

WATER & SANITARY SEWER ENGINEERING REPORT

for
Morris Street Apartments

Prepared by

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Applicant

Ronald Stein
204 Winding Brook Road
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EV Job# 21324



I. Project Description

The Applicant, Ron Stein, is proposing a 40-unit, 4-story apartment building, with a building footprint of 9,375 SF+/- at 18 Morris Street, Albany, NY 12208. The building will have a total of 40 bedrooms. There is no on-site parking and off-site parking will be provided on the city streets. The total lot area is 0.28 acres +/- and is located on Tax Parcels 76.31-1- 72, -73, -74, and -75. The project will be serviced by public water and sewer.

II. Existing Conditions of Site and Surrounding Areas

The site is bordered by Morris Street to the northeast, Lark Street to the southeast, and residential properties to the southwest and northwest. The site is mostly comprised of impervious areas, with an asphalt lot located on the eastern portion of the lot and some trees/vegetative growth on the west. Per aerial photos from 2017, it is our understanding that multi-family residential structure existed on the property but has since been demolished. A 12" combined sanitary/storm sewer runs from northwest to southeast along Morris Street, between the sidewalk and the property line of the subject property. An 8" waterline is located within Morris Street as well as Lark Street. An existing 4" water service, which most likely serviced the demolished house, connects to the 8" waterline within Morris Street. An aerial photo of the site is provided in Appendix A.

III. Site Soils Information

The soils on the site were mapped using the NRCS Web Soil Survey. The following soils are located on the site:

- Ut – Urban Land-Udorthents complex, 0-8 percent slopes. These soils are typically consistent with previous developed land.

IV. Proposed Development/Utilities

As stated in the project description, a 40-unit, 4-story apartment building is proposed, with entrances from both Morris Street and Lark Street. The project will include sidewalks and other hardscaping. There is no on-site parking and off-site parking will be provided on the city streets. Stormwater management will be provided in an underground tank. This proposed tank will capture runoff from the proposed roof leaders and will reduce runoff rates in the post-development condition to meet the City of Albany Combined Sewer Overlay requirements prior to discharging to the existing combined sewer within Morris Street. A proposed sanitary sewer service will discharge via a new, separate 6" SDR-26 PVC sewer lateral into the existing combined sewer. Water service will be provided to the proposed building via a 6" DIP CL 52 water line that will tap into the existing 8" water line located in Morris Street. Backflow prevention devices will be installed for all utilities.

V. Water and Sewer Design Calculations

The proposed sewer will be designed and constructed in accordance with City of Albany and Albany County Health Department Standards. The sewer design flows were calculated by utilizing existing flows for a similar development (Method 3 in Section B.6.b of the New York State Design Standards for Intermediate Sized Wastewater Treatment systems, dated March 5, 2014.) The 132 apartments located at 16-30 Sheridan Avenue, which are currently owned by Applicant, are used for the basis of flows. This flow data was obtained in the following reports:

1. "Sanitary Sewer Engineer's Report for No. 191 North Pearl Street", prepared by Hershberg & Hershberg Consulting Engineers and Land Surveyors, and dated June 22, 2021
2. "Water Engineering Report for 191 North Pearl Street", prepared by Hershberg & Hershberg Consulting Engineers and Land Surveyors, and dated June 23, 2021.

The following excerpt was taken from the aforementioned Sewer Engineer's report:

Computation of Average Water Use at 16-30 Sheridan Avenue
Data from bill from City of Albany Department of Water & Water Supply

<u>Period</u>		<u>Water Used (CF)</u>
3/4/20 to 7/1/20		97,100
		97,100
Total Days	118	
Daily Use (CF)		822.88
Daily Use (Gallons)		6,163
Usage in GPD per Apt (132)		46.69
For Report Value (GPD)		50

Fig. No. 2 – Establishing use by bedroom
(all apartments are 1 BR)

