Unit Developments, as it will provide affordable housing, dedicated green space, as well as community based facilities focused around health and wellness.

Conclusion

Overall, provision of public water and wastewater service to Essex Point at Mt. Clement can serve as a catalyst to industrial expansion, while also being aligned with the County’s Comprehensive Plan. The utility impact of this project does not disallow the County to provide water and wastewater to future industrial uses, as a significant amount of development can be supported by the current capacity, beyond the expansion of the Lagrange Industrial Park. Moreover, this request for public service of water and wastewater is in line with the description of the Development Services District, being offset by the quality of the project and its provision of affordable housing, green spaces, and community-based facilities and services that will benefit the general public