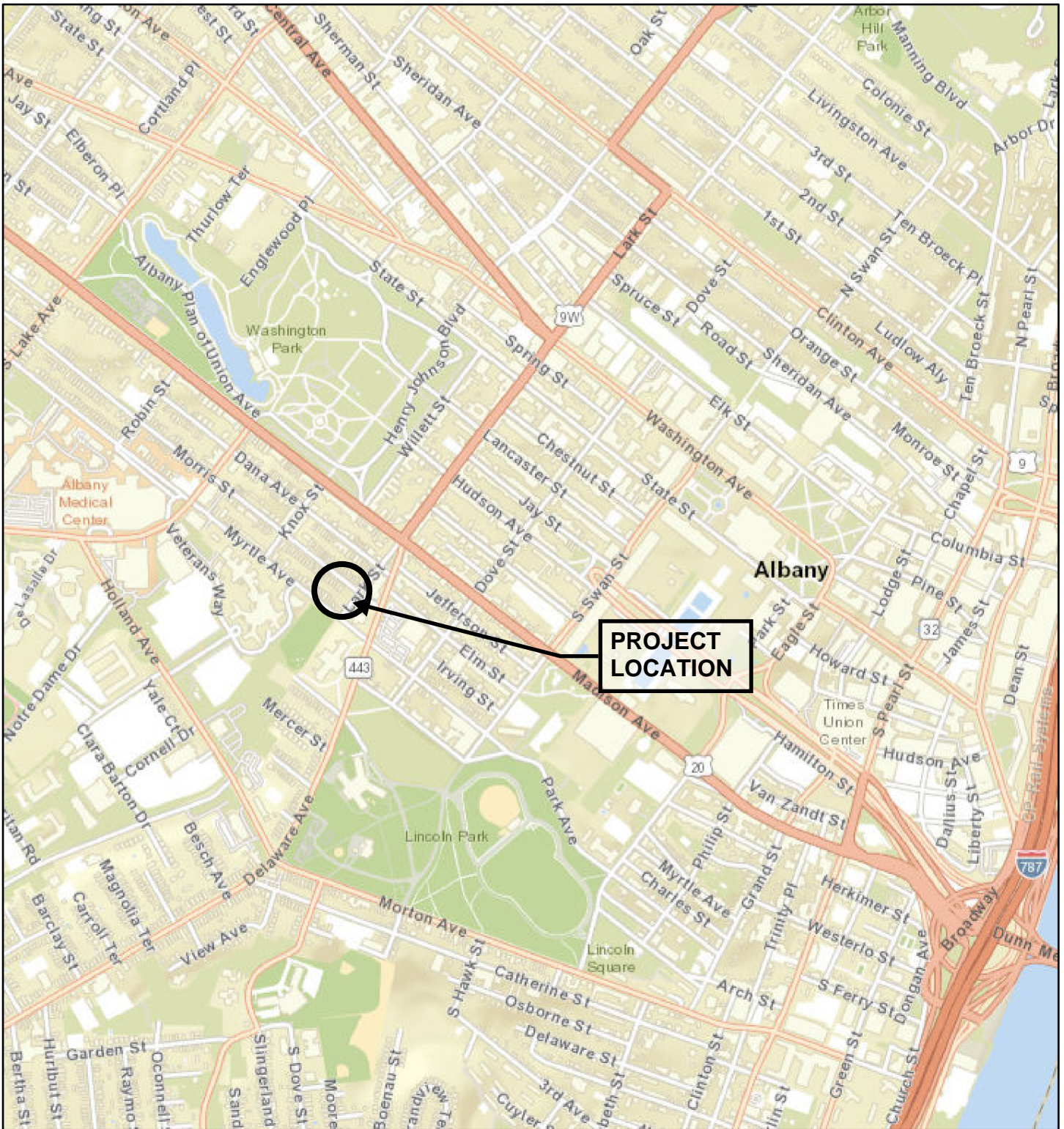
For the proposed project of 40 beds, the water/sewer demand is as follows:

- Water/Sewer Demand = 40 beds x 50 GPD/bed = 2,000 GPD
- Average Flow = 2,000 GPD x (1 day/ 24 hours) x (1hr/60 min) = 1.39 GPM
- Peak Flow = 4 x Average Flow = 5.56 GPM

VI. Infiltration and Inflow (I/I) Reduction to Combined Sewer

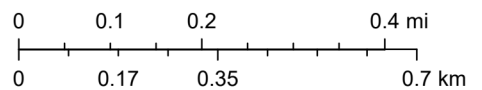
Due to the sewer demand being less than 2,500 GPD, the I/I requirement is not applicable for this project. The project will still provide a treatment device, in the form of a hydrodynamic separator, for the 90% storm (Water Quality Storm Event) and reduce the stormwater peak discharge rates per the requirements in the Combined Sewer Overlay prior to discharging to the combined sewer.

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1:18,056



Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community



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